

INTERNATIONAL BIBLIOGRAPHY OF VEGETATION MAPS

Edited by A. W. Küchler

**Volume 1
North America**

University of Kansas Libraries – 1965

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**INTERNATIONAL
BIBLIOGRAPHY OF
VEGETATION MAPS**

August 1952
Edited by *W. W. Küchler*
Edited by A. W. Küchler

Volume 1

VEGETATION MAPS OF NORTH AMERICA

Compiled by

A. W. Küchler
University of Kansas

and

Jack McCormick
Philadelphia Academy of Science

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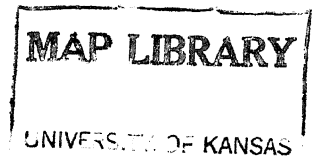
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Editor's Foreword

The International Colloquium on Vegetation Mapping held at Toulouse, France, in 1960 determined upon the production of an international bibliography of vegetation maps. The overall preparation of the bibliography was entrusted to me, in part because I had already started on such a project.

The *International Bibliography of Vegetation Maps (IBVM)* is to be published in three volumes. The first of these, covering all of North America has been compiled by Dr. Jack McCormick and myself. Dr. McCormick collected a substantial part of the references and carried out all scale calculations.

Inevitably, further vegetation maps will be published, and older ones that have been omitted from the basic volumes of the *IBVM* will come to light. I shall be most grateful if readers who discover any errors or omissions will send details to me at the address given below so that the maps concerned may be included in a supplement at a later date.

Many friends and colleagues have already helped in compiling the *IBVM* and it is quite impossible to list them here by name. All of them deserve the most sincere thanks. I take great pleasure in expressing my gratitude to the National Science Foundation for making the preparation of the bibliography possible (Grant No. GN-186), and to the University of Kansas Libraries for their most generous cooperation and their readiness to publish such an extensive work.

Department of Geography
University of Kansas
Lawrence, Kansas 66045

A. W. KÜCHLER

Introduction

Definition of a Vegetation Map

For the purpose of this catalog, a vegetation map is considered to be a map or chart on which natural or semi-natural vegetation types are indicated.

Maps that convey only the distribution of certain species (area maps) or the location of individual plants in a plot (quadrat or community charts) are excluded. Certain specialized maps, such as land-use maps and timber-stand-classification maps are included only if they contain pertinent vegetation units. The United States Geological Survey topographic maps with "woodland overprint", and similar maps for other nations, are not listed in this catalog because of their multiplicity, standard form, and frequent revision, and because they are adequately indexed by their publishers.

Although maps of hypothetical areas are not included in the catalog, maps indicating hypothetical distribution of vegetation in a specific geographical area have been entered. These include such entries as a "Map showing hypothetical distribution of forests and tundra (in North America) during maximum glaciation of the Wisconsin Epoch" (Transeau, 1903, p. 411).

Plan of the Bibliography

Only published vegetation maps are listed in the bibliography. The data on each map are arranged in three groups as follows:

1. The title of the map, the date of preparation (if available), the color, and the scale.
2. The legend, given in the original language provided it is western European.
3. The author of the map, and when and where it was published.

The information provided by the inclusion of the legend makes further annotation unnecessary.

In such a scheme as the present one, the large number of collaborators distributed through many different countries make exact uniformities of style and method difficult to achieve, but the basic pattern will be used throughout.

The Map Title

The title is given as printed on the face of the original map or, if a title was not incorporated on the map face, the explanatory legend accompanying the map is accepted, in whole or in part, as the title. In some cases, a fragmentary title appeared on the face of the map and a more complete title appeared in the legend. For these maps, the title is given as it appears on the map face, supple-

mented by materials extracted from the accompanying legend and enclosed in brackets. For a few maps, neither the title which appeared on the face, nor the legend was sufficient to describe the nature and coverage of the map. If this information could not be inferred from the title of the paper or book in which the map was published, or by the placement of the map in the catalog, a geographic place name or a short descriptive phrase enclosed in brackets was inserted in the title.

Several maps had neither a title nor a pertinent legend. For these maps a descriptive title was supplied and enclosed in brackets. The information for a supplied title was excerpted from the text associated with the map or was derived from inspection of the map itself.

Date

The date which appears before the map title at the left of the column is the year or the period during which the vegetation was as described in the legend. In a few instances, this includes periods such as Cretaceous, Pleistocene, etc. Usually, however, this date refers to the time of mapping. If the date of mapping was not printed on the map, it was obtained from the text, either from a direct statement by the author or by inference from the latest date of field work. If neither of these was possible, the date of publication is cited and enclosed in brackets.

Color of map

Below the title is an indication of the color of the map. The majority of the maps are printed in black ink on white paper, and are described as "black and white". A few maps were printed in two colors, usually black in combination with red or green. These are described as, "red, black, and white", or "green, black, and white". When more colors were used, the map is described as "in color".

Scale

The scale of the original map is written as a fraction, e.g., 1:200,000, and is printed below the map title, at the right side of the column. If the scale was printed as a fraction on the original map or in its accompanying legend, it is cited without brackets. The fractional scale is enclosed in brackets if it was calculated from a verbal scale (e.g., 1 inch equals 4 miles), by measurement of a scale bar (linear scale), or by comparison of a distance on the cited map with the distance between the same points on a map of known scale.

Some maps had no indication of scale and were of areas which could not be

located on other maps readily available to the compilers. In this bibliography, the scale of these maps is indicated as "incalculable".

Legend

The legend items of the original map are given as printed, except that only the first word, place names, generic names, and similar words are capitalized, and all scientific names of taxa are italicized. The legend, in so far as it pertains to vegetation or the absence of vegetation (e. g., "bare rock", "glacier", "permanent snowbank", "unforested", "urban", "cultivated land"), is presented fully. Legend items pertaining to trails, roads, railroads, streams, political boundaries, topography, soils, geology, and similar features were ignored. Regional names which convey no direct information on vegetation were admitted to indicate that a major vegetation region is distinguished on the map from other geographic regions, formulated on concepts other than vegetation cover (e. g., Stone's map of New Jersey (1910) shows the positions of the "Pine Barrens" and "Maritime marshes", both of which are distinct vegetation regions, as well as the "Coast District", which is a physiographic region).

In this catalog, the legend items are numbered consecutively. This was done for the convenience of the user so that the detail of various maps could be compared more easily and so that legend items for a single map will appear more distinctly. The numbers do not necessarily correspond to the numbering system utilized on the original map. The legend items on many maps bore no numbers or other designation, some were listed by letters of the alphabet, and others bore combinations of letters or numbers and letters.

The legends of some maps were complex and contained classificatory units of several ranks. To keep the items of these maps in an order comparable to those of other maps in the catalog, consecutive arabic numbers were assigned to the major communities (e. g., ponderosa pine forest), capital letters were assigned to major composite units, especially to physiognomic units (e. g., coniferous forests), and Roman numerals were assigned to fill more inclusive supercategories (e. g., Western Forests). Subdivisions of the major communities were designated by lower-case letters (e.g., ponderosa pine with sagebrush undergrowth). This system results in a legend of the form shown below:

I. Western Forests

A. Coniferous forests

1. Ponderosa pine forest

a. Ponderosa pine with sagebrush undergrowth

On a few maps, the collected list of vegetation items in the legend did not include all of the vegetation items labeled on the map. The legends for these

maps in the catalog are expanded to include those additional items, which are cited exactly as written on the map. Several other maps had no collected list of the vegetation items depicted on them. For these maps, the vegetation items are entered in the catalog legend as they were printed on the map, arranged in the order which appeared to the compilers to be most logical. Owing to the diversity in the maps, especially with regard to the areas they encompassed, no simple rule could be applied universally to determine the arrangement of items. However, in most cases physiognomic types were grouped together (e.g., tundra, coniferous forests, deciduous forests, grasslands).

An occasional map had neither a collected list of vegetation items nor any items labeled on the map. The only identification of the mapping units was conveyed in the title of the map. For these maps, the legend items were written as they appeared in the title and were enclosed in brackets.

In a few instances, information gleaned from the text or from the accompanying legend was added to the legend items to clarify the item or to indicate the expanded utility of the map. Such information was enclosed in brackets.

Author and bibliographic reference

The name of the author of a map is given as it appears on the map, in some cases with the forename in full where only initials were given. The draftsman is not considered to be the author of the map.

If the author of the map is not identified on the map, in the accompanying legend, or in the text, the author of the paper or book in which the map appeared is considered also to be the author of the map. In a few cases, the author of the map was not identified, but it was obvious that the author of the paper was not responsible for the map. In such entries, the author of the map is listed as anonymous (Anon.). A map which is the work of someone other than the author of the book or paper in which it was published, is treated as a "contained reference"; its compiler's name is entered as author, followed by the date of publication and the italicized word, *in*, and the standard bibliographical citation for the book or paper in which it was published.

The date which appears below the name of the map's author is the year of publication of the map, normally taken from the title page of the book or journal volume in which the map appeared, but otherwise obtained from usual bibliographical sources and so indicated by enclosure in brackets.

After the date there follows a standard bibliographical citation of the book or article from which the map was taken, made up of full title and place of publication and publisher for books, or title of journal and volume, date, and page or position for serial articles. If the map was issued separately, its title is not repeated.

Reprinted and revised maps

Vegetation maps vary from original compilations based on ground surveys or aerial photographs, to revision of older maps which incorporate new data from original field work or data excerpted from maps or descriptions published by someone else, to synthesized maps that are compiled by combining information from two or more earlier maps.

Where a map was reproduced without any major changes (although it might be redrawn, reprinted at a different scale, or printed in a different color) it is listed as a reprint in a note following the bibliographic entry of the original map. If slight modifications or simplifications were made in the reprint, or if the reprint is a revision in which most features of the original are preserved, the reprint is listed in the same manner as stated above, but is prefaced by a statement such as, "Reprinted in simplified form".

Arrangement of entries

The primary arrangement of the entries is geographical, as indicated by the organization of the table of contents. This arrangement was selected in order to group maps of a given region or subregion and thereby facilitate the user's location of all maps pertinent to a given problem. Political boundaries (as of 1964) are used in circumscribing the regions, since the limits of many of the maps entered in the catalog are political rather than natural.

Each map is listed in the smallest regional category appropriate. If the area shown on a map lies in more than one country or state the map is placed in the next higher regional category. Within each regional category, the maps are listed chronologically, according to the date of preparation. When two or more such maps carry the same date, the map of the smallest scale is listed first, except that an original map is listed before any of its derivatives, regardless of scale. The concept on which this phase of arrangement is based is that maps of smaller scale usually depict larger areas. Thus, the maps for a particular year would tend to be grouped in descending order of areal inclusiveness.

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NORTH AMERICA

[Pleistocene] "MAP SHOWING HYPOTHETICAL DISTRIBUTION OF FOREST AND TUNDRA DURING MAXIMUM GLACIATION OF THE WISCONSIN EPOCH"

black and white [1:50,200,000]

LEGEND

- | | |
|------------------------|------------------------|
| 1. Tundra | 3. Deciduous forest |
| 2. Conifers (northern) | 4. Conifers (southern) |

TRANSEAU, EDGAR NELSON

1903 "On the geographic distribution and ecological relations of the bog plant societies of northern North America." *Botanical Gazette*, vol. 36, p. 411. (Reprinted, 1916 [1:69,000,000], with addition of "scrub" type, in Clements, Frederic E., *Plant succession, an analysis of the development of vegetation*. Washington, Carnegie Institution of Washington, Publ. no. 242, p. 374; 1931 [1:100,000,000], in Voss, John, "Preliminary report on the paleo-ecology of a Wisconsin and an Illinois bog." *Trans. Illinois State Acad. Sci.*, vol. 24, p. 136.)

[1884] "MAP SHOWING THE 'NORTHERN PINE BELT', AS DELIMITED FROM THE ADJOINING NORTHERN FOREST AND DECIDUOUS FOREST REGIONS BY SARGENT (1884)"

black and white [1:37,500,000]

LEGEND

- | | |
|-------------------------|-----------------------|
| 1. Northern [forest] | 3. Deciduous [forest] |
| 2. Northern pine [belt] | |

NICHOLS, GEORGE ELWOOD

1935 "The hemlock-white pine-northern hardwood region of eastern North America." *Ecology*, vol. 16, p. 403.

[1884] "MAP SHOWING THE POSITION OF THE FOREST, PRAIRIE AND TREELESS REGIONS OF NORTH AMERICA EXCLUSIVE OF MEXICO"

in color [1:15,400,000]

LEGEND

1. Coniferous forests
2. Deciduous forests
3. Prairies (less than twenty percent woodland, principally confined to the streams, but when protected from fire gradually spreading over the whole area)
4. Plains; treeless except along the bottoms of the principal streams

NORTH AMERICA: GENERAL

SARGENT, CHARLES SPRAGUE

1884 *Report on the forests of North America (exclusive of Mexico)*. U.S. Dept. Interior, Census Office, Tenth census of the U.S., vol. 9, map no. 1 in atlas. (Reprinted variously, including 1903 [1:30,000,000] in Schimper, A. F. W., *Plant-geography upon a physiological basis*. Second edition. Oxford, Clarendon Press, pl. 4; 1903 black and white, [1:49,000,000], in Transeau, Edgar N., "On the geographic distribution and ecological relations of the bog plant societies of northern North America." *Botanical Gazette*, vol. 36, p. 416; 1908 black and white, [1:56,200,000], in Ruthven, Alexander G., "The faunal affinities of the prairie region of central North America." *American Naturalist*, vol. 42, p. 389; 1915 black and white, [1:56,200,000], in Shelford, Victor E., "Suggestions as to the original habitat and distribution of various native insect pests." *Journal of Economic Entomology*, vol. 8, p. 172; 1931 black and white, [1:100,000,000], in Voss, John, "Preliminary report of the paleo-ecology of a Wisconsin and an Illinois bog." *Trans. Illinois State Acad. Sci.*, vol. 24, p. 136.)

1887 "VEGETATION REGIONS ACCORDING TO OSCAR DRUDE"
black and white [1:56,300,000]

LEGEND

- | | |
|---------------------------------|------------------------------|
| 1. Tundra | 10. Extreme desert |
| 2. Arctic alpine | 11. Saguaro desert |
| 3. Sitka spruce forest | 12. Texas-Mexican chaparral |
| 4. Ponderosa pine forest | 13. North Canadian forest |
| 5. Mexican mountain forest | 14. Canadian lake forest |
| 6. California forest | 15. Long-leafed pine forest |
| 7. Prairie | 16. Mexico-Antillean tropics |
| 8. Prairie-sagebrush transition | 17. Columbian tropics |
| 9. Great Basin sagebrush | |

KENDEIGH, S. CHARLES

1954 "History and evaluation of various concepts of plant and animal communities in North America." *Ecology*, vol. 35, p. 158.

[1898] "SKETCH MAP OF THE 'PRAIRIE PROVINCE'"
black and white [1:23,000,000]

LEGEND

- | | |
|-------------------------|------------------------|
| 1. The prairie region | 3. The foothill region |
| 2. The sand hill region | |

POUND, ROSCOE and FREDERIC E. CLEMENTS

1898 "The vegetation regions of the prairie province." *Botanical Gazette*, vol. 25, facing p. 394.

1903 "PRESENT DISTRIBUTION OF FOREST, PRAIRIE, AND PLAINS — NORTH AMERICA"
black and white 1:52,000,000

LEGEND

- | | |
|-----------------------|-------------|
| 1. Coniferous forests | 3. Prairies |
| 2. Deciduous forests | 4. Plains |

TRANSEAU, EDGAR NELSON

1903 "On the geographic distribution and ecological relations of the bog plant societies of northern North America." *Botanical Gazette*, vol. 36, no. 6, p. 416.

[1910] "MAP SHOWING THE DISTRIBUTION OF PLANTS AND THE PHYTOGEOGRAPHIC AREAS, DISTRICTS AND REGIONS OF NORTH AMERICA"

in color

1:40,000,000

LEGEND

- A. [Arctic regions of North America]
 - 1. Arctic zone, tundra and associated formations
- B. Forest regions of North America, exclusive of the tropic forests
 - 2. Subarctic zone (Hudsonian), Labrador, Hudson Bay, Mackenzie, Alaska districts; northern coniferous forest
 - 3. St. Lawrence-Great Lakes region, comprising the maritime and lake districts
 - 4. Sitkan region, comprising the northwestern coastal temperate zone
 - 5. Rocky Mountain region, including the Black Hills and mountains of Great Basin
 - 6. Appalachian Mountain district with its deciduous forests
 - 7. Columbian region comprising the Puget Sound-Cascade Range district and Coast Range Olympic district
 - 8. Piedmont phytogeographic district
 - 9. Alleghanian-Ozark district, including Lacustrine area and Kentucky-Tennessee area
 - 10. California Coast Range district, comprising the Mendocino and Santa Lucia areas
 - 11. California Sierra Nevada district
 - 12. San Bernardino district, including the mainland and insular areas
 - 13. Ozark area of the Alleghanian-Ozark district
 - 14. Atlantic-Gulf Coastal region, with the pine barren-strand vegetation
 - 15. Eastern Sierra Madre region of Mexico
 - 16. Western Sierra Madre region of Mexico
 - 17. United Cordilleran region of Mexico
- C. North American prairies, plains and deserts
 - 18. Prairie-Great Plains region
 - 19. Texas cross timber and coast plain belt of heavy live oak with prairies sandwiched between
 - 20. Transition prairie-forest district, comprising the oak openings
 - 21. Edwards Plateau forest, meeting ground for species of Atlantic, Rocky Mountain and Mexican forests
 - 22. San Joaquin district, the Great Valley of California
 - 23. Great Basin region including the Oregon, Nevada and Mohave deserts
 - 24. Sonoran Desert region in Northwest Mexico and southwestern United States
 - 25. Chihuahuan Desert region of Mexico
- D. Subtropic and tropic regions of North America
 - 26. Jaliscan region of western Mexico
 - 27. Floridan-insular phytogeographic areas of the Bahaman region

NORTH AMERICA: GENERAL

- 28. Bermudan region
- 29. Gulf region of the Mexican phytogeographic province
- 30. Central American province; Guatemalan region
- 31. South American province; Costa Rican region
- 32. West Indian province; Antillean region
- 33. Volcanic peaks of Mexico and Central America described in this book

Also indicates range limits of various trees

HARSHBERGER, JOHN W.

1911 "Phytogeographic survey of North America." *In* Engler, A., and Oscar Drude (eds.), *Die Vegetation der Erde*. Leipzig, Wilhelm Engelmann, vol. 13, inserted at back.

[1911] "NORTH AMERICA VEGETATION"

black and white

[1:34,400,000]

LEGEND

- | | |
|------------------------|---------------------|
| 1. Tropical forest | 5. Prairie |
| 2. Temperate forest | 6. Steppe |
| 3. Coniferous forest | 7. Desert |
| 4. Tropical dry forest | 8. Tundra & ice cap |

DRYER, CHARLES REDWAY

1912 "The North America of today and tomorrow and Indiana's place in it." *Proc. Indiana Acad. Sci. for 1911*, facing p. 54.

[1918] "MAP OF EASTERN NORTH AMERICA, TO SHOW POSITION OF CAPE BRETON ISLAND WITH REFERENCE TO THE TRANSITION FOREST REGION"

black and white

[1:40,300,000]

LEGEND

- 1. Evergreen coniferous region
- 2. Transition forest region
- 3. Deciduous forest region

The northern limit of *Acer saccharum* and the southern limit of *Abies balsamea* are also indicated.

NICHOLS, GEORGE E.

1918 "The vegetation of northern Cape Breton Island, Nova Scotia." *Trans. Connecticut Acad. Arts and Sci.*, vol. 22, p. 258.

[1920] "GENERAL VEGETATION AREAS OF NORTH AMERICA [EXCLUSIVE OF MEXICO]"

black and white

[1:61,600,000]

LEGEND

- | | |
|-----------------------|-----------------------|
| 1. Coniferous forests | 4. Bunch grass plains |
| 2. Deciduous forests | 5. Deserts |
| 3. Prairies | |

SHULL, A. FRANKLIN, GEORGE R. LARUE and ALEXANDER G. RUTHVEN

1920 *Principles of animal biology*. New York, McGraw-Hill Book Co., Inc., p. 293.

- [c1920] "MAP OF THE VEGETATION REGIONS OF NORTH AMERICA"
black and white [1:37,000,000]

LEGEND

1. (In far north) treeless region of tundra and snow
2. Northeastern coniferous forest region
3. Western coniferous forest region
4. Eastern deciduous forest region
5. Southeastern or coastal plain forest region
6. Californian evergreen or chaparral region
7. Prairie and Great Plains region
8. (In southwest) Great Basin and desert region
9. Tropical and subtropical forest region

VESTAL, ARTHUR G.

1922 *In* Burlingame, Leonas Lancelot, *et al.*, *General biology*. New York, Henry Holt and Co., facing p. 458. (Reprinted, 1941 [1:65,000,000], *in* Shull, A. Franklin, George R. LaRue, and Alexander G. Ruthven, *Principles of animal biology*. Fifth edition. New York, McGraw-Hill Book Co., Inc., p. 303.)

- [1920] "VEGETATION OF NORTH AMERICA"
in color 1:6,170,000

LEGEND

1. Tundra and barren lands
2. Treeless regions (above tree limit)
3. Northern coniferous forests (spruce forests)
4. Northern coniferous forests with white pine (*Pinus strobus*) prominent
5. Coniferous forests of northern Rocky Mountains
6. Southeastern coniferous forests (*Pinus palustris* and *Pinus taeda* prominent)
7. Coniferous forests of the Sierra Nevada Mountains
8. Coniferous forests and vegetation of southern Rocky Mountains
9. Tropical pine forests in Central America, Cuba, and Island of Haiti
10. Northern deciduous forests
11. Sub-temperate hardwood forests (oaks, pines, etc.) of eastern and western Mexican Cordilleras
12. Alaska-Puget Sound coniferous forests
13. Vegetation and forests of the Pacific Coast Ranges
14. Deciduous swamp forests of the lower Mississippi Basin
15. Dry deciduous forests of Porto Rico
16. Texas coastal plain belt of heavy live oak with prairies and transition prairie forest vegetation
17. Tropical deciduous forests (chaparral)
18. Oak and pine forests of the temperate and moist tropical regions
19. Vegetation of San Joaquin and Sacramento valleys
20. Desert vegetation of Great Basin, including northern Arizona, New Mexico, and Mohave Desert
21. Steppe or plains vegetation
22. Chihuahua deserts
23. Sonoran deserts, including the Colorado Desert and deserts in Haiti and Jamaica
24. Tree savannas of the tropics
25. Prairie vegetation of the Mississippi drainage system [and] in Cuba and Haiti

NORTH AMERICA: GENERAL

26. Edwards Plateau forest—meeting place for plants of Atlantic Coast, Rocky Mountains, and Mexico
27. Marsh lands of Florida Everglades; Zapata and Cienfuegos marshes, Cuba; Klamath marshes, and Sacramento Valley, California
28. Tropical rain forests
29. Mangrove swamps
30. Alpine peaks

Also shows “northern limit of red mangrove (*Rhizophora mangle*) and southern limit of the pines.”

HARSHBERGER, JOHN W.

[1920] [Separately published.] Chicago, Rand McNally and Co.

[1922] “[NORTH AMERICA—] PREVAILING VEGETATION”

in color

[1:130,000,000]

LEGEND

- | | |
|------------------------------------|------------------------------|
| 1. Forests | 4. Poor steppe land |
| 2. Woodland, grass and cultivation | 5. Deserts |
| 3. Steppes & prairies | 6. Tundra and mountain flora |

BARTHOLOMEW, J. G.

1922 *The Times survey atlas of the world*. London, The Times, pl. 80, inset.

[1923] “FORESTS OF MEXICO, CENTRAL AMERICA, PANAMA AND THE WEST INDIES”

in color

[1:23,500,000]

LEGEND

1. Pine forests, characterized by the predominance of pines, often with various hardwoods in mixture. In the mountains of Mexico and Central America, oaks are the principal hardwoods
2. Tropical and subtropical hardwoods, including mangrove belts, as well as the more or less scrubby open forest in dry situations
3. Deciduous hardwoods, chiefly oak

ZON, RAPHAEL and WILLIAM N. SPARHAWK

1923 *Forest resources of the world*. New York, McGraw-Hill Book Co., Inc., vol. 2, facing p. 558.

[1924] “MAP SHOWING THE DISTRIBUTION OF THE FORESTS OF NORTH AMERICA”

black and white

[1:72,800,000]

LEGEND

- | | |
|----------------------------------|--------------------------|
| 1. Northern evergreen forest | 4. Tropical forest |
| 2. Deciduous forest | 5. Rocky Mountain forest |
| 3. Southeastern evergreen forest | 6. Pacific Coast forest |

TRANSEAU, EDGAR NELSON

1924 *Science of plant life, a high school botany treating of the plant and its relation to the environment*. Yonkers-on-Hudson, New York, World Book Co., p. 299. (Reprinted, 1952 [1:65,300,000], in Hill,

Albert F., *Economic botany, a textbook of useful plants and plant products*. Second edition. New York, McGraw-Hill Book Co., Inc., p. 86.)

- [1924] "NATIVE VEGETATION [OF THE UNITED STATES AND SOUTHERN CANADA]"
black and white [1:36,800,000]

LEGEND

- A. Forest vegetation
1. Woodland (juniper-piñon and chaparral)
2. Deciduous forest
3. Mixed forest
4. Coniferous forest
B. Desert vegetation
5. Creosote bush
6. Sage-brush
C. Grass vegetation
7. Mesquite grass (desert grassland)
8. Short grass (plains grassland)
9. Tall grass (prairie grassland)

Vegetation of the United States after Zon and Shantz (1921) and that of Canada after B. S. Fernow (1908)

BAKER, OLIVER E.

1926 "Agricultural regions of North America." *Economic Geography*, vol. 2, p. 469.

- [1925] "VEGETATION [NORTH AMERICA]"
in color [1:77,000,000]

LEGEND

- | | |
|------------------------------------|---------------------------|
| 1. Forest | 4. Scant grass and desert |
| 2. Woodland, grass and cultivation | 5. Desert |
| 3. Prairie and cultivation | 6. Alpine and tundra |

GOODE, J. PAUL, *editor*

1925 *In Goode's school atlas, physical, political and economic for American schools and colleges*. Chicago, Rand McNally and Co., p. 17.

- [1925] "VEGETATION MAP OF CANADA AND THE UNITED STATES"
black and white [1:30,000,000]

LEGEND

- | | |
|---------------------------|----------------------------|
| 1. Northern spruce forest | 5. Western pine forest |
| a. Open | 6. W. cedar-hemlock forest |
| b. Dense | 7. Forest-grass transition |
| 2. N. E. mixed forest | 8. Grassland |
| 3. Deciduous forest | 9. Semi-desert |
| 4. S. E. pine forest | 10. Desert |

McDOUGALL, ERIC

1925 "The moisture belts of North America." *Ecology*, vol. 6, fac-

ing p. 325. (Reprinted, 1927 [1:63,000,000, not 1:16,000,000 as stated,] black and white, in Anon., "Moisture belts of North America [review]." *Geographic Review*, vol. 17, p. 323.)

[1925] "UNITED STATES OF AMERICA AND PART OF CANADA—NATIVE VEGETATION"
in color 1:16,000,000

LEGEND

- I. Forest vegetation (western)
 - A. Woodland
 - 1. Chaparral (southwestern broad-leaved woodland)
 - 2. Piñon-juniper (southwestern coniferous woodland)
 - B. Timberland
 - 3. Western yellow pine-Douglas fir (western pine forest)
 - a. Yellow pine-Douglas fir
 - b. Lodgepole pine
 - c. Yellow pine-sugar pine
 - 4. Cedar-hemlock (northwestern coniferous forest)
 - a. Western larch-western white pine
 - b. Pacific Douglas fir
 - c. Redwood
 - 5. Spruce-fir (northern coniferous forest)
- II. Forest vegetation (eastern)
 - 6. Spruce-fir (northern coniferous forest)
 - 7. White, Norway, jack pine (northeastern pine forest)
 - 8. Birch-beech-maple-hemlock (northeastern hardwoods)
 - 9. Oak (southern hardwood forest)
 - a. Oak-hickory
 - b. Oak-pine
 - 10. Cypress-tupelo-red gum (river bottom forest)
 - 11. Longleaf, loblolly, slash pine (southeastern pine forest)
 - 12. Mangrove (subtropical forest)
- III. Desert Shrub vegetation
 - 13. Sagebrush (northern desert shrub)
 - 14. Creosote bush (southern desert shrub)
 - 15. Greasewood (salt desert shrub)
- IV. Grass vegetation
 - 16. Tall grass (prairie grassland)
 - 17. Bunch grass (Pacific grassland)
 - 18. Short grass (plains grassland)
 - 19. Mesquite grass (desert grassland)
 - 20. Marsh grass (marsh grassland)
 - 21. Northern subarctic type (without fir)
 - 22. Treeless tundra and above timberline

SHANTZ, HOMER L., RAPHAEL ZON (United States) and B. E. FERNOW (Canada)

1925 In Goode, J. Paul, *Goode's school atlas, physical, political and economic for American schools and colleges*. Chicago, Rand McNally & Co., pp. 34-35. (Reprinted, *idem*, editions of 1933, 1943, 1948, pp. 68-69.)

[1926] "BIOTIC AREAS OF NORTHERN NORTH AMERICA"
black and white

[1:59,400,000]

LEGEND

- | | |
|--|---|
| 1. Tundra | 9. Steppe (temperate) |
| 2. N. coniferous forest | 10. Mixed coniferous and deciduous forest |
| 3. N.W. coniferous forest | 11. S.E. coniferous forest |
| 4. Mt. coniferous forest | 12. Temperate deciduous [forest] |
| 5. Winter rain region | 13. Semi desert (thorn savannah) |
| 6. Semi-desert grassland (bush steppe) | 14. Small grass and swamp areas |
| 7. Desert | 15. Mt. coniferous forest, all types |
| 8. Extreme desert | 16. Poplar oak savannah |

SHELFORD, VICTOR E., L. JONES and L. R. DICE

1926 "Descriptive list of North American biota (south to central Mexico)." In Shelford, Victor E. (ed.), *Naturalist's guide to the Americas*. Baltimore, Williams & Wilkins Co., facing p. 60.

[1926] "BIOTIC AREAS OF SOUTHERN NORTH AMERICA, MEXICO AND CENTRAL AMERICA"

black and white

[1:34,800,000]

LEGEND

- | | |
|------------------------------------|---|
| 1. Moist grassland | 14. Extreme desert |
| 2. Moist savanna | 15. Broad-leaved evergreen semi-desert of winter rain regions |
| 3. Temperate deciduous forest | 16. Sub-alpine evergreen forest |
| 4. S. E. coniferous forest | 17. Arid deciduous forest |
| 5. Arid coniferous forest | 18. Deciduous thorn forest |
| 6. Desert coniferous forest | 19. Desert |
| 7. Moist coniferous forest | 20. Tropical rain forest climax |
| 8. Paramos and high mt. forest | 21. Dry grassland |
| 9. Succulent desert | 22. Cypress swamp |
| 10. Small tree semi-desert | 23. Grass swamp |
| 11. Luxuriant tropical rain forest | 24. Flatwoods |
| 12. Drier tropical rain forest | |
| 13. Montane or cloud forest | |

SHELFORD, VICTOR E.

1926 In Shreve, Forrest, and V. E. Shelford, "Descriptive list of Middle American biota (Central Mexico to the Amazon)." In Shelford, Victor E. (ed.), *Naturalist's guide to the Americas*. Baltimore, Williams & Wilkins Co., facing p. 77.

[1927] "[MAP OF THE VEGETATION OF NORTH AMERICA FROM NEAR GREAT BEAR LAKE, NORTHWEST TERRITORIES, TO TEXAS AND THE ATLANTIC COAST]"

black and white

[1:24,700,000]

LEGEND

- | | |
|--|--|
| 1. Northern coniferous forests | 6. Transition zone between deciduous forests and southeastern pine forests |
| 2. Eastern coniferous forests | 7. Long grass region |
| 3. Mixed coniferous and hardwood forests | 8. Short grass region |
| 4. Deciduous forests | 9. [Western coniferous forests] |
| 5. Southeastern pine forests | |

VAN ROYEN, W.

1927 "The climatic regions of North America." *Monthly Weather Review*, vol. 55, p. 316. The legend, on p. 317, lacks key to lettered sections on the map. (Reprinted, 1927 with corrected legend and entitled, "Vegetation regions of eastern North America," in his "Outline of the article on 'The climatic regions of eastern North America.'" *Ibid.*, vol. 55, p. 411.)

[1929] "DIAGRAMMATIC MAP SHOWING THE GENERAL RELATIONS OF THE CLIMAXES"

in color

[1:58,000,000]

LEGEND

- | | |
|---------------------------------|-----------------|
| 1. Tundra | 6. Coast forest |
| 2. Boreal forest | 7. Grassland |
| 3. Lake forest | 8. Sagebrush |
| 4. Deciduous forest | 9. Desert scrub |
| 5. Montane and subalpine forest | 10. Tropical |

WEAVER, JOHN E. and FREDERIC E. CLEMENTS

1929 *Plant ecology*. New York, McGraw-Hill Book Co., Inc., frontispiece. (Reprinted with modifications, 1932 black and white, same scale, in Shelford, Victor E., "Life zones, modern ecology, and the failure of temperature summing." *Wilson Bulletin*, vol. 44, p. 154; 1938 same scale, in their *Plant ecology*. Second edition. New York, McGraw-Hill Book Co., Inc., frontispiece.)

1930 "FOREST REGIONS OF NORTH AMERICA"

black and white

1:37,500,000

LEGEND

Northern and western regions

1. Northern spruce—fir forests
2. Western lodgepole pine and Engelmann spruce forests
3. Douglas fir, Sitka spruce and cedar forests
4. Western yellow pine forests
5. Sugar pine and yellow pine forests
6. Lodgepole pine forests
7. Spruce—fir mountain forests
8. Arctic forests in interior Alaska (spruce—birch)
9. Redwood forests

Eastern regions

1. Northeastern hardwood and coniferous forests
2. Northeastern red and white pine forests
3. Birch—beech—maple—hemlock forests
4. Chestnut—oak—yellow poplar forests
5. Oak—white pine forests
6. Southern yellow pine forests
7. Cypress—tupelo—red gum forests
8. Oak—hickory forests

ILVESSALO, LAURI and MATTI JALAVA

1930 "Forest resources of the world." *Comm. Inst. Quaest. Forest. Finl.* vol. 16, facing p. 80.

1930 "FORESTS OF THE WEST INDIES, CENTRAL AMERICA AND MEXICO"

black and white

1:28,570,000

LEGEND

1. Conifers, chiefly pine
2. Deciduous hardwoods, chiefly oak
3. Tropical and subtropical hardwoods

ILVESSALO, LAURI and MATTI JALAVA

1930 "Forest resources of the world." *Comm. Inst. Quaest. Forest. Finl.* vol. 16, facing p. 64.

- [1931] "NORTH AMERICA, VEGETATION"
in color 1:33,500,000

LEGEND

- | | |
|------------------------------------|------------------------------|
| 1. Forest | 4. Poor steppe land |
| 2. Woodland, grass and cultivation | 5. Deserts |
| 3. Steppes and prairies | 6. Tundra and mountain flora |

BARTHOLOMEW, JOHN

1931 *The Oxford advanced atlas*. Fourth edition, revised. London, Oxford University Press, p. 80.

- [1931] "DIAGRAM OF THE DECIDUOUS FOREST BIOME AND ADJACENT COMMUNITIES
[IN EASTERN NORTH AMERICA]"
black and white [1:31,700,000]

LEGEND

- | | |
|--------------------------|-----------------------------------|
| 1. Flood plain subclimax | 4. Pine-subclimax |
| 2. Subclimax grassland | 5. Oak and pine-subclimax |
| 3. Probable climax areas | 6. Moist coniferous forest climax |
| a. Oak-hickory | 7. Climax grassland |
| b. Oak-chestnut | 8. Magnolia-bay-holly climax |
| c. Beech-maple | |

SHELFORD, VICTOR E.

1931 "Some concepts of bioecology." *Ecology*, vol. 12, p. 459.

- [1932] "NATURAL VEGETATION REGIONS (GENERALIZED) [IN THE GREAT PLAINS
AND ADJACENT REGIONS IN THE VICINITY OF THE FORTY-NINTH PARALLEL]"
black and white [1:15,200,000]

LEGEND

- | | |
|--------------------|---------------------------|
| 1. Forest & alpine | 3. Shortgrass & sagebrush |
| 2. Prairie & grove | |

JONES, STEPHEN B.

1932 "The forty-ninth parallel in the Great Plains: the historical geography of a boundary." *Journal of Geography*, vol. 31, p. 359.

- [1933] "VEGETATION [NORTH AMERICA]"
in color [1:39,000,000]

LEGEND

- | | |
|-------------------------------|--|
| 1. Tropical rain forest | 4. Scrub woodland: thorn scrub,
mulga, mallee |
| 2. Temperate deciduous forest | 5. Thorn scrub: mesquite, acacia,
chaparral |
| 3. Narrow sclerophyll forest | |

- | | |
|--|--|
| 6. Sagebrush scrub | 9. Temperate and low latitude desert |
| 7. Prairie, steppe: long, short, and bunch grass | 10. High latitude desert: tundra, alpine |
| 8. Savanna (mostly tropical) | 11. Snow and ice |

GOODE, J. PAUL (*ed.*)

1933 *Goode's school atlas, physical, political and economic for American schools and colleges.* Chicago, Rand McNally & Co., p. 51. (Reprinted *Ibid.*, 1943, 1948.)

[1934] "DIAGRAM OF MAJOR ECOLOGICAL COMMUNITIES IN EASTERN NORTH AMERICA"

black and white

[1:27,300,000]

LEGEND

1. Boreal forest, *Picea-Larix* association
2. Lake forest, *Pinus-Tsuga* association
3. Maple-beech forest, *Acer-Fagus* association
4. Oak-chestnut forest, *Quercus-Castanea* assoc.
5. Oak-hickory forest, *Quercus-Hicoria* assoc.
6. Magnolia-bay forest, *Magnolia-Tamala* faciation
7. Southern pine forest, *Pinus-Pinus* associes
8. Prairie, *Stipa-Bouteloua* formation
9. Sub-tropical forest

KENDEIGH, S. CHARLES

1934 "The rôle of environment in the life of birds." *Ecological Monographs*, vol. 4, p. 304.

[1935] "THE LOCATION OF THE THREE ASSOCIATIONS IN THE TRANSCONTINENTAL CONIFEROUS FOREST"

black and white

[1:85,000,000]

LEGEND

- | | |
|----------------------|-----------------|
| 1. Spruce-pine | 3. Pine-hemlock |
| 2. Spruce-balsam fir | |

SHELFORD, VICTOR E. and SIGURD OLSON

1935 "Sere, climax and influent animals with special reference to the transcontinental coniferous forest of North America." *Ecology*, vol. 16, p. 377.

[1935] "MAP SHOWING APPROXIMATE LIMITS OF EASTERN HEMLOCK REGION"

black and white

[1:37,500,000]

LEGEND

- | | |
|----------------------------|--|
| 1. [Tundra] | 3. Hemlock-white pine-northern hardwood forest |
| 2. Northern conifer forest | 4. Deciduous forest |

NICHOLS, G. E.

1935 "The hemlock-white pine-northern hardwood region of eastern North America." *Ecology*, vol. 16, p. 405.

- [1936] "[MAIN TYPES OF PLANT COMMUNITIES IN NORTH AMERICA]"
black and white [1:54,300,000]

LEGEND

- | | |
|-------------------------------|-----------------------------|
| 1. Grasslands | 4. Deserts and semi-deserts |
| 2. Mixed grasslands and woods | 5. Tundra |
| 3. Various types of forest | |

Generalized from Harshberger [1910]

NEWBIGIN, FLORENCE M.

1936 In Newbigin, Marion I., *Plant and animal geography*. London, Methuen and Co. Ltd., p. 166.

- [1936] "THE DESERT AREAS OF NORTH AMERICA"
black and white [1:22,000,000]

LEGEND

- | | |
|-----------------------|----------------------|
| 1. Great Basin desert | 3. Sonoran desert |
| 2. Mojave desert | 4. Chihuahuan desert |

SHREVE, FORREST

1936 "The plant life of the Sonoran desert." *Scientific Monthly*, vol. 42, p. 197.

- 1937 "[BIOMES OF NORTH AMERICA]"
black and white [1:66,500,000]

LEGEND

1. *Cladonia*-caribou biome (tundra)
2. Spruce-moose biome (coniferous forest)
3. Cedar-sitka deer biome (moist con. forest)
4. *Adenostoma*-brush rabbit biome (chaparral)
5. Shadscale-kangaroo rat biome (cool-desert)
6. Creosote bush-desert fox biome (hot desert)
7. Juniper-rock squirrel biome (pinyon juniper woodland)
8. Grama grass-antelope biome (grassland)
9. Oak-wild turkey biome (deciduous forest)
10. Palm forest
11. Scrub and palmetto forest
12. Tropical savanna (areas of tropical deciduous forest)

SHELFORD, VICTOR E.

1945 "The relative merits of the life zone and biome concepts." *Wilson Bulletin*, vol. 57, p. 249. (Reprinted, 1957 [1:54,000,000], in Hayward, C. Lynn, "Biome." In Gray, Peter (ed.), *The encyclopedia of the biological sciences*. New York, Reinhold Publishing Corp., p. 152.)

- 1939 "MAP OF THE GRASSLAND CLIMAX AND ITS ASSOCIATIONS"
black and white 1:33,000,000

LEGEND

- | | |
|-----------------|--------------------|
| 1. True prairie | 2. Coastal Prairie |
|-----------------|--------------------|

NORTH AMERICA: GENERAL

- | | |
|----------------------------------|-------------------------------------|
| 3. Mixed Prairie | 8. Aspen Parkland (savannah) |
| 4. Desert Prairie | 9. Contact with other biomes |
| 5. California Prairie | 10. Separate different associations |
| 6. Palouse Prairie | 11. Mountain masses |
| 7. Incompletely known grasslands | 12. Non-grasslands |

CLEMENTS, FREDERIC E. and VICTOR E. SHELFORD

1939 *Bio-Ecology*. New York, John Wiley and Sons, Inc., p. 255.

1940 "THE GRASSLAND BIOME (OF NORTH AMERICA)"

black and white

1:25,000,000

LEGEND

- | | |
|----------------|---------------------------|
| 1. Short grass | 3. Tall grass |
| 2. Mixed grass | 4. Prairie-forest ecotone |

CARPENTER, J. RICHARD

1940 "The grassland biome." *Ecological Monographs*, vol. 10, p. 665.

[1939] "UNITED STATES OF AMERICA AND PART OF CANADA—NATIVE VEGETATION"

in color

1:16,000,000

LEGEND

- I. Forest vegetation (western)
 - A. Woodland
 - 1. Chaparral (southwestern broad-leaved woodland)
 - 2. Piñon-juniper (southwestern coniferous woodland)
 - B. Timberland
 - 3. Western yellow pine-Douglas fir (western pine forest)
 - a. Yellow pine-sugar pine
 - b. Lodgepole pine
 - c. Yellow pine-Douglas fir
 - 4. Cedar-hemlock (northwestern coniferous forest)
 - a. Western larch-western white pine
 - b. Pacific Douglas fir
 - c. Redwood
 - 5. Spruce-fir (northern coniferous forest)
- II. Forest vegetation (eastern)
 - 6. Spruce fir (northern coniferous forest)
 - 7. White, Norway, jack pine (northeastern pine forest)
 - 8. Birch-beech-maple-hemlock (northeastern hardwoods)
 - 9. Oak (southern hardwood forest)
 - a. Chestnut-chestnut oak-yellow poplar
 - b. Oak-hickory
 - c. Oak-pine
 - 10. Cypress-tupelo-red gum (river bottom forest)
 - 11. Longleaf, loblolly, slash pine (southeastern pine forest)
 - 12. Mangrove (subtropical forest)
- III. Desert shrub vegetation
 - 13. Sagebrush (northern desert shrub)
 - 14. Creosote bush (southern desert shrub)
 - 15. Greasewood (salt desert shrub)
- IV. Grass vegetation
 - 16. Tall grass (prairie grassland)

17. Bunch grass (Pacific grassland)
18. Short grass (plains grassland)
19. Mesquite grass (desert grassland)
20. Marsh grass (marsh grassland)

V. [Other]

21. Northern subarctic type (without fir)
22. Treeless tundra and above timberline

Vegetation of the United States after Shantz and Zon (1924) and that of Canada after Fernow (1908)

GOODE, J. PAUL

1939 *Goode's school atlas*. Revised, enlarged. New York, Rand McNally and Co., pp. 68-69.

[1940] "PRINCIPAL VEGETATION TYPES OF NORTH AMERICA"

black and white

[1:57,600,000]

LEGEND

- | | |
|---------------------------|-----------------------------|
| 1. Tundra | 7. Desert grass and scrub |
| 2. Boreal forest | 8. Desert |
| 3. Hemlock-hardwood f. | 9. Coastal forest |
| 4. Deciduous forest | 10. Rocky Mt. forest |
| 5. S. E. evergreen forest | 11. Wet and dry tropical f. |
| 6. Grasslands | |

TRANSEAU, EDGAR NELSON, H. C. SAMPSON and L. H. TIFFANY

1940 *Textbook of botany*. New York, Harper and Brothers, p. 741. (Reprinted, 1948 in Oosting, Henry J., *The study of plant communities, an introduction to plant ecology*. San Francisco, W. H. Freeman and Co., p. 235, and 1959 in McCormick, Jack, *The living forest*. New York, Harper and Brothers, p. [89].)

[1940] "[FOREST] ASSOCIATIONS [OF THE NORTHEASTERN UNITED STATES AND SOUTHEASTERN CANADA]"

black and white

[1:5,600,000]

LEGEND

- | | |
|------------------|---------------------|
| 1. Beech-maple | 3. Northern conifer |
| 2. Beech-hemlock | |

JONES, G. T.

1944 In Krauss, Robert W., and George N. Kent, "Analyses and correlation of four New Hampshire bogs." *Ohio Journal of Science*, vol. 44, p. 15.

[1941] "GRAZING LANDS, WESTERN NORTH AMERICA"

black and white

[1:23,600,000]

LEGEND

- | | |
|------------------------------------|--------------------------|
| 1. Tall grass-prairie grassland | 4. Desert bush and brush |
| 2. Short grass-plains grassland | 5. Natural forest areas |
| 3. Mesquite grass-desert grassland | |

Also indicates, "Limits of buffalo range—1800," and "Limits of Plains Indians—1800"

NORTH AMERICA: GENERAL

JONES, CLARENCE FIELDEN and GORDON GERALD DARKENWALD

1941 *Economic geography*. New York, Macmillan Co., p. 120. (Reprinted, 1954 [1:47,600,000], in *their Economic geography*. Revised edition. New York, Macmillan Co., p. 112.)

[1942] "THE NORTH AMERICAN DESERT AND ITS SUBDIVISIONS"

black and white

[1:20,000,000]

LEGEND

1. Great Basin desert
2. Mojave desert

3. Sonoran desert
4. Chihuahuan desert

SHREVE, FORREST

1942 "The desert vegetation of North America." *Botanical Review*, vol. 7, p. 212.

[1942] "[GENERAL FOREST TYPES OF SOUTHERN ONTARIO, NORTHERN MINNESOTA, NORTHERN WISCONSIN, AND NORTHWESTERN MICHIGAN]"

black and white

[1:6,900,000]

LEGEND

1. Northern conifer forest

2. White pine-hemlock forest

WILSON, L. R. and R. M. WEBSTER

1943 "Microfossil studies of four southwestern Ontario bogs." *Proc. Iowa Acad. Sci.*, vol. 50, p. 261.

[1943] "VEGETATION REGIONS OF ANGLO-AMERICA"

black and white

[1:56,300,000]

LEGEND

1. Tundra
2. Northern conifers
3. Northern hardwoods
4. Southern hardwoods
5. Southern pineries

6. Mangrove
7. Grasslands-deserts
8. Spruce-ponderosa
9. Redwood-fir-spruce

WHITE, C. LANGDON and EDWIN J. FOSCUE

1943 *Regional geography of Anglo-America*. New York, Prentice-Hall, Inc., p. 13.

[1943] "FOREST SECTIONS IN THE REGION OF THE ALASKA HIGHWAY BETWEEN DAWSON CREEK AND WHITEHORSE [INCLUDING PORTIONS OF SOUTHERN ALASKA, NORTHERN BRITISH COLUMBIA, SOUTHERN YUKON, SOUTHWESTERN NORTHWEST TERRITORIES, AND WESTERN ALBERTA]"

black and white

[1:6,550,000]

LEGEND

1. Mixedwood
2. Northern coast
3. Foothills
4. Stikine Plateau

5. Upper Liard
6. Interior subalpine
7. Kluane Lake
8. Aspen grove

- 9. Teslin
- 10. Alpine tundra

- 11. Mackenzie lowlands

RAUP, HUGH M.

1944 "Forests and gardens along the Alaska Highway." *Geographical Review*, vol. 34, p. 24. (Reprinted, 1950 green, black, and white, 1:4,200,000, in Raup, Hugh M., and Charles S. Denny, *Photo interpretation of the terrain along the southern part of the Alaska Highway*. U. S. Geol. Surv., Bull. no. 963-D, pl. 9 (in pocket).

- [1944] "TUNDRA AND BOREAL FOREST SURROUNDING THE POLAR ICECAP AND THE LAND ICE OF GREENLAND"

black and white

[1:46,000,000]

LEGEND

- 1. Tundra
- 2. Boreal forest
- 3. Other vegetation types

TRANSEAU, EDGAR NELSON

1944 "The pattern of vegetation." In Renner, George T., and Associates, *Global geography*. New York, Thomas Y. Crowell Co., p. 122.

- [1948] "VEGETATION REGIONS OF THE UNITED STATES AND CANADA"

black and white

[1:61,900,000]

LEGEND

- 1. Coniferous forest
- 2. Broadleaf and mixed broadleaf-coniferous forest
- 3. Prairie
- 4. Steppe
- 5. Desert shrub
- 6. Mediterranean scrub forest
- 7. Tundra

WRIGHT, ALFRED J.

1948 *United States and Canada, an economic geography*. New York, Appleton-Century-Crofts, Inc., p. 19.

- [1948] "NATURAL VEGETATION [NORTH AMERICA] AFTER HARSHBERGER, SHANTZ, ZON, FERNOW, AND OTHERS"

in color

1:32,000,000

LEGEND

- I. Forest vegetation
 - A. Northern coniferous forest
 - 1. Sub-arctic and northern forest (pine, spruce, fir, tamarack, balsam, poplar, larch; willow and birch undergrowth)
 - 2. North-east coniferous forest (white, jack and red pines, spruce, balsam, poplar, tamarack, birch)
 - B. Central and eastern hardwoods
 - 3. Central (oak, hickory)
 - 4. Alleghanian (oak, chestnut, yellow poplar)
 - 5. Piedmont (oak, pine)
 - 6. North-eastern (beech, birch, maple, hemlock)
 - C. Appalachian Mountain forest
 - 7. Broad-leaved forest (beech, chestnut, maple, oak)

NORTH AMERICA: GENERAL

8. Coniferous forest (hemlock, pine, fir, spruce)
9. Atlantic pine barrens
10. South-eastern pine forest (longleaf and loblolly pines)
11. South-eastern swamp forest (cypress, magnolia, white cedar)
- D. Pacific coniferous forest
 12. Northern zone (spruce, hemlock)
 13. Central zone (Douglas fir, hemlock)
 14. Southern zone (sequoia [redwood], cypress, Douglas fir, oak)
- E. Cordilleran and Rocky Mountain coniferous forest
 15. Yellow pine and Douglas fir
 16. Lodgepole, yellow and sugar pine forest
 17. Piñon-juniper coniferous woodland
 18. Californian chaparral (broad-leaved woodland)
 19. Mexican and Central American pine and oak forest
 20. Sub-tropical and tropical forest (palms, bamboo, tree-ferns, lianas, orchids, etc.)
 21. Sub-tropical and tropical chaparral
- II. Grass vegetation
 22. Temperate grasslands
 23. Sub-tropical and tropical grasslands and savanna
 24. Semi-desert mesquite grasslands
 25. Semi-desert mesquite savanna
 26. Swamp and marsh vegetation
- III. Steppe, scrub and desert vegetation
 27. Sage brush
 28. Creosote shrub (yucca)
 29. Mexican plateau shrub (yucca, agave, cactus)
 30. Salt desert shrub (greasewood)
 31. Ice desert, tundra (moss, lichen, heather bogs, dwarf willow, birch and alder, etc.). Alpine (above timber line)

Also shows limits of Douglas fir, white pine, sugar maple, yucca, and coastal mangrove swamps

GOODALL, GEORGE and H. C. DARBY (*eds.*)

1948 *The university atlas*. London, George Philip & Son, Ltd., p. 92.

[1949] "NATURAL VEGETATION OF NORTH AMERICA"

black and white

[1:72,600,000]

LEGEND

- A. Desert
 1. Xerophytic shrub and barren desert
- B. Tropical forest
 2. Selva
 3. Semideciduous forest
 4. Scrub forest
- C. Mediterranean scrub forest
 5. Broadleaf, evergreen, sclerophyll, scrub forest, and maquis
- D. Mid-latitude mixed forest
 6. Broadleaf and broadleaf-conifer forests
 7. Coniferous enclaves
- E. Grassland
 8. Savanna
 9. Prairie
 10. Steppe

- F. Boreal forest
 - 11. Taiga
- G. Polar
 - 12. Tundra and ice desert
 - 13. Permanent ice
- H. Mountains
 - 14. Undifferentiated

JAMES, PRESTON E. and HIBBERD V. B. KLINE, JR.

1949 *A geography of man*. Boston, Ginn and Co., p. 595.

- [1949] "CLIMAX WILDERNESS PLANT PATTERNS OF NORTH AMERICA . . ."
 black and white [1:67,300,000]

LEGEND

- | | |
|-------------------------|--------------------------------|
| 1. Ice cap | 7. Lake States forest |
| 2. Tundra | 8. Sagebrush |
| 3. Mountain forest | 9. Deciduous forest |
| 4. Boreal forest | 10. Atlantic-Gulf Coast forest |
| 5. Pacific Coast forest | 11. Desert |
| 6. Grasslands | |

"Mainly after Weaver-Clements"

GRANGE, WALLACE BYRON

1949 *The way to game abundance, with an explanation of game cycles*. New York, Charles Scribner's Sons, frontispiece.

- [1949] "VEGETATION [NORTH AMERICA]"
 in color 1:34,000,000

LEGEND

- | | |
|--|--|
| 1. Northern treeless zone (tundra) | 11. "Prairie" wheat lands (long grass) |
| 2. Mountain top flora | 12. Californian Valley agriculture |
| 3. Northern and mountain conif. forest | 13. Savannah (largely cultivated) |
| 4. South-eastern conif. forest | 14. "Plains" wheat lands (short grass) |
| 5. North-eastern conif. forest | 15. Sage brush |
| 6. British Columbian (dry) coniferous | 16. River bottom vegetation |
| 7. Cent. American pine-cedar forest | 17. Creosote bush |
| 8. Northern and central deciduous mixed forest | 18. Chaparral |
| 9. Appalachian Piedmont forest | 19. Semi-desert |
| 10. Tropical rain forest | 20. Waterless desert |
| | 21. Fresh water swamp |

Also indicates the northern limit of sub-tropical fruits, limit of cotton, and northern limit of maize

BARTHOLOMEW, JOHN

1950 *The advanced atlas of modern geography*. New series, first edition. New York, McGraw-Hill Book Co., Inc., p. 86.

- [1950] "PRINCIPAL REGIONS OF NATURAL VEGETATION IN NORTH AMERICA"
 black and white [1:67,000,000]

LEGEND

- | | |
|---------------------------------|---------------------------------|
| 1. Ice cap | 7. Grassland |
| 2. Tundra region | 8. Northern coniferous district |
| 3. Boreal forest region | 9. Central hardwoods district |
| 4. Pacific forest region | 10. Southern pines district |
| 5. Rocky Mountain forest region | 11. Tropical region |
| 6. Grass and desert region | |

POOL, R. J.

1950 *In* Macbride, J. Francis, *Natural landscapes of the United States*. Chicago Natural History Museum, Popular Series, Bot., no. 27, p. 6.

- [1950] "THE GRASSLAND OF ANGLO-AMERICA EAST OF THE ROCKY MOUNTAINS"
black and white [1:31,700,000]

LEGEND

- | | |
|-----------|------------|
| 1. Steppe | 2. Prairie |
|-----------|------------|

BORCHERT, JOHN R.

1950 "The climate of the central North American grassland." *Annals of the Association of American Geographers*, vol. 40, p. 2.

- [1950] "MAP OF FOREST REGIONS AND SECTIONS [OF THE EASTERN UNITED STATES AND SOUTHEASTERN CANADA]"
black and white [1:5,500,000]

LEGEND

- A. Deciduous forest formation
1. Mixed mesophytic forest region
 - a. Cumberland Mountains
 - b. Allegheny Mountains
 - c. Cumberland and Allegheny Plateaus
 2. Western mesophytic forest region
 - a. Bluegrass section
 - b. Nashville Basin
 - c. Area of Illinoian glaciation
 - d. Hill section
 - e. Mississippian Plateau section
 - f. Mississippi Embayment section
 3. Oak-hickory forest region
 - a. Southern division
 - i. Interior Highlands
 - ii. Forest-prairie transition area
 - b. Northern division
 - i. Mississippi Valley section
 - ii. Prairie Peninsula section
 4. Oak-chestnut forest region
 - a. Southern Appalachians
 - b. Northern Blue Ridge
 - c. Ridge and Valley section
 - d. Piedmont section
 - e. Glaciated section

- 5. Oak-pine forest region
 - a. Atlantic slope section
 - b. Gulf slope section
- 6. Southeastern evergreen forest region
 - a. Mississippi alluvial plain
- 7. Beech-maple forest region
- 8. Maple-basswood forest region
 - a. Driftless section
 - b. Big Woods section
- 9. Hemlock-white pine-northern hardwoods region
 - a. Great Lakes-St. Lawrence division
 - i. Great Lake section
 - ii. Superior upland
 - iii. Minnesota section
 - iv. Laurentian section
 - b. Northern Appalachian highland division
 - i. Allegheny section
 - ii. Adirondack section
 - iii. New England section
- B. Boreal or spruce-fir forest formation
 - 10. [Spruce-fir forest region]
- C. Grassland or prairie formation
 - 11. Prairie
 - 12. Swamp

BRAUN, E. LUCY

1950 *Deciduous forests of eastern North America*. Philadelphia, Blakiston Co., inserted at back.

1952 "VEGETATION OF NORTH AMERICA"

black and white

1:65,000,000

LEGEND

- | | |
|-----------------------------|--------------------|
| 1. Tundra | 8. Mountain forest |
| 2. Coniferous forest | 9. Savanna |
| 3. Pacific temperate forest | 10. Steppe |
| 4. Mediterranean forest | 11. Park steppe |
| 5. Mixed temperate forest | 12. Scrub |
| 6. Warm forest | 13. Desert |
| 7. Hot wet forest | |

HARDY, M. E.

1952 *The geography of plants*. Oxford, The Clarendon Press. p. 80.

[1953] "THE PRAIRIE-FOREST BORDER TENSION ZONE OF EASTERN NORTH AMERICA"

black and white

[1:22,000,000]

LEGEND

- | | |
|-------------------------------|---|
| 1. Prairie-forest border | 3. [Prairie] |
| 2. Savanna type of vegetation | 4. [White pine-northern hardwood forest type] |

LINDSAY, DOUGLAS R.

1953 "Climate as a factor influencing the mass ranges of weeds." *Ecology*, vol. 34, p. 309.

[1953] "FORESTS OF WESTERN CANADA AND ALASKA"

in color

[1:20,000,000]

LEGEND

1. Western larch, western white pine, western red cedar
2. Arctic forest spruce, fir, tamarack, balsam, poplar
3. Spruce and lodgepole pine
4. Yellow pine, Rocky Mountain Douglas fir
5. Pacific Coast Douglas fir, cedar, Sitka spruce, western hemlock
6. Prairie groves (aspen-cottonwood)
7. Treeless: prairie, tundra, alpine

PEATTIE, DONALD CULROSS

1953 *A natural history of western trees.* Boston, Houghton Mifflin Co., on endpapers.

1953 "NATURAL VEGETATION OF THE UNITED STATES AND SOUTHERN CANADA"

in color

1:14,000,000

LEGEND

- A. Broadleaf evergreen trees
 1. Mangrove
- B. Broadleaf evergreen, shrubform
 2. Ceanothus-manzanita-chamise
- C. Broadleaf evergreen, dwarf shrubform
 3. Greasewood
 4. Sagebrush
 5. Sage-sagebrush
 6. Creosote bush
- D. Broadleaf evergreen, shrubform and dwarf shrubform
 7. Lechuguilla-sotol
- E. Broadleaf evergreen, dwarf shrubform, in patches
 8. Shadscale
- F. Broadleaf evergreen, dwarf shrubform, grass, medium height
 9. Sandsage-sandgrass
- G. Broadleaf deciduous trees
 10. Aspen-oak
 11. Beech-maple
 12. Beech-tulip tree-maple-basswood
 13. Cottonwood-willow
 14. Maple-basswood
 15. Oak
 16. Oak-ash-maple
 17. Oak-hickory
 18. Oak-tulip tree
- H. Broadleaf deciduous trees, broadleaf evergreen trees
 19. Oak-madrone
- I. Broadleaf deciduous trees, needleleaf evergreen trees
 20. Maple-yellow birch-hemlock-pine
 21. Oak-Douglas fir
 22. Oak-pine
 23. Maple-beech-hemlock
- J. Broadleaf deciduous trees, grass, medium height, in patches
 24. Aspen-needle grass-wheat grass
 25. Oak-hickory-bluestem

- K. Broadleaf deciduous trees, needleleaf deciduous trees
 - 26. Bay trees-bald cypress
 - 27. Tupelo-gum-bald cypress
- L. Needleleaf evergreen trees
 - 28. Douglas fir
 - 29. Douglas fir-redwood
 - 30. Hemlock-arbor vitae
 - 31. Hemlock-arbor vitae-Douglas fir
 - 32. Hemlock-arbor vitae-fir
 - 33. Hemlock-spruce
 - 34. Pine
 - 35. Pine-juniper
 - 36. Pine-spruce
 - 37. Spruce-fir
- M. Needleleaf evergreen, shrubform, in patches
 - 38. Juniper
- N. Needleleaf evergreen trees, broadleaf deciduous trees, in patches
 - 39. Douglas fir-pine-aspen
 - 40. Pine-spruce-birch
 - 41. Spruce-aspen
 - 42. Spruce-fir-aspen
 - 43. Spruce-poplar-birch
- O. Needleleaf evergreen trees, needleleaf deciduous trees
 - 44. Hemlock-arbor vitae-Douglas fir-larch
 - 45. Pine-bald cypress
 - 46. Pine-spruce-larch
 - 47. Spruce-larch
- P. Grass, low
 - 48. Grama grass
 - 49. Grama grass-buffalo grass
 - 50. Grama grass-needle grass
 - 51. Needle grass-blue grass
 - 52. Wheat grass
 - 53. Wheat grass-blue grass
- Q. Grass, medium height
 - 54. Bluestem
 - 55. Broom grass-water grass
 - 56. Marsh grass
 - 57. Saw grass
- R. Grass, medium and low height
 - 58. Bluestem-bunch grass
 - 59. Needle grass-wheat grass
- S. Grass, low, broadleaf deciduous, shrubform, in patches
 - 60. Bunch grass-oak
- T. Grass, medium height, broadleaf deciduous, shrubform, in patches
 - 61. Mesquite grass-mesquite
- U. Herbaceous plants other than grass
 - 62. Lichens, etc.
- V. Herbaceous plants other than grass, needleleaf evergreen trees, in patches
 - 63. Lichens-spruce
- W. Herbaceous plants other than grass, needleleaf evergreen trees, in patches, needleleaf deciduous trees, in patches
 - 64. Lichens-spruce-larch
- X. Needleleaf deciduous trees
 - 65. Bald cypress

NORTH AMERICA: GENERAL

Y. Woody plants without leaves, in patches

66. Palo verde-cacti-ocotillo

Z. Vegetation largely or entirely absent

KÜCHLER, A. W.

1953 *In* Goode, J. Paul, *Goode's world atlas*. Ninth edition. Ed. by Edward B. Espenshade, Jr. New York, Rand McNally & Co., pp. 52-53. (Reprinted, 1957 *Ibid.*, tenth, 1960 eleventh and 1964 twelfth edition.)

1953 "THE PINE-OAK WOODLAND IN SOUTHERN ARIZONA AND ADJACENT MEXICO"

black and white

1:2,725,000

LEGEND

1. Desert

2. Grassland

3. Encinal

4. Pine-oak woodland

5. Coniferous forest

MARSHALL, JOE T., JR.

1957 "Birds of pine-oak woodland in southern Arizona and adjacent Mexico." *Pacific Coast Avifauna*, vol. 32, p. 34.

[1954] "NORTH AMERICA VEGETATION"

in color

1:63,360,000

LEGEND

1. Ice cap

2. Tundra and alpine

3. Tropical rain forest

4. Coniferous forest

5. Temperate forest

6. Temperate grasslands

7. Steppe

8. Thorn scrub (mesquite)

9. Desert

10. Mediterranean

11. Unclassified highlands

ANON.

1954 *In* *Hammond's ambassador world atlas*. Maplewood, New Jersey, C. S. Hammond and Co., p. 90.

[1954] "BIOCIATIONS"

black and white

[1:56,300,000]

LEGEND

1. Tundra

2. Alpine meadow

3. Boreal forest-edge

4. Boreal forest

5. Western forest

6. Woodland

7. Chaparral

8. Basin sagebrush

9. Desert scrub

10. Prairie

11. Deciduous forest

12. Deciduous forest-edge

13. Southern pine

KENDEIGH, S. CHARLES

1954 "History and evaluation of various concepts of plant and animal communities in North America." *Ecology*, vol. 35, p. 167.

- [1955] "VEGETATION REGIONS OF THE UPPER MIDWEST [OF THE UNITED STATES AND SOUTH-CENTRAL CANADA]"
 black and white [1:10,400,000]

LEGEND

- A. Grassland
 - 1. Tall grass prairie
- B. Deciduous forest
 - 2. Sugar maple, basswood, elm, oak
 - 3. Oak, aspen groves
- C. Northern coniferous forest
 - 4. Pine, spruce, fir, tamarack

ROSENDAHL, CARL OTTO

1955 *Trees and shrubs of the Upper Midwest*. Minneapolis, University of Minnesota Press, p. 13.

- [1956] "VEGETATION REGIONS, UNITED STATES AND CANADA"
 black and white [1:50,700,000]

LEGEND

- | | |
|--|---|
| 1. Grass | 6. Short-grass |
| 2. Needleleaf evergreen trees | 7. Broadleaf evergreen and broad-
leaf deciduous dwarf shrubform |
| 3. Mixed broadleaf deciduous and
needleleaf evergreen trees | 8. Broadleaf evergreen shrubform |
| 4. Broadleaf deciduous trees | 9. Tundra |
| 5. Prairie | |

After Kuchler

WRIGHT, ALFRED J.

1956 *United States and Canada, a regional geography*. Second edition. New York, Appleton-Century-Crofts, Inc., p. 14.

- 1956 "VEGETATION OF ALASKA AND ADJACENT CANADA"
 in color 1:6,250,000

LEGEND

- 1. Vegetation absent, bare rock, or perennial snow and ice
- 2. Tundra; predominantly sedge sod, tussock, and small shrub types, mostly in lowland habitats
- 3. Tundra; predominantly shrub—moss and rock desert types, mostly in mountain habitats
- 4. Boreal forest, predominantly white spruce (evergreen) and white birch (deciduous) types or mixtures with black spruce, aspen, balsam poplar, or larch (including lodgepole pine and Engelmann spruce in southeasternmost part of unit) and with inclusions of shrub, meadow, bog and marsh types
- 5. Pacific coast forest, predominantly Sitka spruce and hemlock (evergreen) types, with pine, fir, and Alaska white cedar in southeastern part and local inclusions of shrub and bog types

BENNINGHOFF, WILLIAM S.

1957 *Terrain Study of the Army Test Area, Fort Greely, Alaska*, chapter 9: Vegetation. Washington. Waterways Experiment Station, Corps of Engineers, U. S. Army. In pocket at end.

NORTH AMERICA: GENERAL

- [1957] "NORTHERN FLORAS [OF NORTHERN NORTH AMERICA AND ADJACENT AREAS]"
black and white [1:66,700,000]

LEGEND

- | | |
|------------------|-----------------------------------|
| A. Boreal | B. Northern forest |
| 1. Arctic tundra | 3. American northern forest |
| 2. Alpine tundra | 4. Transition to grasslands |
| | 5. Transition to deciduous forest |

BENSON, LYMAN

1957 *Plant classification*. Boston, D. C. Heath and Co., p. 581.

- [1957] "DISTRIBUTION OF THE DECIDUOUS FOREST FORMATION (FROM BRAUN, 1950) IN EASTERN NORTH AMERICA AND VARIOUS TEMPERATE FORESTS (CLOUD FOREST, ELFIN WOODLAND, OAK-PINE FOREST AND FIR FOREST) IN THE HIGHLANDS OF MEXICO AND CENTRAL AMERICA SOUTH OF NICARAGUA"
black and white [1:63,000,000]

LEGEND

- | | |
|-------------------------------|-----------------------------|
| 1. Deciduous forest formation | 2. Montane temperate forest |
|-------------------------------|-----------------------------|

MARTIN, PAUL S. and BYRON E. HARRELL

1957 "The Pleistocene history of temperate biotas in Mexico and eastern United States." *Ecology*, vol. 38, p. 475.

- [1957] "NORTH AMERICA, ORIGINAL NATIVE VEGETATION"
black and white [1:50,000,000]

LEGEND

- | | |
|-------------------------------|-------------------------------|
| 1. Tundra and ice | 4. Mediterranean scrub forest |
| 2. Taiga | 5. Grassland |
| a. Northwestern rain forest | 6. Desert |
| 3. Temperate deciduous forest | 7. Tropical rain forest |

SIMPSON, GEORGE GAYLORD, COLIN S. PITTENDRIGH and LEWIS TIFFANY

1957 *Life, an introduction to biology*. New York, Harcourt, Brace and Co., p. 695.

- [1957] "[PLAINS, PRAIRIE, AND MEXICAN DESERT FLORAS]"
black and white [1:24,700,000]

LEGEND

- | | |
|-------------------------|---------------------------|
| A. Mexican desert flora | 3. Chihuahuan desert |
| 1. Mojavean desert | B. Plains & prairie flora |
| 2. Sonoran deserts | 4. Great plains grassland |
| a. Colorado desert | 5. Prairie |
| b. Arizona desert | 6. Desert grassland |

BENSON, LYMAN

1957 *Plant classification*. Boston, D. C. Heath and Co., p. 613.

- [1957] "[FLORAS OF THE EASTERN UNITED STATES AND SOUTHEASTERN CANADA]"
black and white [1:22,400,000]

LEGEND

- A. Northern forest flora
 - 1. American northern forest
 - 2. Transition-northern and deciduous forests (hemlock-white pine-northern hardwoods)
- B. Eastern forest flora, the deciduous forests
 - 3. Mixed mesophytic
 - 4. Beech-maple
 - 5. Maple basswood
 - 6. Oak-hickory
 - 7. Oak-chestnut
 - 8. Southern pine (maintained by fires)
 - 9. Southern riverbottom (maintained by flooding)
- C. American subtropical flora
 - 10. Caribbean subtropical flora

BENSON, LYMAN

1957 *Plant classification*. Boston, D. C. Heath and Co., p. 630.

- [1957] "PACIFIC NORTHWESTERN FLORA"
black and white [1:18,100,000-western United States;
1:55,100,000-Canada and Alaska]

LEGEND

- 1. Pacific forest
- 2. Sierran subalpine forest
- 3. Sierran montane forest
- 4. Palouse prairie

BENSON, LYMAN

1957 *Plant classification*. Boston, D. C. Heath and Co., p. 593.

- [1957] "NORTH AMERICA, NATURAL VEGETATION"
in color 1:9,000,000

LEGEND

- 1. Ice desert
- 2. Tundra & alpine flora
- 3. Northern & eastern coniferous forest
- 4. Cordilleran & Pacific [coniferous forest]
- 5. Broad-leaved forest & meadow
- 6. Upland [forest and meadow]
- 7. Evergreen forest
- 8. Evergreen trees & shrubs
- 9. Temperate grasslands
- 10. Semi-desert
- 11. Desert
- 12. Tropical thorn forest
- 13. Tropical & equatorial rain forest

UNSTEAD, J. F. and E. G. R. TAYLOR (eds.)

[1957] [Separately published.] Philip's series of comparative wall atlases. London, George Philip and Son, Ltd.

- [1958] "NORTH AMERICA, NATURAL VEGETATION"
in color [1:68,000,000]

LEGEND

- | | |
|--|----------------------------------|
| 1. Needleleaf evergreen trees | 5. Scrub woodland |
| 2. Broadleaf evergreen trees | 6. Grasslands |
| 3. Broadleaf deciduous trees | 7. Semiarid or desert vegetation |
| 4. Mixed deciduous and evergreen trees | 8. Little or no vegetation |
| | 9. Tundra or heath |

ANON.

1958 *Rand McNally cosmopolitan world atlas*. New York, Rand McNally & Company, p. xxix.

1958

“NORRDAMERIKA: VEGETATION”

in color

1:42,550,000

LEGEND

1. Heutige Eisbedeckung
2. Arktische Kältewüste (Frostschuttzone)
3. Tundra (Barren Grounds)
4. Waldtundra
5. Borealer Nadelwald (Fichten, Tannen, Lärchen, Kiefern, Pappeln, Birken)
6. Nordöstlicher Mischwald (Hemlock, Rotkiefer, Hickory, Rotbuche, Gelbbirke, Ahornarten)
7. Appalacherischer Laubwald (Edelkastanie, Bergeiche und Tulpenbaum)
8. Eichen-Hickory-Laubwald des Mittl. Westens
9. Prärie-Grasland (Hochgrassteppe)
10. Plains-Grasland (Kurzgrassteppe)
11. Nördliche Waldsteppe
12. Eichen-Kiefern-Mischwald der Piedmontregion
13. Subtropische Kiefernwälder
14. Subtropische Sumpf- und Auenwälder (Sumpfyzypresse, *Nyssa*, Amberbaum)
15. Marschengrasland (*Spartina*, Indianer-Reis)
16. Sagebrush (Wermut-Halbstrauchsteppe von *Artemisia tridentata*)
17. Chaparral (Macchien und Hartlaubwälder von immergrünen Eichen)
18. *Sequoia*-Wälder der Küstennebelregion von Kalifornien
19. Kiefernwälder der Kordilleren (*Pinus ponderosa*, *P. contorta*, z. T. Douglas-tannen und Engelmann-Fichten)
20. Pinon (Ölsamenkiefern)—*Juniperus*-Wälder des Grossen Beckens
21. Kalifornische Nadelwälder von Kiefern (*Pinus ponderosa*, *P. lambertiana*) und Weihrauchzedern (*Libocedrus decurrens*)
22. Nadelwald der pazifischen Küstengebirge (Douglastanne, Sitkafichte, *Thuja plicata*, Western Hemlock)
23. Subalpine Nadelwälder der Kordilleren von Columbia bis Mexiko
24. Creosot-Busch (Subtropische Dornbusch-Sukkulente-steppe mit *Covillea tridentata*, Kakteen, *Yucca*, Agaven)
25. Subtropische und Tropische Dornsavanne (Mesquite-Grasland) und Dornbusch (Palo-verde-Formation)
26. Tropische Savannen- und Fallaubwälder
27. Tropische Kiefern-Savanne (mit *Pinus caribaea*)
28. Tropischer Regenwald des Tieflandes und der Gebirge
29. Tropische Höhenmischwälder von Kiefern und Eichen
30. Mangrovwald der Tropischen Küsten

TROLL, C.

1958 “Nordamerika: Vegetation.” *Grosser Herder-Atlas*, p. 197.

1958 "CONIFER FORESTS OF MEXICO AND CENTRAL AMERICA"
 black and white 1:20,000,000

LEGEND

1. Conifer forests

MIROV, N. T. and EGON LARSEN

1958 "Possibilities of Mexican and Central American pines in the world reforestation projects." *The Caribbean Forester*, vol. 49, p. 46.

[1958] "VEGETATION MAP OF NORTHWESTERN NORTH AMERICA" [AREA: ALASKA, YUKON, WESTERN NORTHWEST TERRITORIES, AND NORTHWESTERN BRITISH COLUMBIA]
 in color 1:2,500,000

LEGEND

A. Treeless region

1. Rock desert, sand plains, and bare rock
2. Herbaceous tundra
3. Shrub tundra

B. [Forested region]

5. Interior spruce and birch forest region
6. Coastal spruce and hemlock forest region
7. Engelmann spruce and lodgepole pine forest region

SIGAFOOS, ROBERT S.

1958 "Vegetation of northwestern North America, as an aid in interpretation of geologic data." *U. S. Geol. Surv., Bull.* no. 1016-E, in pocket.

[1959] "NORTH AMERICA"
 in color [1:44,400,000]

LEGEND

- | | |
|---------------------------------|----------------------------------|
| 1. Tundra and permanent snow | 7. Desert |
| 2. Evergreen needleleaf forest | 8. Irrigated dry land |
| 3. Mid-latitude mixed forest | 9. Tropical woodland and savanna |
| 4. Mediterranean scrub woodland | 10. Tropical forest |
| 5. Prairie | 11. Cultivation |
| 6. Steppe | |

McFALL, CHRISTIE and VINCENT KOTSCHAR

1959 *In* James, Preston E., and Nelda Davis, *The wide world, a geography*. New York, The Macmillan Company, p. 142.

[1959] "FOREST ZONES OF EASTERN NORTH AMERICA HAVING DIFFERENT POTENTIAL ISOTOPE CONTAMINATION PROBLEMS"
 black and white [1:16,200,000]

LEGEND

- | | |
|--------------------|---|
| 1. Boreal forest | 4. Outliers of northern forest or spruce-fir, at high elevations in southern Appalachians |
| 2. Northern forest | |
| 3. Central forest | |

- | | |
|-------------------------|------------------------|
| 5. Grassland transition | 7. Tropical vegetation |
| 6. Southern forest | |

Several types of sub-types are mapped but not identified

AUERBACH, S. I., *and others*

1959 *Ecological research*. Oak Ridge National Laboratory, waste disposal research and engineering, Health Physics Division Annual Progress Report for period ending July 31, 1959, p. 42.

- [1959] "THE UNITED STATES OF AMERICA (MIDCONTINENTAL) [INCLUDES SOUTHERN CANADA]"

in color [1:12,700,000]

LEGEND

- | | |
|---------------------------------|-----------------------|
| 1. Tundra and permanent snow | 6. Steppe |
| 2. Evergreen needleleaf forest | 7. Desert |
| 3. Mid-latitude mixed forest | 8. Irrigated dry land |
| 4. Mediterranean scrub woodland | 9. Cultivation |
| 5. Prairie | |

McFALL, CHRISTIE *and* VINCENT KOTSCHAR

1959 *In* James, Preston E., and Nelda Davis, *The wide world, a geography*. New York, The Macmillan Company, pp. 144-145.

- [1959] "NORTHWESTERN UNITED STATES AND SOUTHEASTERN CANADA"

in color [1:6,336,000]

LEGEND

- | | |
|---------------------------------|----------------------------------|
| 1. Tundra and permanent snow | 7. Desert |
| 2. Evergreen needleleaf forest | 8. Irrigated dry land |
| 3. Mid-latitude mixed forest | 9. Tropical woodland and savanna |
| 4. Mediterranean scrub woodland | 10. Tropical forest |
| 5. Prairie | 11. Cultivation |
| 6. Steppe | |

McFALL, CHRISTIE *and* VINCENT KOTSCHAR

1959 *In* James, Preston E., and Nelda Davis, *The wide world, a geography*. New York, The Macmillan Company, p. 146.

- [1961] "THE LAND BENEATH US [NORTHERN MEXICO, MID-CONTINENT UNITED STATES, SOUTHERN CANADA]"

in color [1:6,400,000]

LEGEND

1. Snow and ice: permanent
2. Tundra: mosses and stunted arctic plants
3. Forest: needleleaf evergreen
4. Forest: needleleaf evergreen and deciduous
5. Grassland: tall grass, prairie
6. Grassland: short grass and steppe
7. Grassland: Mediterranean scrub, woodland, and grassland
8. Desert: bunch grass, shrub and dry wasteland
9. Savanna: tropical grass with scattered deciduous woodlands
10. Forest: tropical broadleaf evergreen

JEPPESSEN & COMPANY

1961 *United Air Atlas*. [N. p.], United Air Lines.

1961 "SOUTHEASTERN ARIZONA AND ADJACENT PORTIONS OF NEW MEXICO, SONORA AND CHIHUAHUA"

black and white

1:2,775,000

LEGEND

- | | |
|--------------|----------------------|
| 1. Desert | 4. Pine-oak woodland |
| 2. Grassland | 5. Coniferous forest |
| 3. Encinal | |

BOGERT, CHARLES M. and WILLIAM G. DEGENHARDT

1961 "An addition to the fauna of the United States, the Chihuahua ridge-nosed rattlesnake in New Mexico." *American Museum Novitates*, No. 2064, p. 4.

[1962] "NORTHERN NORTH AMERICA"

black and white

[1:30,000,000]

LEGEND

- | | |
|--|------------------------------------|
| 1. Tundra and alpine vegetation | 6. Mixed lake and deciduous forest |
| 2. Boreal, sub-alpine and montane coniferous forests | 7. Deciduous summer forest |
| 3. Coast and lake forests | 8. Grove belt |
| 4. Mixed boreal and deciduous forest | 9. Prairies |
| 5. Mixed boreal and lake forest | 10. Sage brush, chaparral, etc. |
| | 11. Ice |

EYRE, S. R.

1963 *Vegetation and soils, a world picture*. Chicago, Aldine Publishing Co., pp. 286-287.

[1962] "SOUTHERN NORTH AMERICA"

black and white

[1:27,000,000]

LEGEND

- | | |
|---|--|
| 1. Tropical rain forest | 12. Mixed boreal and lake forest |
| 2. Tropical semi-evergreen and deciduous forest | 13. Mixed boreal, lake and deciduous forest |
| 3. Thorn forest | 14. Mixed lake and deciduous forest |
| 4. Cactus scrub | 15. Deciduous summer forest |
| 5. Cactus scrub and desert grass | 16. Mixed southern pine and deciduous forest |
| 6. Tropical montane forest and conifers | 17. Southern pine forest |
| 7. Tropical montane forest | 18. Broad-leaved evergreen forest |
| 8. Alpine vegetation | 19. Prairie and Great Plains grassland |
| 9. Boreal, sub-alpine and montane coniferous forest | 20. Sage brush, chaparral, etc. |
| 10. Coast and lake forest | 21. Sclerophyllous chaparral |
| 11. Mixed boreal and deciduous forest | |

EYRE, S. R.

1963 *Vegetation and soils, a world picture*. Chicago, Aldine Publishing Co., pp. 288-289.

CANADA

1748 "[CHIGNECTO BAY TO BAIE VERTE, NEW BRUNSWICK AND NOVA SCOTIA]"
 black and white [1:1,000,000]

LEGEND

1. Marshland

BIRD, J. BRIAN

1955 "Settlement patterns in Maritime Canada." *Geographical Review*, vol. 45, p. 388.

1887 "MAP SHOWING WOODED AND PRAIRIE TRACTS IN PART OF NORTHERN ALBERTA, AND PORTIONS OF THE DISTRICTS OF ASSINIBOIA AND SASKATCHEWAN, NORTH WEST TERRITORY"
 black, green, and white 1:506,880

LEGEND

1. Region generally wooded
2. Region partly wooded and with scattered trees and coppice
3. Wooded river valleys

TYRRELL, J. B.

1887 [Separately published] [Ottawa], Geological and Natural History Survey of Canada.

1900 "MAP OF PART OF THE ISTHMUS OF CHIGNECTO TO ILLUSTRATE THE EXTENT AND DISTRIBUTION OF THE SALT MARSHES AND BOGS [NEW BRUNSWICK AND NOVA SCOTIA]"
 red, black, and white [1:150,000]

LEGEND

- | | |
|--------------------|--------|
| 1. Reclaimed marsh | 3. Bog |
| 2. Wild marsh | |

GANONG, W. F.

1903 "The vegetation of the Bay of Fundy salt and diked marshes: an ecological study." *Botanical Gazette*, vol. 36, facing p. 164.

[1908] "FOREST REGIONS OF CANADA"
 black and white [1:46,000,000]

LEGEND

- | | |
|-----------------------|------------------------|
| A. Atlantic | 3. Middle St. Lawrence |
| 1. Acadian | 4. Lower St. Lawrence |
| 2. Upper St. Lawrence | 5. Southern Laurentian |

- | | |
|-----------------------------|---------------------------|
| B. Pacific | 9. Southern Coast |
| 7. Southern Rocky Mountains | 10. Northern Coast |
| 8. Northern Rocky Mountains | 11. [Grasslands] |
| 6. Subarctic | a. Plains and prairies |
| a. Northern | b. Woodlands and prairies |
| b. Southern | 12. Tundra |

FERNOW, B. E.

1908 "An analysis of Canada's timber wealth." *Forestry Quarterly*, vol. 6, p. 342.

- 1908 "THE TIMBER BELT OF THE NORTH [MANITOBA AND NORTHWEST TERRITORIES TO BRITISH COLUMBIA AND YUKON TERRITORY]"
in color 1:2,217,600

LEGEND

- | | |
|--------------------------|---|
| 1. Poor scattered timber | 6. The bare or treeless lands, commonly known as "The Barren Lands" |
| 2. Fairly wooded | |
| 3. Thickly wooded | |
| 4. Brule | 7. Unexplored |
| 5. Prairie | |

Overprinted figures indicate average diameter of trees in several regions

YOUNG, R. E.

1908 *In* Fernow, B. E., "An analysis of Canada's timber wealth." *Forestry Quarterly*, vol. 6, inserted between pp. 336-337.

- [1923] "FOREST REGIONS OF CANADA"
in color [1:30,200,000]

LEGEND

1. Northeastern hardwood and coniferous forest (birch, beech, maple, spruce and fir)
2. Southern hardwood forest (oak, chestnut, hickory, hemlock, yellow poplar)
3. Northeastern pine forest (jack, red, and white pine)
4. Arctic forest (spruce fir)
5. Western spruce forest (lodgepole pine, Engelmann spruce)
6. Northwestern coniferous forest
 - a. Western larch, western white pine, western red cedar
 - b. Pacific coast Douglas fir, cedar, Sitka spruce, western hemlock
 - c. Yellow pine, Rocky Mtn. Douglas fir

ZON, RAPHAEL and WILLIAM N. SPARHAWK

1923 *Forest resources of the world*. New York, McGraw-Hill Book Co., Inc., vol. 2, facing p. 496.

- [1924] "MAP OF THE SOUTHERN PORTION OF DOMINION OF CANADA INDICATING VEGETATION AND FOREST COVER"
in color [1:6,340,000]

LEGEND

1. Treeless zone (this includes the northern treeless plains and mountains above timber line, alpine summits)

2. Northern hygrophytic evergreen forest (coastal and interior wet belts of British Columbia distinguished by western hemlock, Sitka spruce, amabilis fir)
3. Belt of scant precipitation of southern Br. Columbia (distinguished by yellow pine, bunch grass and sage, mingled with open stands of Douglas fir and lodgepole pine at higher elevations)
4. Northern coniferous forest (principally spruce, merging gradually in central Canada into northern mixed forest and in northern British Columbia into the taller and denser interior vegetation where Engelmann spruce predominates)
5. Northern mixed forest (spruce, birch, tamarack, willow)
6. Grove belt (transitional zone) (distinguished by clumps or groves of poplar interspersed with open prairie patches covered with long coarse grass)
7. Prairie vegetation (grass land) (distinguished by short grass and almost devoid of trees except fringes along some of the rivers and lakes)
8. Eastern coniferous forest (containing spruce, red, white and Banksian (jack) pine. The northern limit of white pine is reached in this area; its principal commercial occurrences are shown by the darker shade of blue)
9. Hardwood forest (distinguished by preponderance of deciduous trees such as maple, birch, beech, elm, ironwood, willow, poplar)
10. Mixed forest (pine, spruce, and hardwoods)
11. Carolinian zone (now Ontario's fruit belt, with a few remaining specimens of hickory, oak, black walnut, chestnut, sycamore)
12. Cleared portion of mixed forest belt (about one-ninth of this area is still under forest cover which exists principally as wood lots)

CANADA. *Natural Resources Intelligence Service*

1924 [Separately published] Canada, Dept. Interior, Nat. Resources Intelligence Serv.

[1925] "VEGETATION [OF CANADA]"

in color

1:30,000,000

LEGEND

- | | |
|---|-------------------------------|
| 1. Tundra (Arctic pastures) | 7. Acadian mixed forest |
| 2. Alpine | 8. Lodgepole pine |
| 3. Northern subarctic forest (without fir) | 9. Pacific coniferous, north |
| 4. Southern subarctic forest (spruce and fir) | 10. Pacific coniferous, south |
| 5. Laurentian coniferous forest | 11. Bull pine-larch |
| 6. Hardwood forest | 12. Prairie |
| | 13. Plains |

After B. E. Fernow

GOODE, JOHN PAUL

1925 *In Goode's school atlas, physical, political, and economic for American schools and colleges.* Chicago, Rand McNally and Co., p. 24. (Reprinted, *idem*, editions of 1933, 1943, and 1948.)

[1926] "MAP OF THE DOMINION OF CANADA SHOWING FOREST REGIONS"

black and white

[1:46,100,000]

LEGEND

- | | |
|-----------------------|----------------------|
| A. Cordilleran region | 2. Interior dry belt |
| 1. Coast belt | 3. Interior wet belt |

- | | |
|--|--|
| <ul style="list-style-type: none"> 4. Rocky Mt. belt 5. Subarctic belt 6. Treeless | <ul style="list-style-type: none"> C. Eastern region 12. Carolinian belt 13. Tolerant hardwood belt 14. Acadian belt 15. Mixed hardwood & soft-wood belt 16. Transition belt 17. Northern forest belt 18. Subarctic belt 19. Treeless |
| <ul style="list-style-type: none"> B. Great plains region 7. Prairie belt 8. Semi prairie belt 9. Northern forest belt 10. Subarctic belt 11. Treeless | |

CRAIG, RONALD D.

1926 "The forest resources of Canada." *Economic Geography*, vol. 2, p. 394.

[1928] "MAP OF THE PRINCIPAL FOREST TYPES IN THE ATHABASKA-GREAT SLAVE LAKE REGION [OF ALBERTA, SASKATCHEWAN, AND THE NORTHWEST TERRITORIES]"

black and white

[1:5,700,000]

LEGEND

- | | |
|---|---|
| <ul style="list-style-type: none"> 1. Tundra 2. Park-like white spruce 3. Jack pine 4. Flood plain white spruce | <ul style="list-style-type: none"> 5. White spruce-aspen-semi-open prairies 6. Upland mesophytic white spruce 7. Black spruce-lodgepole pine 8. White spruce-balsam fir |
|---|---|

RAUP, HUGH M.

1946 "Phytogeographic studies in the Athabaska-Great Slave Lake region, II." *Jour. Arnold Arboretum of Harvard Univ.*, vol. 27, p. 62.

1930 "THE DISTRIBUTION OF THE ASPEN PARKLAND"

black and white

[1:8,600,000]

LEGEND

- 1. Aspen parkland

BIRD, RALPH D.

1930 "Biotic communities of the aspen parkland of central Canada." *Ecology*, vol. 11, p. 361.

[1930] "MAP OF THE DOMINION OF CANADA EXCLUSIVE OF NORTHERN REGIONS INDICATING VEGETATION AND FOREST COVER"

in color

[1:6,340,000]

LEGEND

- 1. Treeless area: This includes the northern treeless plains and mountains above the timber line. The treeless plains support a growth of mosses, lichens, heath plants, arctic flowers, (especially arctic poppies) and in favourable localities scrub-willow and some grasses
- 2. Western coniferous forest of the coastal and interior wet belts of British Columbia: The coast belt is distinguished by Douglas fir, cedar, hemlock, amabilis fir, sitka spruce, yellow cypress and western white pine. Broad-leaved maple, black cottonwood and Oregon alder occur on the flood plains

- of the streams and on first terraces around lakes and marine inlets. The interior belt is distinguished by cedar, Douglas fir, hemlock, larch, white pine, Engelmann spruce, lowland fir, alpine fir and black cottonwood
3. Semi-open coniferous forest of southern interior, British Columbia: The open spaces support a sage brush-bunch grass vegetation, while the sides of the more or less open valleys are clothed with bunch grass growing under an open stand of yellow pine which gradually yields place to Douglas fir, western larch and lodgepole pine at higher elevations
 4. Sub-arctic forest: The trees growing at the northern limits of forest growth are black spruce, white spruce, tamarack and willow. Farther south these mingle in succession with canoe birch, aspen poplar, jack pine, balsam poplar and balsam fir, and in southern Yukon with lodgepole pine
 5. Northwestern coniferous forest: The principal components of this forest are black spruce, jack pine, white spruce, balsam fir, poplar, canoe birch, tamarack and willow. Lodgepole pine, Engelmann spruce, alpine fir, Douglas fir and western hemlock are the principal trees found on the foothills and in northern British Columbia
 6. Grove belt (transitional): This belt, now practically all settled, is distinguished by groves or clumps of trees interspersed with open prairie patches covered with coarse grass. The trees are mostly poplar, in some localities mingled with jack pine and canoe birch, and in moist situations with spruce, balsam fir, and tamarack. Oak and ash-leaved maple are also found in the eastern portion and lodgepole pine and spruce in the western
 7. Prairie vegetation (grass land): Distinguished by short grass and almost devoid of trees, except fringes along some of the rivers and lakes. This area
 8. Eastern coniferous forest: The principal components of this forest are white pine, black spruce, balsam fir, white spruce, red pine, jack pine, white cedar, and tamarack often mingled with varying quantities of white birch, poplar, maple and elm. The limit of white pine is marked by the northern boundary of the belt, but the limit of its occurrence in commercial quantities is much farther south
 9. Mixed forest: Consists of yellow birch, sugar maple, basswood (especially in the western section), beech, elm, ash and ironwood, mingled with white pine, black spruce, balsam fir, red pine, white spruce, white cedar, hemlock, jack pine and tamarack, also with red spruce in eastern Quebec and Maritime Provinces
 10. Cleared portions of eastern forest belts, including the hardwood forests of southern Ontario and southern Quebec: This area is largely under cultivation and the original forest type is to be seen only in farmers' wood-lots. The trees are principally yellow birch, maple, beech, basswood, elm, ash, oak, hickory, butternut, and ironwood mingled with pine, spruce, balsam, hemlock, tamarack and cedar
 11. Southern hardwood forest (practically all cleared): The original forest was composed of sugar maple, beech, elm, chestnut, black walnut on the heavier soils, with oak, hickory, sycamore, tulip tree, magnolia, mulberry, coffee tree, sassafras, black gum and papaw on the lighter and sandier soils

CANADA. *National Development Bureau*

1930 [Separately published] Canada, Dept. Interior, National Development Bureau.

1937 "FOREST CLASSIFICATION OF CANADA AND COAST OF LABRADOR SOUTH OF LATITUDE 75°"
in color

1:6,336,000

LEGEND

- | | |
|--|--|
| <p>A. Forest Formation</p> <ol style="list-style-type: none"> 1. Boreal forest region 2. Sub-alpine forest region 3. Montane forest region 4. Coast forest region 5. Columbia forest region 6. Deciduous forest region | <ol style="list-style-type: none"> 7. Great Lakes-St. Lawrence forest region 8. Acadian forest region <p>B. Grassland Formation</p> <ol style="list-style-type: none"> 9. Interior plains 10. Sage-bunch grass 11. Tundra formation (arctic and alpine) |
|--|--|

Forest sections shown by number and letter overprint

HALLIDAY, W. E. D.

1937 *Report on forest classification of Canada and the coast of Labrador*. Canada Dept. of Mines and Resources. Forest Service Bull. 89.

[1938] "NATURAL VEGETATION [OF THE PRAIRIE PROVINCES]"

black and white

[1:11,900,000]

LEGEND

1. Prairie vegetation (grassland), distinguished by short grass and almost devoid of trees, except fringes along some of the rivers & lakes
2. Park or grove belt
3. Northwestern coniferous forest, merged with sub-arctic and western coniferous forest
4. Semi-open coniferous forest
5. Treeless

Based on Natural Resources Intelligence Service [1924]

MORTON, ARTHUR S.

1938 *In* Morton, Arthur S., and Chester Martin, "History of prairie settlement and 'Dominion lands' policy." *In* Mackintosh, W. A., and W. L. G. Joerg (eds.), *Canadian frontiers of settlement*. Toronto, Macmillan Co. Canada, Ltd., vol. 2, p. 34.

[1939] "VEGETATION BELTS OF WESTERN CANADA [ALBERTA, SASKATCHEWAN, AND MANITOBA]"

black and white

[1:17,300,000]

LEGEND

- | | |
|---|--|
| <p>A. Grassland region</p> <ol style="list-style-type: none"> 1. Short-grass plains 2. Mixed grassland 3. Tall prairie grassland and aspen grove 4. Tall prairie grassland and oak-aspen grove 5. Tall grassland <p>B. Forest region</p> <ol style="list-style-type: none"> 6. Rainy River section. Boreal forest 7. English River section 8. Manitoba lowlands section | <ol style="list-style-type: none"> 9. Mixed woods section 10. Foothills section 11. Hyper-Churchill section 12. Nelson River section 13. Northern coniferous section 14. Mackenzie lowlands section 15. Northern transition section <p>C. Subalpine</p> <ol style="list-style-type: none"> 16. S. A. east slope Rocky Mountains section <p>D. Tundra region. Arctic prairie</p> <ol style="list-style-type: none"> 17. Arctic prairie or tundra |
|---|--|

SOILS DEPARTMENT, UNIVERSITY OF MANITOBA, *from information by W. E. D. Halliday*
 1940 In Ellis, J. H., "Soil zones and land use in western Canada."
Proc. Sixth Pacific Sci. Congr., vol. 4, p. 854.

[1941] "FOREST CLASSIFICATION OF CANADA AND COAST OF LABRADOR, SOUTH OF
 LATITUDE 75°"

in color

[1:18,500,000]

LEGEND

[Region and principal species]

1. Acadian—spruce, balsam, yellow birch, maple, pine
2. Great Lakes, St. Lawrence—pine, spruce, yellow birch, maple
3. Deciduous—tolerant hardwoods
4. Boreal—spruce, balsam, white birch, poplar, jack pine
5. Sub-alpine—Engelmann spruce, lodgepole pine
6. Columbia—Eng. spruce, Douglas fir, cedar, hemlock, larch
7. Montane—Ponderosa and lodgepole pines, spruce, Douglas fir
8. Coast—Douglas fir, cedar, hemlock, Sitka spruce
9. Grassland
10. Alpine and arctic tundra

CANADA. *Dominion Forest Service*

1941 In *The Canada year book*, 1941 . . . Ottawa, Dominion Bur.
 Statistics, Dept. Trade and Commerce, Canada, facing p. 188.

[1942] "GENERALIZED MAP OF SOIL ZONES AND VEGETATIONAL ASSOCIATIONS"

black and white

[1:7,400,000]

LEGEND

- | | |
|------------------------|-----------------------|
| 1. Short grass prairie | 4. Tall grass prairie |
| 2. Mixed prairie | 5. Parkland |
| 3. Submontane prairie | 6. Coniferous forest |

Also indicates "soil zone boundaries"

CLARKE, S. E., J. A. CAMPBELL and J. B. CAMPBELL

1942 *An ecological and grazing capacity study of the native grass
 pastures in southern Alberta, Saskatchewan, and Manitoba.* Dominion
 of Canada, Dept. Agr., Publ. no. 738 (Tech Bull. no. 44), p. 11.

[1944] "MAP OF CANOL ROAD, YUKON AND NORTHWEST TERRITORIES, SHOWING
 DISTRIBUTION OF FORESTS ALONG THE TRANSECT COVERED BY THE PRESENT
 REPORT [WHITEHORSE TO NORMAN WELLS]"

black and white

[1:3,200,000]

LEGEND

- | | |
|--|------------------|
| 1. White spruce-lodge pole pine-
aspen | 4. Black spruce |
| 2. White spruce-balsam poplar | 5. Alpine fir |
| 3. White spruce-paper birch-
black spruce | 6. Alpine tundra |

PORSILD, A. E.

1951 "Botany of southeastern Yukon adjacent to the Canol Road."
Nat. Mus., Canada, Bull. no. 121, p. 29.

- [1947] "DISTRIBUTION OF GRASSLAND AND FOREST TYPES, SOUTHERN GREAT PLAINS OF CANADA [INCLUDING SOUTHERN ALBERTA, SASKATCHEWAN, AND MANITOBA]"
black and white [1:9,000,000]

LEGEND

- | | |
|---------------------------------|-----------------------------|
| A. Forest types | 5. Mixed-grass prairie |
| 1. Mixedwood forest | 6. Short-grass prairie |
| 2. Manitoba Lowlands forest | 7. Submontane mixed prairie |
| 3. Subalpine and montane forest | 8. Aspen grove |
| B. Grassland types | 9. Aspen-oak grove |
| 4. True prairie | |

WATTS, F. B.

1960 "The natural vegetation of the southern Great Plains of Canada." *Geographical Bulletin*, no. 14, p. 26.

- 1947 "FOREST TYPES: YUKON, NORTHWEST TERRITORIES (WESTERN), NORTHERN BRITISH COLUMBIA AND NORTHERN ALBERTA"
in color 1:5,068,800

LEGEND

- | | |
|-----------------------------|---------------------------|
| 1. Boreal forest region | 4. Coast forest region |
| 2. Sub-alpine forest region | 5. Columbia forest region |
| 3. Montane forest region | |

NORTH PACIFIC PLANNING PROJECT

1947 Ottawa, Geographical Section, G. S., Department of National Defense.

- 1947 "FORESTRY MAP OF CANADA"
in color 1:63,360

LEGEND

- | | |
|----------------------------|----------------------------|
| 1. Softwood, above 30 feet | 4. Softwood, below 30 feet |
| 2. Hardwood, above 30 feet | 5. Hardwood, below 30 feet |
| 3. Mixed, above 30 feet | 6. Mixed, below 30 feet |

Black letter and number symbols indicate crown cover and height. Other symbols indicate marsh, bog or open muskeg and muskeg with stunted trees.

CANADA. *Department of Mines and Resources*

1947 and continuing. Forestry Map of Canada. Ottawa. Dominion Forest Service.

SHEETS IN SERIES

- | | |
|---------------------|-----------------------------|
| 11 E/10—New Glasgow | 31 H/9—Richmond |
| 21 E/3—Malvina | 31 0/9—Manuan Lake |
| 21 E/4—Coaticook | 31 0/10—Mitchinamecus River |
| 21 E/5—Sherbrooke | 31 0/15—Lac Dix-Milles |
| 21 J/7—Napadogan | 31 0/16—Lac Letondal |
| 31 H/1—Memphremagog | 82 J/15—Bragg Creek |
| 31 H/8—Orford | 82 0/14—Marble Mountain |

- [1948] "THE MAIN REGIONS OF THE LABRADOR PENINSULA, AN APPROXIMATE SKETCH MAP"

LEGEND

- | | |
|------------------|---------------------------|
| 1. Tundra | 3. Taiga |
| 2. Forest-tundra | 4. Southern spruce region |

HUSTICH, ILMARI

1949 "On the forest geography of the Labrador Peninsula. A preliminary synthesis. IV. The phytogeographical regions of the Labrador Peninsula." *Acta Geographica*, vol. 10, no. 2, p. 52. (Reprinted, 1951 [1:31,000,000], in his "The lichen woodlands in Labrador and their importance as winter deer pastures for domesticated reindeer." *Ibid.*, vol. 12, no. 1, p. 5.)

- [1948] "THE PHYTOGEOGRAPHICAL AND FOREST REGIONS OF THE LABRADOR PENINSULA"

black and white

[1:28,400,000]

LEGEND

- | | |
|-------------------------------|-----------------------------------|
| 1. Transition section | 10. Western interior section |
| 2. Central Laurentian section | 11. Eastern interior section |
| 3. Clay-belt section | 12. Hamilton River section |
| 4. Mistassini section | 13. Atlantic Coast section |
| 5. Peribonka section | 14. Hudson Bay section |
| 6. North Shore section | 15. Ungava forest-tundra section |
| 7. Mingan-Anticosti section | 16. Koksoak forest-tundra section |
| 8. Western James Bay section | 17. Torngat section |
| 9. Eastern James Bay section | 18. Arctic Ungava section |

HUSTICH, ILMARI

1949 "On the forest geography of the Labrador Peninsula. A preliminary synthesis. IV. The phytogeographical regions of the Labrador Peninsula." *Acta Geographica*, vol. 10, no. 2, p. 48. [legend description pp. 47-52.]

- [1949] "MAP SHOWING LOCATION OF THE 'MIXEDWOODS' SECTION (SOUTHERN BOREAL FOREST) IN SASKATCHEWAN AND MANITOBA"

black and white

[1:11,000,000]

LEGEND

- | | |
|-------------------------------|----------------|
| 1. Northern coniferous forest | 3. Aspen grove |
| 2. Mixedwoods | 4. Prairie |

ROWE, J. S.

1956 "Uses of undergrowth plant species in forestry." *Ecology*, vol. 37, p. 462.

- [1950] "FOREST REGIONS OF CANADA"

black and white

[1:76,600,000]

LEGEND

- | | |
|--------------------------------|-------------|
| 1. Northern [or boreal] forest | 2. Parkland |
|--------------------------------|-------------|

- | | |
|------------------------------------|---------------------|
| 3. Cordillera forest | 6. Deciduous forest |
| 4. Grassland | 7. Acadian forest |
| 5. Great Lakes-St. Lawrence forest | 8. Tundra or barren |

ROBINSON, J. LEWIS and M. JOSEPHINE ROBINSON

1950 *The geography of Canada*. New York, Longmans, Green and Co., p. 35.

- [1950] "PROPOSED FOREST REGIONS IN LABRADOR-UNGAVA"
black and white [1:31,700,000]

LEGEND

- | | |
|-------------------------|-----------------------------|
| 1. Forest tundra | 3. Main boreal forest |
| 2. Open boreal woodland | 4. Southern transition zone |

HARE, F. KENNETH

1950 "Climate and zonal divisions of the boreal forest formation in eastern Canada." *Geographical Review*, vol. 40, p. 617.

- [1950] "CANADA: FOREST REGIONS"
black and white [1:28,800,000]

LEGEND

- | | |
|-----------------------------|---|
| 1. Boreal forest region | 7. Great Lakes-St. Lawrence forest region |
| 2. Sub-alpine forest region | 8. Acadian forest region |
| 3. Montane forest region | 9. Grassland |
| 4. Coast forest region | 10. Tundra |
| 5. Columbia forest region | |
| 6. Deciduous forest region | |

[Based on map "Forest Classification of Canada," Canada Dept. Resources and Develop., Forestry Branch, special edition, 1950.]

TUNSTELL, GEORGE

1956 "Canada." In Haden-Guest, S., John K. Wright, and Eileen M. Teclaff (eds.), *A world geography of forest resources*. New York, Ronald Press Co., p. 129.

- [1951] "VEGETATION REGIONS"
black and white [1:38,300,000]

LEGEND

- | | |
|---|---------------------------|
| 1. Arctic tundra | 8. Columbia forest |
| 2. Sub-arctic or transitional forest region | 9. Mixed woods |
| 3. Alpine | 10. Park land |
| 4. Taiga or boreal forest region | 11. Prairie |
| 5. Pacific Coast forest | 12. Great Lakes forest |
| 6. Montane forest | 13. Acadian forest |
| 7. Rocky Mountain forest | 14. Niagara forest region |

PUTNAM, DONALD F.

1952 In Putnam, Donald F. (ed.), *Canadian regions, a geography of Canada*. Toronto, J. M. Dent and Sons (Canada) Ltd., p. 22.

[1951] "VEGETATION BELTS OF THE PRAIRIE PROVINCES"

black and white

[1:17,000,000]

LEGEND

- | | |
|-------------------------------|-------------------------|
| 1. Tundra | 6. Mixed grass prairies |
| 2. Sub-arctic forest | 7. Short grass prairie |
| 3. Northern coniferous forest | 7. Mountain forest |
| 4. Mixed wood | 9. Great Lakes forest |
| 5. Aspen grove | |

PUTNAM, DONALD F.

1951 "The physical geography of the Prairie Provinces." In Putnam, Donald F. (ed.), *Canadian regions, a geography of Canada*. Toronto, J. M. Dent & Sons (Canada), Ltd., p. 352.

[1951] "OUTLINE MAP OF THE PEACE RIVER REGION OF ALBERTA AND A SMALL PORTION OF BRITISH COLUMBIA"

black and white

[1:3,800,000]

LEGEND

1. Natural grasslands

MOSS, E. H.

1952 "Grassland of the Peace River region, western Canada." *Canadian Journal of Botany*, vol. 30, p. 101.

[1952] "NATURAL VEGETATION REGIONS (GENERALIZED)"

black and white

[1:47,500,000]

LEGEND

- | | |
|--|---|
| 1. Spruce, birch, jackpine and poplar generally dominant | 5. Conifers (of several varieties) |
| 2. Parkland—transition between forest and prairie | 6. Hardwoods |
| 3. Prairie | 7. Mixed forest |
| 4. Plains | 8. Conifers, with lodgepole pine dominant |

VAN CLEEF, EUGENE

42, p. 254.

1952 "Finnish settlement in Canada." *Geographical Review*, vol.

1955 "COVER TYPES (LABRADOR-UNGAVA)"

in color

1:3,814,000

LEGEND

- | | |
|---------------------------------|--------------------------|
| 1. Bare rock, lichen heath etc. | 5. Closed-crown forest |
| 2. Lichen woodland | 6. Alder-willow thickets |
| 3. Shrub woodland | 7. Bog and muskeg |
| 4. Sedge shrub tundra | 8. Burned areas |

HARE, F. KENNETH

1959 *A Photo-Reconnaissance Survey of Labrador-Ungava*. Ottawa, Geographical Branch, Mines and Technical Surveys. Memoir 6.

- [1956] "GRASSLAND IN WESTERN CANADA [ALBERTA, SASKATCHEWAN, AND MANITOBA]"
black and white [1:25,000,000]

LEGEND

1. Mixed prairie
2. True prairie
3. Fescue prairie interspersed with aspen groves
4. Transitional area of grassland composed of various species from each of the preceding associations

COUPLAND, R. T.

1956 In Weaver, J. E., and F. W. Albertson, *Grasslands of the Great Plains, their nature and use*. Lincoln, Nebraska, Johnsen Publishing Co., p. 360.

- [1956] "FOREST CLASSIFICATION OF CANADA SOUTH OF LATITUDE 75°"
in color [1:6,336,000]

LEGEND

- | | |
|---|--|
| <p>A. Forest regions</p> <ol style="list-style-type: none"> 1. Boreal forest region <ol style="list-style-type: none"> a. Predominantly forest b. Forest and grassland c. Forest and barren 2. Subalpine forest region 3. Montane forest region 4. Coast forest region 5. Columbia forest region | <ol style="list-style-type: none"> 6. Deciduous forest region 7. Great Lakes-St. Lawrence forest region 8. Acadian forest region <p>B. Grassland</p> <ol style="list-style-type: none"> 9. [Grassland] <p>C. Tundra</p> <ol style="list-style-type: none"> 10. [Tundra] |
|---|--|

CANADA. *Department of the Interior*

1959 In Rowe, J. S., *Forest regions of Canada*. Canada Dept. Northern Affairs and Nat. Resources, Forestry Branch, Bull. no. 123, in pocket.

- [1957] "NATURAL VEGETATION [OF CANADA]"
in color 1:20,000,000

LEGEND

- I. Arctic and alpine tundra
 1. Rock desert or fell field
 2. Stony sedge-moss-lichen-tundra
 3. Dwarf shrub-sedge-moss-lichen heath
 4. Mature sedge-grass-tundra
 5. Alpine tundra
- II. Prairie and foothill grassland
 6. Aspen parkland
 7. Mid-grass prairie
 8. Short-grass or mixed prairie
 9. Intermontane ponderosa pine-palouse grassland
- III. Forests (and woodland)
 - A. Northern forest region
 10. Subarctic forest-tundra transition
 11. Boreal forest

- B. Western forest region
 - 12. Cordilleran subalpine mesophytic forest
 - 13. Interior subalpine mesophytic forest
 - 14. Intermontane forest
 - 15. Coast forest
- C. Eastern Forest region
 - 16. Northeastern hardwood forest
 - 17. Southern deciduous hardwoods
- IV. Non-vegetated areas
 - 18. Existing glaciers

PORSILD, A. E.

1957 "Natural vegetation and flora." In *Atlas of Canada*. Ottawa, Dept. Mines and Tech. Surv., Geogr. Branch, pl. no. 38. (Reprinted, 1958 same scale, in his "Geographical distribution of some elements in the flora of Canada." *Geographical Bulletin*, no. 11, inserted between pp. 55-56.)

[1957] "WESTERN CANADA"

black and white

[1:4,100,000]

LEGEND

- | | |
|--|--|
| <ul style="list-style-type: none"> A. Boreal flora <ul style="list-style-type: none"> 1. Alpine tundra B. Northern forest flora <ul style="list-style-type: none"> 2. American northern forest C. Rocky Mt. forest flora <ul style="list-style-type: none"> 3. Rocky Mt. subalpine forest D. Pacific northwestern flora <ul style="list-style-type: none"> 4. Pacific forest | <ul style="list-style-type: none"> 5. Sierran subalpine forest 6. Sierran montane forest E. Sierra Madrean flora <ul style="list-style-type: none"> 7. Sagebrush desert F. Plains & prairie flora <ul style="list-style-type: none"> 8. Great Plains grassland |
|--|--|

BENSON, LYMAN

1957 *Plant classification*. Boston, D. C. Heath and Co., p. 602.

[1958] "THE FOUR MAJOR FOREST FORMATIONS IN EASTERN CANADA"

black and white

[1:17,300,000]

LEGEND

- | | |
|--|--|
| <ul style="list-style-type: none"> 1. Deciduous forest 2. Great Lakes-St. Lawrence forest 3. Acadian forest | <ul style="list-style-type: none"> 4. Boreal forest 5. Coniferous coastal belt of fir and spruce |
|--|--|

BLEAKNEY, J. SHERMAN

1958 "A zoogeographical study of the amphibians and reptiles of eastern Canada." *Natl. Mus. Canada, Bull.* no. 155 (Biol. Ser. no. 54), p. 73.

1961 "FOREST CLASSIFICATION OF THE MARITIME PROVINCES"

in color

[1:1,200,000]

LEGEND

- | | |
|--|--|
| <ul style="list-style-type: none"> 1. Sugar maple-ash zone <ul style="list-style-type: none"> a. St. John River ecoregion 2. Sugar maple-hemlock-pine zone | <ul style="list-style-type: none"> a. Restigouche-Bras D'or ecoregion b. Magaguadavic-Hillsborough ecoregion |
|--|--|

- | | |
|--|---|
| <ul style="list-style-type: none"> 3. Sugar maple-yellow birch-fir zone <ul style="list-style-type: none"> a. Maritime uplands ecoregion 4. Red spruce-hemlock-pine zone <ul style="list-style-type: none"> a. Clyde River-Halifax ecoregion b. Maritime lowlands ecoregion 5. Spruce-fir coast zone <ul style="list-style-type: none"> a. Fundy Bay ecoregion | <ul style="list-style-type: none"> b. Atlantic shore ecoregion 6. Fir-pine-birch zone <ul style="list-style-type: none"> a. New Brunswick highlands ecoregion b. Gaspé-Cape Breton ecoregion 7. Spruce taiga zone <ul style="list-style-type: none"> a. Cape Breton plateau ecoregion |
|--|---|

CANADA. *Department of the Interior. Forestry Branch*

1962 *In* Loucks, O. L., "A forest classification for the Maritime Provinces." *Proc. Nova Scotia Inst. Sci.*, Vol. 25, part 2, in pocket.

[n. d.] "DOMINION OF CANADA WITH NEWFOUNDLAND, NATURAL VEGETATION"
in color 1:5,000,000

LEGEND

- | | |
|--|--|
| <ul style="list-style-type: none"> 1. Montane and northern treeless regions 2. Subarctic forest 3. Northwestern coniferous forest 4. Eastern coniferous forest | <ul style="list-style-type: none"> 5. Semi-open coniferous forest 6. Western coniferous forest 7. Deciduous forest 8. Grassland (prairie vegetation) |
|--|--|

Names of principal tree species of each forest zone are overprinted in red

CORNISH, GEORGE *and* GEORGE PHILIP

[n. d.] [Separately published.] Philip's series of comparative wall atlases. London, George Philip and Son, Ltd.

ALBERTA

- [1926] "MUSKEG NO. 1 IN SHALLOW CLAY BASIN SURROUNDED BY MORAINIC BANKS"
 black and white [1:100]

LEGEND

- | | |
|------------------------------------|-----------|
| 1. <i>Scirpus-Carex</i> vegetation | 3. Muskeg |
| 2. <i>Carex</i> bog & <i>Salix</i> | |

LEWIS, FRANCIS J. and E. S. DOWDING

1926 "The vegetation and retrogressive changes of peat areas ("muskegs") in central Alberta." *Journal of Ecology*, vol. 14, p. 321.

- [1926] "TOPOGRAPHIC SKETCH OF NO. 2 MUSKEG, LOOMA DISTRICT"
 black and white [incalculable]

LEGEND

- | | |
|---|-----------------------------------|
| 1. <i>Carex</i> bog | 3. Dry muskeg, no <i>Sphagnum</i> |
| 2. Zone with mounds of dead <i>Sphagnum</i> | |

Also indicates position of "invading *Salix*" in *Carex* bog.

LEWIS, FRANCIS J. and E. S. DOWDING

1926 "The vegetation and retrogressive changes of peat areas ("muskegs") in central Alberta." *Journal of Ecology*, vol. 14, p. 325.

- [1926] "MUSKEG NEAR STONY PLAIN"
 black and white [incalculable]

LEGEND

- | | |
|-----------------------------|-----------------------------|
| 1. Muskeg lightly tree-clad | 3. <i>Carex</i> bog |
| 2. <i>Scirpus</i> bog | 4. Muskeg heavily tree-clad |

LEWIS, FRANCIS J. and E. S. DOWDING

1926 "The vegetation and retrogressive changes of peat areas ("muskegs") in central Alberta." *Journal of Ecology*, vol. 14, p. 327.

- [1928] "MAP OF THE PROVINCE OF ALBERTA, CANADA, SHEWING THE MAIN REGIONS OF VEGETATION"
 black and white [1:3,200,000]

LEGEND

- | | |
|-------------------------------|--------------|
| 1. Northern coniferous forest | 3. Park land |
| 2. Cordilleran forest | 4. Prairie |

LEWIS, FRANCIS J., ELEANOR S. DOWDING and E. H. MOSS

1928 "The vegetation of Alberta, II. The swamp, moor and bog forest vegetation of central Alberta." *Journal of Ecology*, vol. 16, facing p. 21.

- [1928] "TOPOGRAPHY AND VEGETATION OF LOW-MOOR SHOWING CENTRIFUGAL SPREAD OF *Sphagnum*"
black and white [incalculable]

LEGEND

- | | |
|--|-------------------------|
| 1. <i>Caricetum</i> | 6. Moraine |
| 2. <i>Sphagnum</i> , <i>Andromeda</i> | 7. Low-moor peat |
| 3. <i>Betula glandulosa</i> , <i>Salix</i> | 8. <i>Sphagnum</i> peat |
| 4. <i>Graminetum</i> | 9. Glacial clay |
| 5. Reed swamp | |

LEWIS, FRANCIS J., ELEANOR S. DOWDING and E. H. MOSS

1928 "The vegetation of Alberta, II. The swamp, moor and bog forest vegetation of central Alberta." *Journal of Ecology*, vol. 16, p. 29.

- [1929] "MAP OF THE VEGETATION IN THE LOWER ATHABASCA—LOWER PEACE—UPPER SLAVE RIVER REGION [AROUND LAKE CLAIRE]"
black and white [1:5,000,000]

LEGEND

1. Timbered country, aspen-Banksian pine-Canada spruce, local muskegs
2. Semi-open prairie, with low willow and aspen ridges
3. Floodplain timber and slough, Canada spruce-balsam poplar, etc.
4. Upland timber with prairie openings
5. Scrub timber on rocky hills, Banksian pine-canoe birch, muskegs in hollows

RAUP, HUGH M.

1930 "The distribution and affinities of the vegetation of the Athabasca-Great Slave Lake region." *Rhodora*, vol. 32, p. 197.

- [1930] "MAP OF VEGETATION IN THE CREE (MAMAWI) CREEK DISTRICT, ATHABASKA RIVER DELTA"
black and white [1:29,700]

LEGEND

1. Meadow—*Carex trichocarpa* var. *aristata*
2. Meadow—*Calamagrostis canadensis*
3. Pond shore marsh
4. Lake shore vegetation—*Scirpus validus*
5. Slough and delta willows—*Salix planifolia*—etc.
6. Lowland mixed timber—*Picea glauca*-*Populus tacamahacca*
7. Poplar timber—predominantly *Populus tacamahacca*
8. Spruce timber—predominantly *Picea glauca*

RAUP, HUGH M.

1935 "Botanical investigations in Wood Buffalo Park." *Natl. Mus. Canada, Bull.* no. 74 (Biol. Ser. no. 20), facing p. 68.

- [1930] "MAP OF VEGETATION IN PEACE POINT DISTRICT"
black and white [1:27,000]

LEGEND

1. *Populus tremuloides*-*Salix bebbiana*
2. Semi-open prairie
3. *Populus tacamahacca*-*Salix* spp. } Flood plain vegetation
4. *Picea glauca* }

RAUP, HUGH M.

1935 "Botanical investigations in Wood Buffalo Park." *Natl. Mus. Canada, Bull.* no. 74 (Biol. Ser. no. 20), p. 50. Reprinted, 1961 [1:55,800], in Jeffrey, W. W., "A prairie to forest succession in Wood Buffalo Park, Alberta." *Ecology*, vol. 42, p. 442.

- [1930] "MAP OF VEGETATION IN AN AREA ABOUT 3 MILES EAST OF MOOSE (EIGHT) LAKE"
black and white [1:24,000]

LEGEND

1. Wet meadow—*Carex* spp.
2. Prairie—*Calamagrostis*, *Agropyron*, *Koeleria*, etc.
3. Muskeg and prairie shrubs—*Betula glandulosa*, *Salix* spp.
4. Undifferentiated coniferous timber
5. Spruce timber—predominantly *Picea glauca*
6. Muskeg forest—*Picea mariana*
7. Sand ridge timber—*Pinus banksiana*
8. Low sand plain timber—*Pinus banksiana*
9. Mixed timber—predominantly *Populus tremuloides*

RAUP, HUGH M.

1935 "Botanical investigations in Wood Buffalo Park." *Natl. Mus. Canada, Bull.* no. 74 (Biol. Ser. no. 20), facing p. 40.

- [1930] "MAP OF VEGETATION IN THE DELTA OF QUATRE FOURCHES RIVER, EAST SHORE OF LAKE MAMAWI"
black and white [1:22,800]

LEGEND

1. Meadow—*Carex trichocarpa* var. *aristata*
2. Meadow—*Calamagrostis canadensis*
3. Pond shore marsh
4. Lake shore vegetation—*Scirpus validus*
5. Slough and delta willows—*Salix planifolia*—etc.
6. Scrub timber on granite hills—*Pinus banksiana*-*Picea glauca*-*Betula papyrifera*

RAUP, HUGH M.

1935 "Botanical investigations in Wood Buffalo Park." *Natl. Mus. Canada, Bull.* no. 74 (Biol. Ser. no. 20), facing p. 70.

- [1930] "MAP OF VEGETATION IN THE VICINITY OF PINE LAKE"
black and white [1:22,200]

LEGEND

1. Wet meadow—*Carex* spp.
2. Prairie—*Calamagrostis*, *Agropyron*, *Koeleria*, etc.
3. Muskeg and prairie shrubs—*Betula glandulosa*, *Salix* spp.
4. Undifferentiated coniferous timber
5. Mixed timber—predominantly *Populus tremuloides*

RAUP, HUGH M.

1935 "Botanical investigations in Wood Buffalo Park." *Natl. Mus. Canada, Bull.* no. 74 (Biol. Ser. no. 20), facing p. 28.

[1930] "MAP OF VEGETATION IN THE GOVERNMENT HAY CAMP DISTRICT, SLAVE RIVER"

black and white

[1:18,700]

LEGEND

1. Meadow—*Carex trichocarpa* var. *aristida*
2. Pond shore marsh
3. Low river bank vegetation—*Equisetum limosum*-*E. palustre*
4. Cleared hay meadow
5. Slough and delta willows—*Salix planifolia*—etc.
6. River bank willows—*Salix interior* var. *pedicellata*
7. Lowland mixed timber—*Picea glauca*-*Populus tacamahacca*
8. Spruce timber—predominantly *Picea glauca*
9. Upland mixed timber—*Picea glauca*-*Populus tremuloides*
10. Scrub timber on granite hills—*Pinus banksiana*-*Picea glauca*-*Betula payrifera*

RAUP, HUGH M.

1935 "Botanical investigations in Wood Buffalo Park." *Natl. Mus. Canada, Bull.* no. 74 (Biol. Ser. no. 20), facing p. 78.

[1930] "MAP OF VEGETATION IN THE 30TH BASELINE DISTRICT, SLAVE RIVER"

black and white

[1:18,200]

LEGEND

1. Meadow—*Carex trichocarpa* var. *aristida*
2. Pond share marsh
3. Low river bank vegetation—*Equisetum limosum*-*E. palustre*
4. Cleared hay meadow
5. Slough and delta willows—*Salix planifolia*—etc.
6. River bank willows—*Salix interior* var. *pedicellata*
7. Lowland mixed timber—*Picea glauca*-*Populus tacamahacca*
8. Spruce timber—predominantly *Picea glauca*

RAUP, HUGH M.

1935 "Botanical investigations in Wood Buffalo Park." *Natl. Mus. Canada, Bull.* no. 74 (Biol. Ser. no. 20), facing p. 78.

[1930] "MAP OF SEMI-OPFN VEGETATION NEAR HEART (RAUP) LAKE"

black and white

[1:3,200]

LEGEND

1. Prairie—*Calamagrostis*, *Agropyron*, *Koeleria*, etc.
2. Muskeg and prairie shrubs—*Betula glandulosa*, *Salix* spp.
3. Undifferentiated coniferous timber

ALBERTA

RAUP, HUGH M.

1935 "Botanical investigations in Wood Buffalo Park." *Natl. Mus. Canada, Bull.* no. 74 (Biol. Ser. no. 20), facing p. 54.

- [1930] "VEGETATION OF A SINK-HOLE AREA, 16 MILES EAST OF MOOSE (EIGHT) LAKE"
black and white [1:960]

LEGEND

- | | |
|---------------------------------------|-------------------------|
| 1. <i>Pinus banksiana</i> —open woods | 4. Wet meadow or slough |
| 2. <i>Populus tremuloides</i> | 5. Sink-hole vegetation |
| 3. <i>Picea mariana</i> —swamp forest | |

RAUP, HUGH M.

1935 "Botanical investigations in Wood Buffalo Park." *Natl. Mus. Canada, Bull.* no. 74 (Biol. Ser. no. 20), p. 59.

- [1932] "MAP OF SOUTHERN AND CENTRAL ALBERTA, SHOWING THE CHIEF TYPES OF VEGETATION AND SOILS"
black and white [1:4,250,000]

LEGEND

- | | |
|-----------------------|---------------------|
| 1. Northern forest | 4. Parkland |
| 2. Cordilleran forest | 5. Northern prairie |
| 3. Poplar area | 6. Southern prairie |

MOSS, E. H.

1932 "The vegetation of Alberta, part IV. The poplar association and related vegetation of central Alberta." *Journal of Ecology*, vol. 20, p. 382.

- [1947] "MAP OF ALBERTA, SHOWING CLIMAX FORMATIONS, TRANSITION ZONES, GLACIAL MORAINES, AND LOCATION OF BOGS"
black and white [1:9,500,000]

LEGEND

- | | |
|-----------------------|---------------------|
| 1. Boreal forest | 5. Northern prairie |
| 2. Cordilleran forest | 6. Southern prairie |
| 3. Poplar area | 7. Bogs |
| 4. Parkland | |
- Vegetation boundaries from Lewis [1928] and Moss [1932]

HANSEN, HENRY P.

1949 "Postglacial forests in south central Alberta, Canada." *American Journal of Botany*, vol. 36, p. 55.

- [1947] "TRAP SITES OF THE MAIN SLOUGH [LATITUDE 58° 15' N., LONGITUDE 111° 30' W.]"
black and white [1:5,000]

LEGEND

- | | |
|--------------------------|--------------------------------------|
| 1. Emergent <i>Typha</i> | 2. <i>Equisetum</i> & <i>Scirpus</i> |
|--------------------------|--------------------------------------|

- | | |
|---------------------------|------------------------------|
| 3. Floating <i>Nuphar</i> | 6. Willow-alder (low ground) |
| 4. Muskeg | 7. Open water |
| 5. White spruce | |

FULLER, W. A.

1951 *Natural history and economic importance of the muskrat in the Athabasca-Peace Delta, Wood Buffalo Park*. Canada Dept. Resources and Development, National Parks Branch, Canadian Wildlife Serv., Wildlife Management Bull., series 1, no. 2, p. 94.

- [1952] "MAP OF ALBERTA TO N 56° 15' SHOWING THE EXTENT OF MIXED PRAIRIE EAST OF THE BOLD LINE"
black and white [1:10,100,000]

LEGEND

1. [Mixed prairie]

HOBBS, G. A. and C. E. LILLY

1954 "Ecology of species *Megachile latreille* in the mixed prairie region of southern Alberta with special reference to pollination of alfalfa." *Ecology*, vol. 35, p. 454.

- [1952] "SOIL MAP OF SOUTHERN ALBERTA (GENERALIZED)"
black and white [1:5,350,000]

LEGEND

1. Short-grass prairie
2. Grasslands with "bluffs" of trees where moisture is favorable
3. Grassland with woodlands (parkland)
4. Woodland
5. Mixed deciduous and evergreen woodland with peat and muskeg

VAN CLEEF, EUGENE

1952 "Finnish settlement in Canada." *Geographical Review*, vol. 42, p. 255.

- [1955] "OUTLINE MAP OF THE PROVINCE OF ALBERTA, SHOWING THE MAIN PHYTOGEOGRAPHIC REGIONS"
black and white [1:7,700,000]

LEGEND

- | | |
|----------------------------------|---------------------|
| 1. Boreal forest | 5. Alpine region |
| 2. Boreal-Cordilleran transition | 6. Parkland prairie |
| 3. Subalpine forest | 7. Mixed prairie |
| 4. Montane forest | |

MOSS, E. H.

1955 "The vegetation of Alberta." *Botanical Review*, vol. 21, p. 503.

- [1956] "PROVINCE OF ALBERTA, SHOWING LODGEPOLE PINE, PHYTOGEOGRAPHIC DIVISIONS AND AREAS SAMPLED"
black and white [1:5,700,000]

LEGEND

- | | |
|-----------------------|----------------------------|
| 1. Boreal forest | c. High foothills division |
| 2. [Lodgepole pine] | d. Low foothills division |
| a. Montane division | 3. Aspen grove belt |
| b. Subalpine division | 4. Grass land |

HORTON, K. W.

1956 *The ecology of lodgepole pine in Alberta and its role in forest succession*. Canada Dept. Northern Affairs and Natl. Resources, Forest Res. Div., Tech. Note no. 45, p. 7.

BRITISH COLUMBIA

1917 "CLIMATIC FOREST TYPES OF BRITISH COLUMBIA"
green, red, and white [1:1,900,000]

LEGEND

1. Douglas fir types
 - a. Douglas fir-western red cedar type (coast)
 - b. Douglas fir or lodgepole pine fire type (interior plateau)
 - c. Douglas fir-western larch, or lodgepole pine fire, type (in S. W. portion of province only)
2. Western red cedar types
 - a. Western red cedar-western hemlock type
 - b. Western red cedar-Engelmann spruce type
 - c. Western red cedar-Sitka spruce type
3. Western hemlock types
 - a. Western hemlock-alpine fir, or amabilis fir, type
 - b. Western hemlock-Engelmann spruce, or Sitka spruce, type
4. Spruce types
 - a. Engelmann spruce-alpine fir, or lodgepole pine fire, type
 - b. White spruce-alpine fir, or lodgepole pine fire, type
5. Western yellow pine type
6. Grass, sage, brush, or open forest, types
7. Land not suitable for production of forests of commercial value
8. Marshland

WHITFORD, H. N. and ROLAND D. CRAIG

1918 *Forests of British Columbia*. Ottawa, Comm. Conserv. Canada, inserted at back.

[1918] "[FOREST TYPES OF BRITISH COLUMBIA IN 6 MAPS]"
red, black, and white [1:6,400,000]

LEGEND

1. Douglas fir types [facing p. 56]
 - a. Douglas fir type, in Interior Forest
 - b. Douglas fir-red cedar type, in Coast Forest
 - c. Douglas fir-western larch type
2. Western red cedar types [preceding p. 61]
 - a. Western red cedar-western hemlock type, Interior Forest
 - b. Western red cedar-Engelmann spruce type, Interior Forest
 - c. Western red cedar-western hemlock type, Coast Forest
3. Hemlock-spruce types [facing p. 62]
 - a. Western hemlock-Sitka spruce type, Interior Forest
 - b. Western hemlock-Engelmann spruce type, Interior Forest
 - c. Western hemlock-Sitka spruce type, Coast Forest
4. Hemlock-balsam type [preceding p. 63]

BRITISH COLUMBIA

- a. Western hemlock-amabilis fir type, Interior Forest
- b. Western hemlock-alpine fir type, Interior Forest
- c. Western hemlock-balsam type, Coast forest
- 5. Yellow pine type [facing p. 65]
- 6. Spruce types [facing p. 74]
 - a. Engelmann spruce-alpine fir type or lodgepole pine type
 - b. White spruce-alpine fir type

WHITFORD, H. N. and ROLAND D. CRAIG

1918 *Forests of British Columbia*. Ottawa, Commis. Conserv. Canada.

1926 "GRASSLAND OF BRITISH COLUMBIA"

black and white

1:6,500,000

LEGEND

- 1. Open grasslands
- 2. Wooded grasslands with western yellow pine
- 3. Wooded grasslands with jack pine
- 4. Wooded grasslands with poplars and willows
- 5. Wooded grasslands with Douglas fir
- 6. Wooded grasslands with oak

HUTCHINSON, A. H.

1926 "British Columbia, Original Biota. Grasslands," in Victor E. Shelford (ed.) *Naturalist's Guide to the Americas*. Baltimore, The Williams and Wilkins Company. Facing p. 150.

[1927] "SKETCH OF THE DISTRIBUTION OF PLANT SOCIATIONS OF TYEE BOG [VANCOUVER ISLAND]"

black and white

[incalculable]

LEGEND

- | | |
|---|---------------------------------|
| 1. <i>Menyanthes</i> pool with
<i>Nymphaea</i> | 4. <i>Ledum</i> societies |
| 2. <i>Oxycoccus-Sphagnum</i> -soc. | 5. <i>Myrica</i> |
| 3. <i>Nymphaea</i> hollows | 6. Deciduous thicket vegetation |
| | 7. Coniferous forest |

OSVALD, HUGO

1933 "Vegetation of the Pacific coast bogs of North America." *Acta Phytographica Suecica*, vol. 5, p. 23.

1942 "WHITE SPRUCE, ASPEN, AND LODGEPOLE PINE ON TERRACES AND UPLAND BORDERING LIARD RIVER JUST NORTHWEST OF COAL RIVER"

black and white

[1:20,000]

LEGEND

- | | |
|--------------------------|-----------------------|
| 1. Aspen | 6. Black spruce |
| 2. Small aspen | 7. White spruce |
| 3. Grass and sedge marsh | 8. Small white spruce |
| 4. Lodgepole pine | 9. Balsam poplar |
| 5. Small pine | 10. Willows |

Each map item is characterized by from one to three of the symbols for the

legend items. For map units of more than one species the dominant species is placed first in the symbol combination

RAUP, HUGH M. and CHARLES S. DENNY

1950 *Photo interpretation of the terrain along the southern part of the Alaska Highway*. U. S. Geol. Surv., Bull. no. 963-D, pl. 11 in pocket.

1942 "FORESTS ON FLOOD PLAIN AND TERRACES ADJOINING LIARD RIVER NEAR LOWER POST"

black and white [1:16,600]

LEGEND

- | | |
|-------------------|--------------------------|
| 1. Aspen | 5. Black spruce |
| 2. Small aspen | 6. White spruce |
| 3. Lodgepole pine | 7. Balsam poplar |
| 4. Small pine | 8. Willows (flood-plain) |

Each map unit is characterized by from one to three of the symbols for the legend items. For map units of more than one species the dominant species is placed first in the symbol combination

RAUP, HUGH M. and CHARLES S. DENNY

1950 *Photo interpretation of the terrain along the southern part of the Alaska Highway*. U. S. Geol. Surv., Bull. no. 963-D, pl. 10 in pocket.

1942 "FORESTS ON UPLANDS, WITH HEAVY CLAY SOILS, EAST OF ROCKY MOUNTAINS; ALONG RASPBERRY CREEK ABOUT 35 MILES WEST OF FORT NELSON"

black and white [1:16,000]

LEGEND

- | | |
|-----------------|-----------------------|
| 1. Aspen | 5. Small black spruce |
| 2. Small aspen | 6. White spruce |
| 3. Dwarf birch | 7. Small white spruce |
| 4. Black spruce | 8. Balsam poplar |

Each map unit is characterized by one or a combination of two of the legend items. For map units of two species the dominant species is placed first in the symbol combination

RAUP, HUGH M. and CHARLES S. DENNY

1950 *Photo interpretation of the terrain along the southern part of the Alaska Highway*. U. S. Geol. Surv., Bull. no. 963-D, pl. 13 in pocket.

1942 "FOREST AND ALPINE TUNDRA IN MOUNTAINS NEAR SUMMIT LAKE"

black and white [1:13,800]

LEGEND

- | | |
|-------------------|-----------------|
| 1. Dwarf birch | 4. Small pine |
| 2. Alpine tundra | 5. White spruce |
| 3. Lodgepole pine | |

Map units are characterized by one or a combination of two of the legend

items. For map units of two species the dominant species is placed first in the symbol combination

RAUP, HUGH M. and CHARLES S. DENNY

1950 *Photo interpretation of the terrain along the southern part of the Alaska Highway*. U. S. Geol. Surv., Bull. no. 963-D, pl. 12 in pocket.

[1944] "GENERALIZED MAP OF TERRAIN AND VEGETATION IN BEATTON RIVER VALLEY"

black and white

[1:19,800]

LEGEND

- A. Plateau remnants and adjacent steep slopes
 - 1. Mixed forest of black spruce, lodgepole pine, white spruce, aspen, and a very little alpine fir
- B. Level to gently sloping plains between inner trench of Beatton River and base of steep slopes adjacent to plateau remnants
 - 2. Dwarf-birch and willow scrub with scattered patches of trees
 - 3. Grassland separated by willow bush and few scattered aspen thickets
 - 4. Muskeg. Mossy swamps, commonly around small ponds. Muskeg forests of black spruce and larch in places
 - 5. Mixture of muskeg and mixed forest of plateau remnants and steep slopes. Muskeg on level to gently sloping plains with low knolls on which are lodgepole pine, aspen, and white spruce
- C. Steep slopes on sides of Beatton River trench and adjacent edge of level to gently sloping plains
 - 6. Lodgepole pine and aspen with mixtures of white and black spruce in a few places
- D. Flood plain and low terraces
 - 7. Willows on flood plain. White spruce and balsam poplar on natural levees. Willow and dwarf-birch scrub or aspen and lodgepole-pine groves on low terraces

RAUP, HUGH M. and CHARLES S. DENNY

1950 *Photo interpretation of the terrain along the southern part of the Alaska Highway*. U. S. Geol. Surv., Bull. no. 963-D, in pocket.

1944 "MAP OF VEGETATION TYPES IN A PART OF THE BEATTON VALLEY"

black and white

[1:13,500]

LEGEND

- 1. Aspen, lodgepole pine, and willows in various mixtures
- 2. Lodgepole pine, black spruce, and aspen in various mixtures
- 3. White spruce and lodgepole pine in various mixtures. Balsam poplar associated with white spruce on flood plains
- 4. Black spruce, willows, and dwarf birch in various mixtures
- 5. Dwarf birch, willows, small lodgepole pine, and white spruce in various mixtures
- 6. Willows
- 7. Marsh
- 8. Willows, aspen, and scattered grassland in various mixtures

RAUP, HUGH M. and CHARLES S. DENNY

1950 *Photo interpretation of the terrain along the southern part of*

the Alaska Highway. U. S. Geol. Surv., Bull. no. 963-D, pl. 16, in pocket.

- 1945 "DIE KLIMATISCH BEDINGTEN DOMINANZGEBIETE DER HAUPTHOLZARTEN IN BRITISCH COLUMBIEN"

black and white

1:8,000,000

LEGEND

1. Waldlose Grasfluren
2. *Pinus ponderosa*
3. *Larix occidentalis*
4. *Pseudotsuga taxifolia*
5. *Thuja plicata*

6. *Picea Engelmannii*-*P. canadensis*-*Pinus contorta murrayana*
7. *Tsuga*
8. *Abies*-Bestände dominierend
9. Alpine Gebiete

KUJALA, VILJO

1945 "Waldvegetationsuntersuchungen in Kanada mit besonderer Berücksichtigung der Anbaumöglichkeiten kanadischer Holzarten auf natürlichen Waldböden in Finnland." *Annals of the Finnish Academy of Sciences*, Series A, vol. 4, no. 7, p. 163.

- [1947] "SKETCH MAP OF THE SOUTHERN INTERIOR REGION OF BRITISH COLUMBIA, SHOWING THE GRASSLAND AREAS"

black and white

[1:3,900,000]

LEGEND

1. Grassland areas

TISDALE, E. W.

1947 "The grasslands of the southern interior of British Columbia." *Ecology*, vol. 28, p. 348.

- [1951] "VEGETATION REGIONS OF BRITISH COLUMBIA"

black and white

[1:15,000,000]

LEGEND

1. Coast forest
2. Fraser plateau-forest and grassland

3. Nechako forest
4. Columbia forest
5. Grasslands (after Tisdale)

KERR, DONALD P.

1952 "British Columbia, physical background." In Putnam, Donald F. (ed.), *Canadian regions, a geography of Canada*. Toronto, J. M. Dent and Sons (Canada) Ltd., p. 432.

- [1956] "BRITISH COLUMBIA BIOTIC REGIONS"

in color

[1:3,500,000]

LEGEND

1. Alpine-arctic
2. Boreal forest

3. Subalpine forest
4. Coast forest

BRITISH COLUMBIA

- | | |
|------------------------|--------------------------|
| 5. Columbia forest | 9. Peace River parklands |
| 6. Dry forest | 10. Cariboo parklands |
| 7. Puget Sound lowland | 11. Osoyoos arid |
| 8. Gulf islands | 12. Prairie grasslands |

DEPARTMENTS OF BOTANY AND ZOOLOGY, UNIVERSITY OF BRITISH COLUMBIA
1956 In Chapman, J. D., and D. B. Turner (eds.), *British Columbia atlas of resources*. Vancouver, British Columbia Natural Resources Conference, p. 24.

FRANKLIN AND NORTHWEST TERRITORIES

[1930] "MAP OF THE VICINITY OF BOWMAN BAY"
black and white 1:538,000

LEGEND

- | | |
|-------------------|---|
| 1. Grassy uplands | 3. Great western tundra |
| 2. Grassy plain | 4. Marshy tundra with innumerable ponds |

SOPER, J. DEWEY

1930 "Exploration in Foxe Peninsula and along the west coast of Baffin Island." *Geographical Review*, vol. 20, p. 419.

[1954] "VEGETATION [OF THE STUDY AREA NEAR AKTINEQ]"
black and white [1:1000]

LEGEND

- | | |
|-------------------|--------------|
| 1. Barren | 3. Wet mossy |
| 2. Dry mat plants | |

DRURY, WILLIAM H., JR.

1962 *Patterned ground and vegetation on southern Bylot Island, Northwestern Territories, Canada*. Contrib. Gray Herbarium Harvard Univ., no. 190, p. 69.

[1955] "VEGETATION MAP [OF THE ANDERSON RIVER MAP-AREA, NORTHWEST TERRITORIES]"
black and white [1:2,200,000]

LEGEND

- | | |
|------------------------------|--------------------|
| 1. Tundra | 3. Woodland-tundra |
| 2. Scrub willow-ground birch | 4. Open woodland |

MACKAY, J. ROSS

1958 *The Anderson River map-area, N. W. T. Canada*, Dept. Mines and Tech. Surv., Geogr. Branch, Mem. no. 5, p. 99.

1963 "VEGETATION MAP OF THE WESTERN PART OF THE ASTRO RIDGE"
black and white 1:20,000

LEGEND

1. Herb meadow (*Arnica alpina*, *Erigeron eriocephalus*, *Oxyria digyna*)
2. Mesic heath (*Cassiope tetragona*, *Trisetum spicatum*, *Potentilla hyparctica*)
3. Dry-mesic heath (*Dryas integrifolia*, *Poa arctica*, *Thamnotia vermicularis*)
4. Upper dry steppe (*Carex nardina*, *Potentilla vahliana*, *Saxifraga tricuspidata*)

5. Barren heath (*Salix arctica*, *Saxifraga oppositifolia*, *Draba alpina*)
5. Barren heath (*Salix arctica*, *Saxifraga oppositifolia*, *Draba alpina*)
6. Open pioneer vegetation of lower altitudes (same as 5) on younger and less stable material with a cover below 1%
7. Wet sward of intermediate altitude (*Cerastium regelii*, *Colpodium vahli-
anum*, *Melandrium apetalum*, *Ranunculus sabinei*)
8. Mesic meadow (*Alopecurus alpinus*, *Poa alpigena* var. *colpodea*, *Taraxacum
arctogenum*)
9. Upper steppe (*Luzula confusa*, *Luzula nivalis*, *Dactylina ramulosa*)
10. Fellfield (*Papaver dahlianum*, *Saxifraga caespitosa*, *Cerastium arcticum*)
11. Open fellfield (same as 10) on younger and less stable material than 10 with
a cover below 1%
12. Old lichen crusts (*Rhizocarpon rittoøkense*, *R. superficiale*, *R. tinei*)
 0. Bare ground, mostly active talus slopes practically without plants

BESCHEL, R. E.

1963 in Müller, F., "An arctic research expedition and its reliance on large-scale maps." *The Canadian Surveyor*, vol. 17, p. 102-3.

MANITOBA

1877 "TOWNSHIP 24, RANGE 4 EAST (MANITOBA)"
 black and white 1:88,100

LEGEND

- | | |
|---------------------------|-----------------|
| 1. Marsh or scrubby marsh | 3. Dry woodland |
| 2. West woodland | |

VANDERHILL, BURKE G. and DAVID E. CHRISTENSEN

1963 "The settlement of New Iceland." *Annals of the Association of American Geographers*, vol. 53, p. 358.

[1926] "VEGETATION MAP OF THE AREA SELECTED FOR ECOLOGICAL STUDY, BASED ON THE SECTIONAL MAP OF MANITOBA, SHEETS 72 AND 22"
 black and white [1:141,000]

LEGEND

- | | |
|-------------------|---------------------------------|
| 1. Cottonwood | 8. Willow |
| 2. Elm, ash | 9. Dry sandy prairie |
| 3. Maple, ash | 10. Drifting sands |
| 4. Oak, saskatoon | 11. Sand blowouts |
| 5. White poplar | 12. Sand hills partly overgrown |
| 6. White spruce | 13. Cultivated fields |
| 7. Tamarack | |

BIRD, RALPH D.

1927 "A preliminary ecological survey of the district surrounding the entomological station at Treesbank, Manitoba." *Ecology*, vol. 8, p. 208.

[1929] "FLORA ZONES OF MANITOBA"
 black and white [1:9,200,000]

LEGEND

1. Northern coniferous, spruce-pine-granite area. Altitude average 400 ft.
2. Mixed woods, poplar-birch-spruce-tamarac and willow area. Altitude average 800 ft.
3. Mixed prairie, transitional zone of poplars and open prairie, of tall grasses and sedges and willow-dogwood thickets. Altitude average 1,000 ft.
4. Short-grass plains, treeless prairie or s. g. p., with legume and composite perennials. Altitude average 1,500 ft.

JACKSON, V. W.

1929 *In* Bisby, G. R., A. H. Reginald Buller, and John Dearness, *The fungi of Manitoba*. New York, Longmans, Green and Co., facing p. 1.

- [1934] "MAP OF MANITOBA SHOWING VEGETATIVE BELTS"
 in color [1:7,100,000]

LEGEND

- | | |
|----------------------|------------------------|
| 1. Grassland | 5. Northern coniferous |
| 2. Aspen grove | 6. Northern transition |
| 3. Mixedwood | 7. Arctic tundra |
| 4. Manitoba lowlands | |

HARRISON, J. D. B.

1934 *The forests of Manitoba*. Canada Dept. Interior, Forest Serv., Bull. no. 85, facing p. 19.

- [1938] "VEGETATION REGIONS IN MANITOBA"
 black and white [1:2,000,000]

LEGEND

- | | |
|---|--------------------------------|
| A. Grassland | 4. Great Lakes section |
| 1. Southwest plains | C. Boreal forest |
| 2. Red River Valley prairie | 5. English River section |
| 3. [Prairie groves] | 6. Manitoba Lowlands section |
| a. Prairie-aspen-oak | 7. Mixedwoods section |
| b. Prairie-aspen | 8. Nelson River section |
| B. Lakes forest | 9. Northern coniferous section |
| Adapted from map of Canada by Halliday (1937) | |

ELLIS, J. H.

1938 *The soils of Manitoba*. Winnipeg, Manitoba Econ. Surv. Board, Rept. no. 15, facing p. 32.

- [1954] "FORT CHURCHILL TEST AREA, VEGETATION"
 in color [1:181,000]

LEGEND

- | | |
|------------------------------|-----------|
| 1. Forest | 3. Strand |
| 2. Tundra and treeless marsh | |

DE PERCIN, FERNAND, LESLIE W. WHITE and ENVIRONMENTAL RESEARCH BUREAU
 1954 *Handbook of Fort Churchill environment*. Natick, Massachusetts, U. S. Army, Headquarters Quartermaster Res. and Develop. Command. Tech. Rept. no. EP-4, p. 15.

- [1955] "[A VEGETATION MAP FROM THE SOUTHERN SPRUCE FOREST ZONE OF
 MANITOBA]"
 black and white [1:34,600]

LEGEND

- | | |
|---|------------------------------------|
| 1. Closed black spruce forest | 7. Open pine forest on outcrop |
| 2. Closed mixed spruce-birch forest | 8. Mature birchwood on peat ridges |
| 3. Open pine forest (seral) | 9. Muskeg |
| 4. Open pine forest with spruce (seral) | 10. Open bog |
| 5. Young birch-willow scrub | 11. Aquatic vegetation |
| 6. Closed pine forest on sand | |

RITCHIE, JAMES C.

1958 "A vegetation map from the southern spruce forest zone of Manitoba." *Geographical Bulletin*, no. 12, facing p. 39.

[1956] "VEGETATION MAP OF THE PAS AREA"

black and white

[1:87,400]

LEGEND

- | | |
|---|--|
| 1. Settlement | 8. Deciduous forest over 25 feet tall |
| 2. Associated non-agricultural areas | 9. Muskeg coniferous forest |
| 3. Cultivated | 10. Coniferous forest over 25 feet tall |
| 4. Short grasses | 11. Mixed forest, trees about 25 feet tall |
| 5. Tall grasses | 12. Mixed forest, trees over 25 feet tall |
| 6. Tall grasses and shrubs or low deciduous trees | 13. Cut over |
| 7. Deciduous forest under 25 feet tall | |

SIM, VICTOR M.

1956 "The Pas, Manitoba." *Geographical Bulletin* no. 8, p. 6.

[1957] "AN OUTLINE MAP OF THE IMMEDIATE PRECINCTS OF THE EAST SIDE OF THE ESTUARY OF THE CHURCHILL RIVER, SHOWING THE APPROXIMATE BOUNDARIES OF THE ZONES OF VEGETATION . . ."

black and white

[1:122,000]

LEGEND

- | | |
|--|------------------------------------|
| 1. Area of 'high' and 'low' tundra (disturbed) | 5. Invading forest |
| 2. Disturbed area | 6. White spruce forest |
| 3. Meadow zone | 7. Mixed forest (mound topography) |
| 4. Shrub zone | |

RITCHIE, JAMES C.

1957 "The vegetation of northern Manitoba, II. A prisiere on the Hudson Bay Lowlands." *Ecology*, vol. 38, p. 430.

[1957] "A VEGETATION MAP OF THE CARIBOU LAKE AREA"

black and white

1:120,000

LEGEND

1. Areas of black spruce forest, predominantly moss muskeg on peat, but locally of scrub forest on moraine
2. A complex of moss muskeg and white spruce and shrub communities on alluvial deposits
3. Heath tundra and areas of dwarf birch and willow scrub on upland sites of moraine
4. Heath or sedge-cottongrass tundra on deep peat deposits
5. Wet sedge-cottongrass bog on shallow, poorly drained peats
6. Areas of more or less bare sand or gravel
7. Areas of outcropping bedrock

RITCHIE, JAMES C.

1960 "The vegetation of northern Manitoba. IV. The Caribou Lake region." *Canadian Journal of Botany*, vol. 38, p. 198.

[1958] "MAP OF MANITOBA"
 black and white [1:13,600,000]

LEGEND

- | | |
|------------------|---------------------------|
| 1. Tundra | 3. Subarctic forest |
| 2. Forest tundra | 4. Southern spruce forest |

RITCHIE, JAMES C.

1959 *The vegetation of northern Manitoba. III. Studies in the Subarctic.* Arctic Inst. North America, Tech. Paper no. 3, p. 6.

[1958] "MAP SHOWING THE VEGETATION ZONES OF MANITOBA NORTH OF THE 56TH PARALLEL"
 black and white [1:3,300,000]

LEGEND

- | | |
|-----------------------------|------------------------|
| A. Canadian Shield | B. Hudson Bay Lowlands |
| 1. Tundra | 5. Transitional |
| 2. Forest tundra | 6. Moss muskeg |
| 3. Open coniferous forest | 7. Treeless bog |
| 4. Closed coniferous forest | 8. Lowland complex |

RITCHIE, JAMES C.

1960 "The vegetation of northern Manitoba. V. Establishing the major zonation." *Arctic*, vol. 13, p. [210].

[1959] "A VEGETATION MAP OF THE AREA OF STUDY"
 black and white 1:250,000

LEGEND

- | | |
|------------------------|-------------------------|
| 1. White spruce forest | 6. Lichen muskeg |
| 2. Poplar forest | 7. Moss muskeg |
| 3. Shrub on alluvium | 8. Palsa and string bog |
| 4. Marsh | 9. Larch fen |
| 5. Shrub on peat | 10. Shrub fen |

RITCHIE, JAMES C.

1960 "The vegetation of northern Manitoba. VI. The lower Hayes River region." *Canadian Journal of Botany*, vol. 38, facing p. 772.

[1960] "MAP OF MANITOBA SHOWING VEGETATION BELTS"
 in color [1:6,300,000]

LEGEND

- | | |
|----------------------|---------------------------|
| 1. Grassland | 6. Mixed wood upland |
| 2. Aspen grove | 7. Nelson River clay belt |
| 3. Hardwood | 8. Northern coniferous |
| 4. Southeastern | 9. Northern transition |
| 5. Manitoba lowlands | 10. Tundra |

GILL, C. B.

1960 *The forests of Manitoba.* Winnipeg, Dept. Mines and Nat. Resources, Forest Resources Inventory, Rept. no. 10, p. 13.

NEW BRUNSWICK

- [1896] "MAP OF SEELY'S COVE BOG"
black and white [1:8,300]

LEGEND

- | | |
|-------------------------------|----------------------|
| 1. Trees | 5. Wet bog |
| 2. Shrubs | 6. Stream and meadow |
| 3. <i>Sphagnum - Empetrum</i> | 7. Flat bog |
| 4. <i>Sphagnum - Carex</i> | |

GANONG, W. F.

1897 "Upon raised peat-bogs in the Province of New Brunswick."
Trans. Royal Soc. Canada, Second Series, vol. 3, Sec. 4, p. 144.

- [1896] "MAP OF THE LEPREAU BOG [AT LITTLE LEPREAU]"
black and white [1:7,000]

LEGEND

- | | |
|-----------------------------|--------------------------|
| 1. Trees | 4. <i>Sphagnum-Carex</i> |
| 2. Shrubs, etc. | 5. Wet bog |
| 3. <i>Sphagnum-Empetrum</i> | 6. Meadow |

GANONG, W. F.

1897 "Upon raised peat-bogs in the Province of New Brunswick."
Trans. Royal Soc. Canada, Second Series, vol. 3, sect. 4, p. 143.

- 1906 "GRANDE PLAINE, MISCOU ISLAND, NEW BRUNSWICK"
black and white 1:39,600

LEGEND

- | | |
|----------------|----------|
| 1. Grass plain | 3. Woods |
| 2. Swale zone | 4. Bog |

GANONG, W. F.

1906 "The Nascent Forest of the Miscou Beach Plain," *Botanical Gazette*, vol. 42, no. 2, p. 83.

NEWFOUNDLAND

- [1923] "NEWFOUNDLAND"
 green, black, and white [1:15,800,000]

LEGEND

1. Northern coniferous forest spruce fir

ZON, RAPHAEL and WILLIAM N. SPARHAWK

1923 *Forest resources of the world*. New York, McGraw-Hill Book Co., Inc., vol. 2, facing p. 496, inset.

- 1941 "EAST LABRADOR (THE NEWFOUNDLAND PART) FROM 57° N. LAT. NORTHWARD AND FROM 67° W. LONG. EASTWARD"
 black and white 1:8,000,000

LEGEND

1. Barren land, tundra, high mountains
2. Conifers, partly as bushes only, forest without noteworthy economic value
3. Coniferous high forest area of economic value (incl. swampy land and scattered barren spots)

TANNER, V.

1944 "Newfoundland—Labrador." *Acta Geographica* (Helsinki), vol. 8, no. 1, p. 330.

- [1948] "NEWFOUNDLAND, GENERAL LOCATION OF BARREN LAND"
 black and white [1:4,800,000]

LEGEND

1. Main areas of moss-barren

GUTSELL, B. V.

1949 *An introduction to the geography of Newfoundland*. Canada Dept. Mines and Resources, Geogr. Bur., Information Ser. no. 1, p. 29. (Reprinted, 1952 [1:12,672,000], in Putnam, Donald F. (ed.), *Canadian Regions, A Geography of Canada*. Toronto, J. M. Dent and Sons (Canada), Ltd., p. 48.)

- [1951] "FOREST INVENTORY, AVALON PENINSULA, NEWFOUNDLAND, St. JOHNS, IN/10"
 black and white [1:63,400]

LEGEND

- | | |
|-----------------------|--|
| 1. Softwood | 7. Brushland |
| 2. Softwood-hardwood | 8. Heath |
| 3. Hardwood-softwood | 9. Rock |
| 4. Hardwood | 10. Marsh, bog, or open muskeg |
| 5. Recent clear cut | 11. Sand |
| 6. Recent partial cut | 12. Agricultural and other open improved lands |

Also indicates height of stand and canopy density

CANADA. *Department of the Interior. Forestry Branch*

1956 *In Wilton, W. C., Forest resources of the Avalon Peninsula, Newfoundland.* Canada, Dept. Northern Affairs and Natl. Resources, Forest Res. Div., Tech. Note no. 50, following p. 24.

1954 "VEGETATION TYPES IN THE CARTER BASIN AREA OF THE LAKE MELVILLE LOWLANDS"
black and white 1:126,000

LEGEND

- | | |
|---------------------------------|----------------------------|
| 1. Coniferous or mixed forest | 5. Bog, chiefly string bog |
| 2. Lichen woodland (coniferous) | 6. Sand (no cover) |
| 3. Alder and willow thickets | 7. Open water |
| 4. Muskeg | |

GADBOIS, PIERRE and I. A. McKAY

1954 *A Vegetation Map of the Carter Basin Area, Lake Melville Lowlands, Newfoundland.* Geographical Bull. vol. 5. Ottawa, Geogr. Branch, Dept of Mines and Technical Surveys.

[1956] "REFERENCE MAP AVALON PENINSULA"
black and white [1:1,100,000]

LEGEND

- | | |
|--------------|--------------------|
| 1. Heath | 3. Softwood, small |
| 2. Mixedwood | 4. Softwood, large |

WILTON, W. C.

1956 *Forest resources of the Avalon Peninsula, Newfoundland.* Canada, Dept. Northern Affairs and Natl. Resources, Forest Res. Div., Tech. Note no. 50, p. 2.

NOVA SCOTIA

1748 "[MINAS BASIN, NOVA SCOTIA]"
 black and white [1:1,000,000]

LEGEND

1. Marshland

BIRD, J. BRIAN

1955 "Settlement patterns in Maritime Canada." *Geographical Review*, vol. 45, p. 388.

1748 "[PORT ROYAL, NOVA SCOTIA]"
 black and white [1:679,000]

LEGEND

1. Marshland

BIRD, J. BRIAN

1955 "Settlement patterns in Maritime Canada." *Geographical Review*, vol. 45, p. 388.

[1912] "FOREST DISTRIBUTION IN NOVA SCOTIA" [ON FOUR SHEETS:] YARMOUTH SHEET: DIGBY, YARMOUTH AND PORTIONS OF ANNAPOLIS, QUEENS AND SHELburne, COUNTIES. HALIFAX SHEET: KINGS AND LUNENBURG, AND PORTIONS OF SHELburne, QUEENS, ANNAPOLIS, HANTS AND HALIFAX, COUNTIES. TRURO SHEET: PIC TOU AND PORTIONS OF ANTIGONISH, GUYSBOROUGH, HALIFAX, COLCHESTER, CUMBERLAND AND HANTS COUNTIES. CAPE BRETON SHEET: INVERNESS, VICTORIA, CAPE BRETON AND RICHMOND AND PORTIONS OF ANTIGONISH AND GUYSBOROUGH COUNTIES.
 in color 1:250,000

LEGEND

1. Hardwood

2. Mixed

3. Coniferous

4. Barrens

5. Fires

6. Farms

7. Young growth

Forested areas are subtyped: virgin, medium cull, severely culled, or second growth

FERNOW, B. E., C. D. HOWE and J. H. WHITE

1912 *Forest conditions of Nova Scotia*. Ottawa, Canada, Commission of Conservation, in pocket.

- [1916] "NORTHERN CAPE BRETON ISLAND"
black and white [1:750,000]

LEGEND

- | | |
|-----------------------|------------|
| 1. Deciduous forests | 3. Barrens |
| 2. Coniferous forests | |

NICHOLS, GEORGE E.

1918 "The vegetation of northern Cape Breton Island, Nova Scotia." *Trans. Connecticut Acad. Arts and Sci.*, vol. 22, p. 260.

- [1919] "ASPY BAY, ATLANTIC OCEAN, DIAGRAM OF PRESENT DISTRIBUTION OF PLANT ASSOCIATIONS OF DUNE COMPLEX"
black and white [1:2400]

LEGEND

- | | |
|------------------------|----------------------|
| 1. Pre-cambrian upland | 5. Salt marsh |
| 2. Sand island | 6. Pine stumps |
| 3. Middle beach | 7. Transition zone |
| 4. Lower beach | 8. Sand dune complex |
- Also shows former limit of salt marsh and dune complex

HARVEY, LEROY H.

1919 "A coniferous sand dune in Cape Breton Island." *Botanical Gazette*, vol. 67, p. 420.

- [1953] "LOCATION OF MAIN TOLERANT HARDWOOD FOREST AREAS IN NOVA SCOTIA"
black and white [1:3,600,000]

LEGEND

1. [Tolerant hardwood forest]

DRINKWATER, M. H.

1957 *The tolerant hardwood forests of northern Nova Scotia*. Canada. Dept. Northern Affairs and Nat. Resources, Forestry Branch, Forest Res. Div., Techn. Note no. 57, p. 2.

ONTARIO

[1912] "FOREST DISTRIBUTION IN TRENT RIVER WATERSHED, PETERBOROUGH, HALIBURTON AND HASTINGS COUNTIES, ONTARIO"

in color

1:125,000

LEGEND

- | | |
|----------------------------|-------------------------------------|
| 1. Hardwood | 7. Barrens |
| 2. Mixed | 8. Swamp |
| 3. Coniferous | 9. Recently burned (except in 1913) |
| 4. Poplar type | 10. Areas burned in 1913 |
| 5. Cleared land | |
| 6. Cleared land, abandoned | |

Types 1-3 are subdivided into five classes: virgin, moderately culled, severely culled, young growth, and second growth. Type 4 is subdivided into three classes on basis of age

HOWE, C. D.

1913 *In* Howe, C. D., and J. H. White, *Trent Watershed survey, a reconnaissance*. Toronto, Canada, Commission of Conservation, Committee on Forests, in pocket.

1922 "AERIAL FOREST TYPE MAP SHOWING A PORTION OF THE JAMES BAY WATERSHED"

in color

[1:250,000]

LEGEND

- | | |
|---|--|
| <p>A. Timber</p> <ol style="list-style-type: none"> 1. Conifers—spruce etc. 2. Conifers—immature 3. Scrubby growth 4. Hardwoods—poplar and birch 5. Hardwoods—immature 6. Mixed growth—hardwoods and conifers 7. Mixed growth—immature 8. Pure jack pine stands | <p>B. Scrub</p> <ol style="list-style-type: none"> 9. Conifers—spruce etc. 10. Conifers—immature 11. Hardwoods—poplar and birch 12. Hardwoods—immature <p>C. Burn</p> <ol style="list-style-type: none"> 13. Conifers—spruce etc. 14. Conifers—immature 15. Scrubby growth 16. Hardwoods—immature <p>D. Muskeg</p> |
|---|--|

ONTARIO FORESTRY BRANCH

1922 [Separately published.]

[1946] "AREAS OF WOODLAND AND MARSH [SIMCOE AND TREWARTHA LAKES REGION, VICTORIA AND PETERBOROUGH COUNTIES]"

black and white

[1:704,000]

LEGEND

- 1. Marsh
- 2. Woodland

REEDS, L. G.

1946 "Land utilization in central Ontario." *Economic Geography*, vol. 22, p. 291.

- 1949 "MAP OF GOULAIS RIVER OBSERVATION AREA IN TOWNSHIPS 23 AND 24, RANGE XI, DISTRICT OF ALGOONA, ONTARIO"
in color [1:31,680]

LEGEND

- 1. Cut-over areas
 - a. Softwood type
 - b. Mixedwood type
- 2. Virgin areas
 - a. Softwood type
 - b. Mixedwood type
- 3. Burned areas
 - a. 1920 burn
 - b. Older burn
- 4. Swamp areas
- c. Hardwood type

MacLEAN, D. W.

1949 *Forest development on the Goulais River watershed, 1910-1946*. Canada Dept. Mines Resources, Dominion Forest Serv., Silvicultural Res. Note no. 94, in pocket.

- 1956, 1957 "GLACKMEYER DEVELOPMENT AREA"
in color 1:443,500

LEGEND

- 1. Poplar, white birch, balsam fir, white spruce
- 2. Aspen, white spruce, balsam fir, spruce
- 3. Black spruce
- 4. Aspen, white birch
- 5. Aspen, deciduous brush
- 6. White birch
- 7. Deciduous brush (mountain maple, hazel, mountain ash, alder, Labrador tea)

HILLS, G. A. *et al.*

1960 *The Glackmeyer Report of Multiple Land-use Planning*. Toronto. Ontario Department of Lands and Forests. Map no. 7.

- [1958] "MAP OF THE SURROUNDINGS OF THE CONFLUENCE OF ATTAWAPISKAT AND MUKETEI RIVERS (COMING FROM THE NORTHWEST)"
black and white [1:77,000]

LEGEND

- 1. Forest-covered
- 2. Bogs
- 3. Fens
- 4. Slightly raised bogs
- 5. Black-spruce islands

SJORS, HUGO

1959 "Bogs and fens in the Hudson Bay lowlands." *Arctic*, vol. 12, p. 10.

[1958] "PLOT S 2 [ALGONQUIN PROVINCIAL PARK]"

black and white

[1:4,500]

LEGEND

1. Balsam-spruce and hardwood
2. Low forest [of *Picea mariana*]

3. Intermediate forest [of *Picea mariana*]

4. High forest [of *Picea mariana*]

MARTIN, N. D.

1959 "An analysis of forest succession in Algonquin Park, Ontario."
Ecological Monographs, vol. 29, p. 193.

QUEBEC

- [1941] "MAP SHOWING FOREST REGIONS AND SECTIONS OF THE ST. MAURICE RIVER WATERSHED, PROVINCE OF QUEBEC"
 black and white [1:84,500]

LEGEND

1. Boreal forest region, northern coniferous section
 2. Boreal forest region, central transition section
 3. St. Lawrence forest region, Laurentides section
 4. St. Lawrence forest region, lower St. Lawrence section
- Modification of a portion of Canada map by Halliday (1937).

RAY, R. G.

1941 *Site types and rate of growth at Lake Edward, Champlain Co., P. Q. 1915-1936. (A report on the line-plot surveys of 1924-26 and 1936.)* Dominion Forest Serv., Silvicultural Res. Note no. 65, facing p. 2.

- [1951] "QUEBEC FOREST REGIONS"
 black and white [1:28,200,000]

LEGEND

- | | |
|-------------------------------|--------------------|
| 1. Tundra | 4. Mixed forest |
| 2. Ungava transitional forest | 5. Hardwood forest |
| 3. Coniferous forest | |

BROUILLETTE, BENOIT

1952 "The Province of Québec, physical background." *In* Putnam, Donald F. (ed.), *Canadian regions, a geography of Canada*. Toronto, J. M. Dent and Sons (Canada), Ltd., p. 137.

- [1953] "[COVER-SITE TYPE MAP (BAZINET LAND-TYPE) OF AREA SOUTH AND EAST OF BAZINET LAKE]"
 black and white [incalculable]

LEGEND

- | | |
|-------------------|----------------------|
| 1. MW [mixedwood] | 2. BS [black spruce] |
|-------------------|----------------------|
- Also classifies site types, stand age, and density.

BEDELL, G. H. D., W. G. E. BROWN and D. W. MacLEAN

1953 *Forest site classification and growth of the jack pine cover types in forest section B. 7 (Quebec)*. Project H-72. Canada Dept. Resources Devel., Forestry Branch, Forest Res. Div., unnumbered publ., p. 97.

1958 "FORÊT DE BEAUSÉJOUR, SAINT-JEAN-CHRYSOSTOME, COMTÉ DE LÉVIS,
 CARTE DE VÉGÉTATION"
 black and white [1:5,600]

LEGEND

- | | |
|--|--|
| <p>A. Végétation forestière</p> <ol style="list-style-type: none"> 1. Tremblaie, <i>Populetum tremuloidis</i> <ol style="list-style-type: none"> a. à aulne b. à dalibarda c. à dièreville 2. Érablière, <i>Aceretum sacchari</i> <ol style="list-style-type: none"> a. à orme b. à hêtre 3. Érablière rouge, <i>Aceretum rubri</i> <ol style="list-style-type: none"> a. à érable b. à bouleau gris c. à osmonde d. à thuya 4. Cèdrière, <i>Thujetum occidentalis</i> <ol style="list-style-type: none"> a. à frêne | <ol style="list-style-type: none"> b. à sphaignes 5. Aulnaie, <i>Alnetum rugosae</i> <ol style="list-style-type: none"> a. à <i>Carex</i> b. à sphaignes 6. Pessière, <i>Piceetum marianae</i> <ol style="list-style-type: none"> a. à némopanthé b. à <i>Ledum</i> <p>B. Végétation des tourbières</p> <ol style="list-style-type: none"> 7. Tourbière, <i>Sphagno-Chamaedaphnetum</i> <ol style="list-style-type: none"> a. à <i>Ledum</i> b. à <i>Chamaedaphne</i> c. à <i>Carex</i> <p>C. Végétation semi-aquatique</p> <ol style="list-style-type: none"> 8. Bas-marais, <i>Scirpetum atrocincti</i> <ol style="list-style-type: none"> a. à <i>Scirpus</i> <p>D. Terres abandonnées</p> |
|--|--|

GRANDTNER, MIROSLAV M.

1960 *La Forêt de Beauséjour, Comté de Lévis, Québec, étude phytosociologique*. Québec, Laval Univ. Forest Res. Found., Contr. no. 7, in pocket.

SASKATCHEWAN

- 1950 "OUTLINE MAP OF SASKATCHEWAN SHOWING THE LOCATION OF THE REGIONS STUDIED IN THIS PAPER"
black and white [1:10,400,000]

LEGEND

1. Boreal forest 2. Mixed prairie

COUPLAND, ROBERT *and* T. CHRISTOPHER BRAYSHAW

1953 "The fescue grassland in Saskatchewan." *Ecology*, vol. 34, p. 387.

- [1957] "MAP OF SASKATCHEWAN SHOWING ZONES OF NATURAL VEGETATION"
black and white [1:6,900,000]

LEGEND

1. Mixed prairie (grassland)
2. Parkland prairie (aspen grove) [Lists four subdivisions which are not mapped]
3. Mixedwood forest [Lists two subdivisions which are not mapped]
4. Northern coniferous forest
5. Forest-tundra transition. Northern transition

HUDSON, JOHN

1957 *In* Conard, Henry S., "Bryophytes of Saskatchewan." *Bryologist*, vol. 60, p. [340]. (Legend on p. 341.)

GREENLAND

[1937] "NATURAL VEGETATION, GREENLAND"

black and white

[1:24,100,000]

LEGEND

1. Southern "forest," bush and shrub forms. Willows and birch are dominant and in addition grasses, flowers, mosses, lichens, and heath
2. Same as (1) but with greater limitation of area in plant cover, a dwarfing of trees, especially birch, and a decrease in bush formation
3. Dwarfed willow copses, infrequent and small bush cover, and a dominance of grasses, mosses, and wild flowers
4. Absence of tree growth, a few stunted shrubs, and a dominance of lichens, grasses, mosses, and heath
5. High arctic plants of low form, i.e. grasses, flowers, mosses, and lichens in restricted areas
6. Botanically arid

FRIIS, HERMAN R.

1937 "Greenland: a productive arctic colony." *Economic Geography*, vol. 13, p. 79.

1958

"SOUTHEAST GREENLAND, VEGETATION TYPES (A GENERALIZED DISTRIBUTION)"

black and white

[1:7,100,000]

LEGEND

1. Birch or willow copse (clumps, 25"-100" tall)
2. Shrub heath (carpet, 6"-10" tall)
3. Fell field & meadow (discontinuous, 2"-3" tall)
4. Icecap (barren, micro-organisms in melt water)

HASTINGS, ANDREW D., JR.

1960 *Environment of southeast Greenland*. Natick, Massachusetts, U. S. Army, Headquarters Quartermaster Research and Engineering Command, Environmental Protection Division, Tech. Rept. no. EP-140, p. 19.

CONTERMINOUS UNITED STATES

[1903] "FOREST MAP OF THE UNITED STATES"

black and white

[1:30,900,000]

LEGEND

- A. [Western forest]
 - 1. Pacific Coast forest. Redwood, big tree, red fir, tideland spruce, sugar pine, western hemlock, western red cedar, etc.
 - 2. Interior coniferous forest. Lodgepole pine, western yellow pine, Englemann spruce, etc.
 - 3. Treeless or sparsely wooded
- B. Treeless region
 - 4. [Treeless]
- C. [Eastern forest]
 - 5. Northern forest. Maples, birches, white pine, hemlock, spruce, beeches, etc.
 - 6. Interior hardwood forest. Chestnut, ash, hickories, etc.
 - 7. Southern forest. Oaks, bald cypress, white cedar, gums, pines, longleaf pines, etc.

TROTTER, SPENCER

1903 *The geography of commerce, a text-book*. New York, Macmillan Co., p. [107].

1912 "NATURAL VEGETATION [UNITED STATES]"

in color

1:8,000,000

LEGEND

- A. Forest Vegetation (Western)
 - 1. Spruce-fir (northern coniferous forest)
 - 2. Cedar-hemlock (northwestern coniferous forest)
 - a. Western larch-western white pine
 - b. Pacific Douglas fir
 - c. Redwood
 - 3. Yellow pine-Douglas fir (western pine forest)
 - a. Yellow pine-sugar pine
 - b. Yellow pine-Douglas fir
 - c. Lodgepole pine
 - 4. Piñon-juniper (S. W. coniferous woodland)
 - 5. Chaparral (S. W. broad-leaved woodland)
- B. Desert Shrub Vegetation
 - 6. Sagebrush (northern desert shrub)
 - 7. Creosote bush (southern desert shrub)
 - 8. Greasewood (salt desert shrub)
- C. Grass Vegetation
 - 9. Tall grass (prairie grassland)

CONTERMINOUS UNITED STATES

10. Short grass (plains grassland)
11. Mesquite grass (desert grassland)
12. Mesquite and desert grass savanna (desert savanna)
13. Bunch grass (Pacific grassland)
14. Alpine meadow (alpine grassland)
15. Marsh grass (marsh grassland)
- D. Forest Vegetation (Eastern)
 16. Spruce-fir (n. coniferous forest)
 17. Jack, red and white pines (northeastern pine forest)
 18. Birch-beech-maple-hemlock (northeastern hardwoods)
 19. Oak (southern hardwood forest)
 - a. Chestnut-chestnut oak-yellow poplar
 - b. Oak-hickory
 - c. Oak-pine
 20. Cypress-tupelo-red gum (river bottom forest)
 21. Longleaf-loblolly-slash pines (southeastern pine forest)
 22. Mangrove (subtropical forest)

SHANTZ, H. L. and RAPHAEL ZON

1923 *Atlas of American Agriculture*. Washington, D. C., United States Department of Agriculture, Bureau of Plant Industry.

[1917] "VEGETATION AREAS OF THE UNITED STATES"

in color

1:9,600,000

LEGEND

- | | |
|--|--|
| 1. California microphyll desert | 12. Southeastern mesophytic evergreen forest |
| 2. Great Basin microphyll desert | 13. Northeastern evergreen—deciduous transition forest |
| 3. Texas succulent desert | 14. Northern mesophytic evergreen forest |
| 4. Arizona succulent desert | 15. Western xerophytic evergreen forest |
| 5. Texas semi-desert | 16. Northwestern hygrophytic evergreen forest |
| 6. Pacific semi-desert | 17. Alpine summits |
| 7. Desert-grassland transition | 18. Swamps and marshes |
| 8. Grassland | |
| 9. Grassland-deciduous-forest transition | |
| 10. Deciduous forest | |
| 11. Southeastern evergreen-deciduous transition forest | |

SHREVE, FORREST

1917 "A map of the vegetation of the United States." *Geographical Review*, vol. 3, inserted between pp. 124 and 125. (Reprinted, 1920 [1:15,000,000], black and white, in Shull, A. Franklin, George R. LaRue, and Alexander G. Ruthven, *Principles of animal biology*. New York, McGraw-Hill Book Co., facing p. 294; 1921 [1:16,800,000], not 1:9,600,000 as stated, in color, in Livingston, Burton E., and Forrest Shreve, *The distribution of vegetation in the United States as related to climatic conditions*. Carnegie Inst. Washington, Publ. no. 284, pl. 1, facing p. xvi; reprinted with simplification, 1959 black and white, [1:24,000,000], in Lyon, Charles J., *Flowering plants and vegetation, an introduction to field botany*. Third edition. Hanover, New Hampshire, published by the author, p. 235.)

[1921] "GENERALIZED VEGETATION MAP OF THE UNITED STATES, SHOWING NINE
GENERAL SUBDIVISIONS OF VEGETATION"
black and white [1:25,300,000]

LEGEND

- | | |
|---|---|
| 1. Desert | 7. Southeastern mesophytic
[evergreen] forest |
| 2. Semi-desert | 8. Northern mesophytic evergreen
forest (West) |
| 3. Grassland | 9. Northern mesophytic evergreen
forest (East) |
| 4. Grassland-deciduous forest
transition | |
| 5. Deciduous forest | |
| 6. Northwestern hygrophytic
evergreen forest | |

SHREVE, FORREST

1921 In Livingston, Burton E., and Forrest Shreve, *The distribution of vegetation in the United States as related to climatic conditions*. Carnegie Inst. Washington, Publ. no. 284, pl. 2, facing p. 46. [This plate (2) is used at same scale and with same legend and vegetation symbols as a base map for plates 6, 7, 11, 34-37, 39, 42-72 which show various factors relating to climate and vegetative distribution.] (Reprinted [with additional line emphasizing the division between open country and wooded country], 1939 [1:26,800,000], in Koebler, A. L., *Cultural and natural areas of native North America*. Berkeley, Univ. California Publ. Amer. Archaeol. and Ethnol., vol. 38, map 9, p. 58.)

1923 "FORESTS OF THE UNITED STATES"
in color 1:20,000,000

LEGEND

- A. Western Forest
1. Spruce-fir (northern coniferous forest)
 2. Cedar-hemlock (northwestern coniferous forest)
 - a. Western larch-western white pine
 - b. Pacific Douglas fir
 - c. Redwood
 3. Yellow pine-Douglas fir (western pine forest)
 - a. Yellow pine-sugar pine
 - b. Yellow pine-Douglas fir
 - c. Lodgepole pine
 4. Piñon-juniper (S.W. coniferous woodland)
 5. Chaparral (S. W. broadleaved woodland)
- B. Eastern Forest
6. Spruce-fir-northern hardwood (N. E. hardwood and coniferous forest)
 7. Jack, red and white pine (N. E. pine forest)
 8. Birch-beech-maple-hemlock (N. E. hardwoods)
 9. Oak (southern hardwood forest)
 - a. Chestnut-chestnut oak, yellow poplar
 - b. Oak-hickory
 - c. Oak-pine
 10. Cypress-tupelo-red gum (river bottom forest)

CONTERMINOUS UNITED STATES

11. Longleaf-loblolly-slash pine (S. E. pine forest)
12. Mangrove (subtropical)

ZON, RAPHAEL and WILLIAM N. SPARHAWK

1923 *Forest Resources of the World*, vol. 2. New York, McGraw-Hill Book Company. Facing p. 522.

✓[1924] “[GRASSLANDS OF THE UNITED STATES]”

black and white - ~~Scale 1:1,000,000~~

[1:17,870,000]

LEGEND

- A. Tall grass prairie grasslands
 1. Sand sage and sand grass or shinnery
 2. Bluestem sod
 3. Bluestem bunch grass
 4. Needle grass-slender wheat grass
 5. Broom sedge and water grass
- B. Bunch grass (Pacific grassland)
 6. Wheat grass sod
 7. Wheat grass bunch grass
 8. *Stipa* and *Poa* bunch grass
- C. Short grass (plains grassland)
 9. Grama grass
 10. Grama-buffalo grass
 11. Western wheat grass
 12. Grama and western needle grass
 13. Grama and mountain sage
 14. Grama and *Muhlenbergia*
 15. Wire grass
 16. Western wheat grass and sage brush
- D. Mesquite grass (desert grassland)
 17. Black grama
 18. Crowfoot grama
- E. Mesquite and desert grass savanna (desert savanna)
 19. Mesquite and mesquite grass
 20. Thorn bush and mesquite grass
- F. Marsh grass
 21. Marsh grassland
- G. Alpine meadow
 22. Alpine grassland

✓SHANTZ, H. L.

1924 *Atlas of American agriculture*. Washington, U. S. Dept. Agr., Bureau of Plant Industry, Section 7, p. 6.

[1932] “VEGETATION REGIONS”

black and white

1:20,000,000 (given on p. 15)

LEGEND

1. Desert
2. Semi-desert
3. Grassland
4. Grassland-deciduous forest transition
5. Deciduous forest
6. Northwestern hygrophytic evergreen forest
7. Northern mesophytic evergreen forest (west)
8. Northern mesophytic evergreen forest (east)

9. Southeastern mesophytic
evergreen forest

PAULLIN, CHARLES O.

1932 *Atlas of the historical geography of the United States*. Ed. by
J. K. Wright. Carnegie Inst. Washington, Publ. no. 401, plate 2D.

[1935] "THE FOREST REGIONS OF THE UNITED STATES"

black and white

[1:21,630,000]

LEGEND

- | | |
|---|---|
| <p>A. Western legend</p> <ol style="list-style-type: none"> 1. Douglas fir 2. Northern Rocky Mt. 3. Lodgepole pine 4. Southwest ponderosa pine 5. California pine 6. Northwest ponderosa pine 7. Black Hills ponderosa pine 8. Redwood <p>B. Eastern legend</p> | <ol style="list-style-type: none"> 9. Northeast spruce-hwd. 10. New England white pine 11. Oak 12. Allegheny hwd.-pine-hemlock 13. Southern Appalachian 14. Southern pine 15. Southern hardwood 16. Central hardwood 17. Lake States |
|---|---|

WESTVELD, RUTHERFORD H.

1936 *Applied silviculture in the United States*. Ann Arbor, Michigan, Edwards Bros., Inc., p. 1.

[1936] "VEGETATION REGIONS OF THE UNITED STATES"

black and white

[1:76,400,000]

LEGEND

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Mixed hardwood forest 2. Northern coniferous forest 3. Southern pine and oak-pine 4. Cypress-gum-tupelo 5. Northwestern coniferous 6. Western coniferous forest 7. Prairie & woodland | <ol style="list-style-type: none"> 8. Piñon-juniper woodland 9. Chaparral 10. Short grass 11. Desert grass 12. Bunch grass 13. Sage bush 14. Creosote bush |
|--|---|

STRONG, HELEN M.

1936 "Regionalism: its cultural significance." *Economic Geography*, vol. 12, p. 393.

[1938] "NATURAL VEGETATION"

black and white

[1:42,100,000]

LEGEND

- | | |
|---|--|
| <p>A. Grass vegetation</p> <ol style="list-style-type: none"> 1. Tall grass 2. Short grass 3. Mesquite grass <p>B. Forest vegetation</p> | <ol style="list-style-type: none"> 4. Forest 5. Arid woodland <p>C. Desert vegetation</p> <ol style="list-style-type: none"> 6. Sagebrush 7. Creosote bush |
|---|--|

SHANTZ, H. L. and RAPHAEL ZON

1938 In Edge, Rosalie, *Our nation's forests*. New York, Emergency Conservation Committee, Publ. no. 73, Conserv. Unit no. 6, p. 22. (Re-

printed, 1951 [1:43,000,000], simplified, in Whitaker, J. Russell, and Edward A. Ackerman: *American resources, their management and conservation*. New York, Harcourt, Brace and Co., p. 173; 1948 [1:41,800,000], simplified, in Barnes, C. P., "Environment of natural grassland." U. S. Dept. Agr., *Grass, The Yearbook of Agr. for 1948*, p. 48; and 1956 [1:36,800,000], in Parson, Ruben L., *Conserving American resources*. Englewood Cliffs, New Jersey, Prentice-Hall, Inc., p. [22].)

[1946] "SOIL-FOREST PROVINCES OF THE UNITED STATES"

black and white

[1:33,800,000]

LEGEND

1. Podzols—Northern coniferous forest (spruce, fir, hemlock, yellow birch)
2. Podzolic soils—Mixed hardwood-coniferous forest (white pine, hemlock, hard maple, basswood, beech)
3. Good soils—Prairie forest (oaks, hickory)
4. Melanized soils—Central hardwood forest (chestnut, chestnut oak, tulip poplar, beech, hard maple)
5. Podzolized and melanized lateritic soils—Southern pine and hardwood forest (longleaf pine, shortleaf pine, loblolly pine, slash pine, cypress, oaks, gums, magnolia)
6. Mangrove swamps—Subtropical forest (mangrove)
7. Chaparral soils—Sclerophyllous forest (evergreen oaks, manzanita, wild lilac with some pines and junipers)
8. Mountain soils—(Undifferentiated)—Western coniferous forest
 - a. Weakly developed mountain soils—piñon, juniper, ponderosa, Douglas fir
 - b. Mountain podzolic soils—western white pine, western red cedar, western hemlock
 - c. Mountain podzols—spruce, fir, larch
 - d. Sod soils—subalpine forest
9. Non-forest soils—Grasslands and deserts

WILDE, S. A.

1946 *Forest soils and forest growth*. Waltham, Massachusetts, Chronica Bot. Co., p. 140.

1949 "AREAS CHARACTERIZED BY MAJOR FOREST TYPES IN THE UNITED STATES"

in color

1:5,000,000

LEGEND

Western forest types (west of 100° W. long.)

- | | |
|--|--|
| <p>A. Commercial</p> <ol style="list-style-type: none"> 1. Douglas fir 2. Hemlock-spruce 3. Redwood 4. Ponderosa pine 5. White pine 6. Larch 7. Lodgepole pine 8. Fir-spruce 9. Hardwoods | <ol style="list-style-type: none"> 10. Conifer woodland 11. Reserved <p>B. Noncommercial</p> <ol style="list-style-type: none"> 12. All noncommercial forest land without differentiating types <p>C. Not typed</p> <ol style="list-style-type: none"> 13. Areas not typed, but may have some timber |
|--|--|

Eastern forest types (east of 100° W. long.)

- | | |
|---|--|
| <p>A. Commercial</p> <ul style="list-style-type: none"> 14. Longleaf-slash pine 15. Loblolly-shortleaf pine 16. Spruce-fir 17. White-red-jack pine 18. Maple-birch-beech 19. Oak-hickory 20. Aspen | <ul style="list-style-type: none"> 21. Swamp and bottom-land forests 22. Reserved <p>B. Noncommercial</p> <ul style="list-style-type: none"> 23. All noncommercial forest without differentiating types <p>C. Not typed</p> <ul style="list-style-type: none"> 24. Areas not typed, but may have some timber |
|---|--|

Individual legend items are expanded in small print

UNITED STATES FOREST SERVICE

1949 *National Survey of Forest Resources*. Washington, D. C., Dept. of Agriculture.

1950 "FOREST REGIONS OF THE UNITED STATES"
black and white 1:30,000,000

LEGEND

- | | |
|---|---|
| <p>A. Western</p> <ul style="list-style-type: none"> 1. Spruce-fir 2. Pacific Douglas fir 3. Sugar pine-Ponderosa pine 4. Redwood 5. Western larch-western white pine 6. Lodgepole pine 7. Ponderosa pine 8. Pifion-juniper 9. Chaparral | <p>B. Eastern</p> <ul style="list-style-type: none"> 1. Spruce-fir (with admixture of hardwoods) 2. Birch-beech-maple-hemlock forest 3. White, red and jack pine 4. Oak-hickory 5. Oak-chestnut-yellow poplar 6. Oak-pine 7. River bottom hardwoods and cypress 8. Longleaf-loblolly-slash pine |
|---|---|

BAKER, FREDERICK S.

1950 *Principles of silviculture*. New York. McGraw-Hill Book Co., Inc., p. 30.

1956 "VEGETATION OF THE UNITED STATES"
black and white 1:19,900,000

LEGEND

- | | |
|---|---|
| <ul style="list-style-type: none"> 1. Coastal forest 2. Chaparral 3. Desert scrub 4. Sagebrush and woodland 5. Rocky Mountain forest | <ul style="list-style-type: none"> 6. Grassland 7. Boreal forest 8. Deciduous forest 9. S. E. evergreen forest 10. Savanna |
|---|---|

CURTIS, J. T.

1956 *Plant ecology workbook, laboratory, field and reference manual*. Revised Ed. Minneapolis, Burgess Publ. Co., p. 71.

↳[1957] "GENERALIZED NATURAL-VEGETATION MAP OF THE UNITED STATES"
black and white [1:46,600,000]

LEGEND

- | | |
|-------------------|------------------------|
| 1. Tall grass | 4. Forest and woodland |
| 2. Short grass | 5. Desert shrub |
| 3. Mesquite grass | |

ALBRECHT, WILLIAM A.

1957 "Soil fertility and biotic geography." *Geographical Review*, vol. 47, p. 94.

1964

"THE POTENTIAL NATURAL VEGETATION OF THE CONTERMINOUS UNITED STATES"

in color

1:3,168,000

LEGEND

I. Western Forests

A. Needleleaf forests

1. Spruce-cedar-hemlock forest (*Picea-Thuja-Tsuga*)
2. Cedar-hemlock-Douglas fir forest (*Thuja-Tsuga-Pseudotsuga*)
3. Silver fir-Douglas fir forest (*Abies-Pseudotsuga*)
4. Fir-hemlock forest (*Abies-Tsuga*)
5. Mixed conifer forest (*Abies-Pinus-Pseudotsuga*)
6. Redwood forest (*Sequoia-Pseudotsuga*)
7. Red fir forest (*Abies*)
8. Lodgepole pine-subalpine forest (*Pinus-Tsuga*)
9. Pine-cypress forest (*Pinus-Cupressus*)
10. Ponderosa shrub forest (*Pinus*)
11. Western ponderosa forest (*Pinus*)
12. Douglas fir forest (*Pseudotsuga*)
13. Cedar-hemlock-pine forest (*Thuja-Tsuga-Pinus*)
14. Grand fir-Douglas fir forest (*Abies-Pseudotsuga*)
15. Western spruce-fir forest (*Picea-Abies*)
16. Eastern ponderosa forest (*Pinus*)
17. Black Hills pine forest (*Pinus*)
18. Pine-Douglas fir forest (*Pinus-Pseudotsuga*)
19. Arizona pine forest (*Pinus*)
20. Spruce-fir-Douglas fir forest (*Picea-Abies-Pseudotsuga*)
21. Southwestern spruce-fir forest (*Picea-Abies*)
22. Great Basin pine forest (*Pinus*)
23. Juniper-pinyon woodland (*Juniperus-Pinus*)
24. Juniper steppe woodland (*Juniperus-Artemisia-Agropyron*)

B. Broadleaf forests

25. Alder-ash forest (*Alnus-Fraxinus*)
26. Oregon oakwoods (*Quercus*)
27. Mesquite bosques (*Prosopis*)

C. Broadleaf and needleleaf forests

28. Mosaic of numbers 2 and 26
29. California mixed evergreen forest (*Quercus-Arbutus-Pseudotsuga*)
30. California oakwoods (*Quercus*)
31. Oak-juniper woodland (*Quercus-Juniperus*)
32. Transition between numbers 31 and 37

II. Western Shrub and Grasslands

A. Shrub

33. Chaparral (*Adenostoma-Arctostaphylos-Ceanothus*)
34. Montane chaparral (*Arctostaphylos-Castanopsis-Ceanothus*)
35. Coastal sagebrush (*Salvia-Eriogonum*)

36. Mosaic of numbers 30 and 35
 37. Mountain mahogany-oak scrub (*Cercocarpus-Quercus*)
 38. Great Basin sagebrush (*Artemisia*)
 39. Blackbrush (*Coleogyne*)
 40. Saltbush-greasewood (*Atriplex-Sarcobatus*)
 41. Creosote bush (*Larrea*)
 42. Creosote bush-bur sage (*Larrea-Franseria*)
 43. Palo verde-cactus shrub (*Cercidium-Opuntia*)
 44. Creosote bush-tarbrush (*Larrea-Flourensia*)
 45. Ceniza shrub (*Leucophyllum-Larrea-Prosopis*)
 46. Desert: vegetation largely absent
- B. Grasslands
47. Fescue-oatgrass (*Festuca-Danthonia*)
 48. California steppe (*Stipa*)
 49. Tule marshes (*Scripus-Typha*)
 50. Fescue-wheatgrass (*Festuca-Agropyron*)
 51. Wheatgrass-bluegrass (*Agropyron-Poa*)
 52. Alpine meadows and barren (*Agrostis, Carex, Festuca, Poa*)
 53. Grama-Galleta steppe (*Bouteloua-Hilaria*)
 54. Grama-tobosa prairie (*Bouteloua-Hilaria*)
- C. Shrub and grassland combinations
55. Sagebrush steppe (*Artemisia-Agropyron*)
 56. Wheatgrass-needlegrass shrubsteppe (*Agropyron-Stipa-Artemisia*)
 57. Galleta-three awn shrubsteppe (*Hilaria-Aristida*)
 58. Grama-tobosa shrubsteppe (*Bouteloua-Hilaria-Larrea*)
 59. Trans-Pecos shrubsavanna (*Flourensia-Larrea*)
 60. Mesquite savanna (*Prosopis-Hilaria*)
 61. Mesquite acacia savanna (*Prosopis-Acacia-Andropogon-Setaria*)
 62. Mesquite-live oak savanna (*Prosopis-Quercus-Andropogon*)
- III. Central and Eastern Grasslands
- A. Grasslands
63. Foothills prairie (*Agropyron-Festuca-Stipa*)
 64. Grama-needlegrass-wheatgrass (*Bouteloua-Stipa-Agropyron*)
 65. Grama-buffalo grass (*Bouteloua-Buchloë*)
 66. Wheatgrass-needlegrass (*Agropyron-Stipa*)
 67. Wheatgrass-bluestem-needlegrass (*Agropyron-Andropogon-Stipa*)
 68. Wheatgrass-grama-buffalo grass (*Agropyron-Bouteloua-Buchloë*)
 69. Bluestem-grama prairie (*Andropogon-Bouteloua*)
 70. Sandsage-bluestem prairie (*Artemisia-Andropogon*)
 71. Shinnery (*Quercus-Andropogon*)
 72. Sea oats prairie (*Uniola-Andropogon*)
 73. Northern cordgrass prairie (*Distichlis-Spartina*)
 74. Bluestem prairie (*Andropogon-Panicum-Sorghastrum*)
 75. Nebraska Sandhills prairie (*Andropogon-Calamovilfa*)
 76. Blackland prairie (*Andropogon-Stipa*)
 77. Bluestem-Sacahuista prairie (*Andropogon-Spartina*)
 78. Southern cordgrass prairie (*Spartina*)
 79. Palmetto prairie (*Serenoa-Aristida*)
- B. Grassland and forest combinations
80. Saline Everglades (*Mariscus* and *Persea-Taxodium*)
 81. Oak savanna (*Quercus-Andropogon*)
 82. Mosaic of numbers 74 and 100
 83. Cedar glades (*Juniperus-Quercus-Sporobolus*)
 84. Cross timbers (*Quercus-Andropogon*)
 85. Mesquite-buffalo grass (*Prosopis-Buchloë*)

- 86. Juniper-oak savanna (*Juniperus-Quercus-Andropogon*)
- 87. Mesquite-oak savanna (*Prosopis-Quercus-Andropogon*)
- 88. Fayette prairie (*Andropogon-Buchloë*)
- 89. Blackbelt (*Liquidambar-Quercus-Juniperus*)
- 90. Like oaks-sea oats (*Quercus-Uniola*)
- 91. Cypress savanna (*Taxodium-Mariscus*)
- 92. Everglades (*Mariscus* and *Magnolia-Persea*)

IV. Eastern Forests

A. Needleleaf forests

- 93. Great Lakes spruce-fir forest (*Picea-Abies*)
- 94. Conifer bog (*Larix-Picea-Thuja*)
- 95. Great Lakes pine forest (*Pinus*)
- 96. Northeastern spruce-fir forest (*Picea-Abies*)
- 97. Southeastern spruce-fir forest (*Picea-Abies*)

B. Broadleaf forests

- 98. Northern floodplain forest (*Populus-Salix-Ulmus*)
- 99. Maple-basswood forest (*Acer-Tilia*)
- 100. Oak-hickory forest (*Quercus-Carya*)
- 101. Elm-ash forest (*Ulmus-Fraxinus*)
- 102. Beech-maple forest (*Fagus-Acer*)
- 103. Mixed mesophytic forest (*Acer-Aesculus-Fagus-Liriodendron-Quercus-Tilia*)
- 104. Appalachian oak forest (*Quercus*)
- 105. Mangrove (*Avicennia-Rhizophora*)

C. Broadleaf and needleleaf forests

- 106. Northern hardwoods (*Acer-Betula-Fagus-Tsuga*)
- 107. Northern hardwoods-fir forest (*Acer-Betula-Abies-Tsuga*)
- 108. Northern hardwoods-spruce forest (*Acer-Betula-Fagus-Picea-Tsuga*)
- 109. Transition between numbers 104 and 106
- 110. Northeastern oak-pine forest (*Quercus-Pinus*)
- 111. Oak-hickory-pine forest (*Quercus-Carya-Pinus*)
- 112. Southern mixed forest (*Fagus-Liquidambar-Magnolia-Pinus-Quercus*)
- 113. Southern floodplain forest (*Quercus-Nyssa-Taxodium*)
- 114. Pocosin (*Pinus-Ilex*)
- 115. Sand pine scrub (*Pinus-Quercus*)
- 116. Subtropical pine forest (*Pinus-Tetrazygia*)

KÜCHLER, A. W.

1964 New York, N.Y. American Geographical Society. (Accompanied by manual.)

[n. d.] "UNITED STATES, NATURAL VEGETATION"

in color

1:4,500,000

LEGEND

- 1. Alpine flora, bare mountain summits and tundra
- 2. Desert
- 3. Semi-desert (sage brush prominent)
- 4. Semi-desert, scrub and steppe (cactus, *Yucca*, *Agave*, or *Acacia* prominent)
- 5. Grassland (prairie) and savanna
- 6. Northern coniferous forest (spruce prominent)
- 7. Pacific Coast coniferous forest (Douglas fir, Washington and Oregon; redwood, California)

8. Cordilleran coniferous forest (yellow pine, lodgepole pine, red fir, *Sequoia*; pines and evergreens, Mexico)
9. Northeastern coniferous forest, with admixture of broadleaved trees (white pine predominant)
10. Atlantic pine barrens
11. Appalachian mountain coniferous forest (white pine and spruce prominent)
12. South Appalachian upland mixed forest (oak, hickory, maple, beech, tulip-tree predominant)
13. Central broadleaved forest (oak, hickory, maple, *Magnolia*, cottonwood, etc.)
14. Mexican broadleaved forest
15. Mississippi broadleaved swamp forest
16. Southeastern evergreen forest (longleaf pine, ferns)
17. Evergreen trees and shrubs of California (evergreen oak)
18. Sub-tropical thorn forest (chaparral)
19. Sub-tropical rain forest
20. Swamp vegetation
21. Mangrove swamps

UNSTEAD, J. F. and E. G. R. TAYLOR (*eds.*)

[n. d.] [Separately published.] Philip's series of comparative wall atlases. London, George Philip and Son, Ltd.

WESTERN UNITED STATES

- [1855] "EXPLORATIONS OF THE GREAT PLAINS OF THE COLUMBIA [WASHINGTON AND OREGON], 1853-1855, UNDER THE DIRECTION OF GOVERNOR STEVENS" black and white [1:3,300,000]

LEGEND

1. Forest-grassland boundry

MEING, DONALD W.

1955 "Isaac Stevens: practical geographer of the early Northwest." *Geographical Review*, vol. 45, p. 546.

- [1898] "MAP OF PRIEST RIVER RESERVE [IDAHO-WASHINGTON] SHOWING THE DISTRIBUTION OF THE PRINCIPAL TIMBER SPECIES" in color [1:245,000]

LEGEND

- | | |
|--------------------------------------|--|
| 1. Yellow pine and hemlock | 6. Tamarack |
| 2. Poplar | 7. Cedar, Engelmann spruce, tamarack, white pine and red fir |
| 3. White pine and tamarack | 8. Red fir and tamarack |
| 4. Subalpine fir and white bark pine | 9. Cedar |
| 5. Lodgepole pine, black pine | 10. Merton hemlock |

LEIBERG, JOHN B.

1899 "Priest River Forest Reserve." *U. S. Geol. Surv., Ann. Rept.* no. 19 (1897-1898), pt. 5 (Forest reserves), pl. 47 in atlas.

- [1914] "MAP OF SOUTHEASTERN WASHINGTON AND ADJACENT IDAHO" black and white [1:1,000,000]

LEGEND

1. Coniferous woodland
2. Scab-land covered with sagebrush or bunch-grass

WEAVER, J. E.

1917 *A study of the vegetation of southeastern Washington and adjacent Idaho.* Univ. [of Nebraska] Studies, vol. 17, p. 8.

- [1921] "THE ORIGINAL VEGETATION [OF THE WESTERN UNITED STATES]" black and white [1:32,400,000]

LEGEND

- | | |
|----------------------|---|
| A. Forest vegetation | 1. Woodland (juniper-piñon and chaparral) |
|----------------------|---|

- | | |
|----------------------|--------------------------------------|
| 2. Coniferous forest | 5. Mesquite grass (desert grassland) |
| B. Desert vegetation | 6. Short grass (plains grassland) |
| 3. Creosote bush | 7. Tall grass (prairie grassland) |
| 4. Sage brush | |
| C. Grass vegetation | |

BAKER, OLIVER E.

1930 "Agricultural regions of North America. Part VIII—The Pacific Subtropical Crops Region." *Economic Geography*, vol. 6, p. 170.

- 1923 "NATIONAL FORESTS, DISTRICT 1 [IDAHO, MONTANA, PORTIONS OF WYOMING, NORTH DAKOTA AND SOUTH DAKOTA]"

black and white

1:2,000,000

LEGEND

1. Forest composed mainly of western yellow pine
2. Forest composed mainly of lodgepole pine and Douglas fir
3. Forest composed mainly of western white pine, cedar, hemlock and white fir
4. Forest composed mainly of western larch and Douglas fir
5. Sub-alpine forest and barren
6. Prairies, no forest

LARSEN, J. A.

1923 Priest River Forest Experiment Station, U. S. Forest Service.

- 1924, 1949 "MAP SHOWING LIMITS OF THE SHANTZ-ZON 'PINYON-JUNIPER' ASSOCIATION . . . AND LIMITS OF THE U. S. FOREST SERVICE "CONIFER WOODLAND" TYPE [IN COLORADO, NEW MEXICO AND WEST TEXAS EAST OF THE CONTINENTAL DIVIDE]"

black and white

[1:6,500,000]

LEGEND

- | | |
|---------------------------------|-------------------------|
| 1. [Pinyon-juniper association] | 3. Areas common to both |
| 2. [Conifer woodland type] | |
- From Shantz and Zon map of natural vegetation of the United States (1923) and U.S. Forest Service map of areas characterized by major forest types in the United States (1949).

WOODIN, HOWARD E. and ALTON A. LINDSEY

1954 "Juniper-pinyon east of the continental divide, as analyzed by the line-strip method." *Ecology*, vol. 35, p. [474].

- [1925] "MAP OF UTAH AND NEVADA SHOWING BELTS OF VEGETATION"

in color

[1:4,600,000]

LEGEND

- | | |
|--------------------------------------|---------------------------|
| 1. <i>Covillea</i> belt | 4. Aspen and spruce belts |
| 2. <i>Artemisia</i> and pinyon belts | 5. Alpine belts |
| 3. Yellow pine belt | |

TIDESTROM, IVAR

1925 *Flora of Utah and Nevada*. Contrib. U. S. Natl. Herbarium, vol. 25, frontispiece.

- [1930] "MAP SHOWING FOREST TYPES OF THE NORTHERN ROCKY MOUNTAINS"
black and white [1:4,200,000]

LEGEND

- | | |
|--|------------------------------|
| 1. Subalpine and higher | 4. Western larch-Douglas fir |
| 2. Lodgepole pine-Douglas fir | 5. Western yellow pine |
| 3. Cedar-hemlock-grand fir, white pine | |

LARSEN, J. A.

1930 "Forest types of the northern Rocky Mountains and their climatic controls." *Ecology*, vol. 11, p. 633.

- [1931] "FOREST TYPES AND PRECIPITATION REGIONS OF ARIZONA AND NEW MEXICO"
black and white [1:11,100,000]

LEGEND

1. Nonforested (small areas within the Engelmann spruce type area above timber line)
2. Piñon-juniper type
3. Western yellow pine and Douglas fir types combined
4. Engelmann spruce type

Adapted from map of the United States by Shantz and Zon (1923).

PEARSON, G. A.

1931 *Forest types in the Southwest as determined by climate and soil*. U. S. Dept. Agr., Tech. Bull. no. 247, p. 18.

- [1932] "BLACK HILLS, VEGETATION"
black and white [1:1,800,000]

LEGEND

- | | |
|--------------------------------------|--|
| A. Forest and scrub | 7. Oak-pine (med. to dense) |
| 1. West. yellow pine (med. to dense) | 8. Oak-pine (sparse) |
| 2. Pine (sparse) | 9. Mountain mahogany and skunk bush |
| 3. Pine (scattered) | B. Grassland, pasture, and cultivated land |
| 4. Large burns | 10. [Grassland, pasture and cultivated land] |
| 5. Cottonwood, oak-ash-elm | |
| 6. Spruce (extensive stands) | |

GUTHE, OTTO E.

1935 *The Black Hills of South Dakota and Wyoming*. Michigan Papers in Geogr., vol. 5, p. 354.

- [1934-1937] "VEGETATION TYPES OF THE CENTRAL SIERRA NEVADA REGION [INDIVIDUAL MAPS OF APPROXIMATELY 113 QUADRANGLES]"
blue and white 1:62,500

LEGEND

1. Barren
2. Semibarren
3. Desert: shadscale (*Atriplex confertifolia*), fourwing saltbush (*A. canescens*),

- rubber rabbitbrush (*Chrysothamnus nauseosus*), black greasewood (*Sarcobatus vermiculatus*), and cottontail (*Tetradymia glabrata*)
4. Grassland: grasses or bracken (*Pteridium aquilinum pubescens*) and woolly mules-ears (*Wyethia mollis*). In general, slender oat (*Avena barbata*), soft chess (*Bromus mollis*), and alfalfa (*Erodium cicutarium*).
 5. Sagebrush: big sagebrush (*Artemisia tridentata*), Bloomer goldenbush (*Aplopappus bloomeri*), and bitterbrush (*Purshia tridentata*)
 6. Chaparral: chamise (*Adenostoma fasciculatum*); at the lower elevations: white-leaf manzanita (*Arctostaphylos viscida*), common manzanita (*A. manzanita*), wedgeleaf ceanothus (*Ceanothus cuneatus*), and Christmas-berry (*Photinia salicifolia*). At the higher elevations: greenleaf manzanita (*A. patula*), whitethorn (*C. cordulatus*), deerbrush (*C. integerrimus*), snow-brush (*C. velutinus*), Sierra chinquapin (*Castanopsis sempervirens*), and huckleberry oak (*Quercus vaccinifolia*), mountain alder (*Alnus tenuifolia*) and/or willow (*Salix* spp.).
 7. Chamise chaparral: chamise, white-leaf manzanita, and wedgeleaf ceanothus
 8. Woodland: digger pine (*Pinus sabiniana*), blue oak (*Quercus douglasii*), interior live oak (*Q. wislizenii*), California white oak (*Q. lobata*), California black oak (*Q. kelloggii*), canyon live oak (*Q. chrysolepis*), Pacific madrone (*Arbutus menziesii*), and California buckeye (*Aesculus californica*)
 9. Woodland-grass: broad-leaved trees and digger pine, with the intervening ground space occupied by herbaceous vegetation
 10. Piñon and juniper: singleleaf piñon (*Pinus monophylla*) and Utah juniper (*Juniperus utahensis*)
 11. Miscellaneous conifers: knobcone pine (*Pinus attenuata*), McNab cypress (*Cupressus macnabiana*), and Sargent cypress (*C. sargentii*)
 12. Giant sequoia: giant sequoia (*Sequoia washingtoniana*), Sugar pine (*Pinus lambertiana*) or white fir (*Abies concolor*)
 13. Douglas-fir belt: Douglas-fir (*Pseudotsuga taxifolia*), California red fir (*Abies magnifica*). Also black oak, canyon live oak, and California incense-cedar (*Libocedrus decurrens*)
 14. Pine belt: ponderosa pine (*Pinus ponderosa*), Jeffrey pine, and sugar pine and incense-cedar; black oak and canyon live oak, and at the lower elevations digger pine. Lodgepole pine (*P. contorta*) and western white pine (*P. monticola*) are often associated with Jeffrey pine at the higher elevations.
 15. Pine-Douglas fir belt: commercial pines and Douglas fir
 16. Pine-Douglas fir-fir belt: white and red fir, commercial pines and Douglas fir. Also black oak and incense-cedar
 17. Pine-fir belt: white fir and red fir, commercial pines
 18. Fir belt: white fir and red fir
 19. Lodgepole-white pine belt: lodgepole pine, white pine, western hemlock (*Tsuga mertensiana*), whitebark pine (*Pinus albicaulis*)
 20. Whitebark-foxtail pine belt

BURKS, G. F. and UNITED STATES. Forest Survey. California Forest and Range Experiment Station

[1940 and after. Separately published.] California Forest and Range Exp. Sta., individual sheets.

[1936] "THE PRINCIPAL GRASS TYPES WITHIN THE BOUNDARY OF THE PRESENT RANGE"

black and white

[1:21,800,000]

LEGEND

- | | |
|----------------|-----------------------|
| 1. Tall grass | 3. Pacific bunchgrass |
| 2. Short grass | 4. Semidesert grass |

WESTERN UNITED STATES

ANON.

1936 In McArdle, Richard E., *et al.* "The white man's toll." In *The western range*. U. S. Senate, 74th Congress, 2d Session, Document no. 199, p. 85.

- [1936] "THE PRINCIPAL SHRUB TYPES OF THE PRESENT RANGE"
black and white [1:21,800,000]

LEGEND

- | | |
|--------------------------|----------------------|
| 1. Sagebrush-grass | 3. Salt-desert shrub |
| 2. Southern desert shrub | |

ANON.

1936 In McArdle, Richard E., *et al.* "The white man's toll." In *The western range*. U. S. Senate, 74th Congress, 2d Session, Document no. 199, p. 95.

- [1936] "THE PRINCIPAL FOREST TYPES OF THE PRESENT RANGE"
black and white [1:21,800,000]

LEGEND

- | | |
|-----------------------|----------------|
| 1. Piñon-juniper | 3. Open forest |
| 2. Woodland-chaparral | |

ANON.

1936 In McArdle, Richard E., *et al.* "The white man's toll." In *The western range*. U. S. Senate, 74th Congress, 2d Session, Document no. 199, p. 101.

- [1938] "THE RANGE OF THE SAGEBRUSH-GRASS COVER TYPE IN THE 11 WESTERN STATES"
black and white [1:18,600,000]

LEGEND

1. Sagebrush-grass area

CRADDOCK, G. W. and C. L. FORSLING

1938 *The influence of climate and grazing on spring-fall sheep range in southern Idaho*. U. S. Dept. Agr., Tech. Bull. no. 600, p. 3.

- [1938] "FORESTED AREA EAST OF CASCADE RANGE IN OREGON AND WASHINGTON"
green and white [1:4,300,000]

LEGEND

- | | |
|----------------|--------------------------|
| 1. Forest zone | 2. Juniper woodland zone |
|----------------|--------------------------|

UNITED STATES. *Forest Survey. Pacific Northwest Forest and Range Experiment Station*

1938 *Forest statistics for eastern Oregon and eastern Washington from inventory phase of forest survey*. Pacific Northwest Forest and Range Exp. Sta., Forest Res. Notes, no. 25, p. [11].

- [1940] "FORESTS OF THE ROCKY MOUNTAIN REGION"
black and white [1:5,700,000]

LEGEND

- | | |
|------------------------|------------------|
| 1. Western white pine | 4. Balsam-spruce |
| 2. Western yellow pine | 5. Pine-juniper |
| 3. Lodgepole pine | |

UNITED STATES. *Department of Agriculture*

1940 *In* Preston, Richard J., Jr., *Rocky Mountain trees, a handbook of the native species with plates and distribution maps*. Ames, Iowa, Iowa State College Press, frontispiece.

- 1940 "MAJOR VEGETATIVE TYPES: PECOS RIVER SURVEY"
in color

see below

LEGEND

- | | |
|--------------------------|----------------------|
| 1. Short grass | 5. Woodland |
| 2. Desert grass | 6. Coniferous forest |
| 3. Southern desert shrub | 7. Cultivated |
| 4. Tall grass | |

MICHAELS, C. C. and C. A. TIDWELL

[1949] *In*: *Survey report, flood control, Pecos River Watershed, New Mexico and Texas*, vol. 1 [Albuquerque, New Mexico], U. S. Dept. Agr., Soil Conserv. Serv. (Southwest Region), Flood Control Survey, maps following p. 28: 8 maps of varying scales as follows: areas 1, 4, and 6—1:900,000; areas 2, 3, and 7—1:800,000; areas 5 and 8—1:975,000.

- 1941 "COLORADO RIVER BASIN AND ADJACENT AREAS"
in color

1:5,400,000

LEGEND

- | | |
|---|------------------------------|
| 1. Desert: hot desert shrubs, trees and winter-spring annuals | |
| 2. Desert shrub | |
| a. Northern desert shrub | b. Southern desert shrub |
| 3. Grassland | |
| a. Desert grassland | b. Short grass |
| 4. Woodland | |
| a. Piñon-juniper and high mountain brush fields | |
| b. Oak-juniper, including chaparral and other southern mountain-brush and grass types | |
| 5. Forest | |
| a. Ponderosa pine, Douglas fir | c. Spruce, true firs, aspens |
| b. Lodgepole pine | |
| 6. Irrigated farm crops | |

SOUTHWEST INTERMOUNTAIN COMMITTEE

1941 U. S. Department of Agriculture. Albuquerque, N. M.

- [1941] "NATURAL VEGETATION TYPES IN THE SOUTHWEST"
black and white

[1:4,800,000]

LEGEND

- | | |
|----------|----------------|
| A. Grass | 1. Short grass |
|----------|----------------|

- | | |
|--------------------------------------|-----------------------------|
| 2. Desert grassland & mesquite grass | 5. Chaparral & oak woodland |
| B. Shrub | 6. Shinnery oak |
| 3. Southern desert shrub | C. Forest |
| 4. Northern desert shrub | 7. Piñon-juniper |
| | 8. Forest |

McGINNIES, WILLIAM G., K. W. PARKER and G. E. GLENDENING

1941 *Southwestern range ecology*. Washington, U. S. Forest Service, p. 134.

- [1941] "MAP OF THE NAVAJO COUNTRY [OF NORTHEAST ARIZONA AND EXTREME SOUTHEAST UTAH] SHOWING THE DISTRIBUTION OF THE MAJOR DUNE TYPES IN RELATION TO FORESTS" [1:2,000,000]
black and white

LEGEND

- | | |
|-----------------------|-------------------------|
| 1. Spruce forest | 3. Piñon-juniper forest |
| 2. Yellow pine forest | |

HACK, JOHN T.

1941 "Dunes of the western Navajo Country." *Geographical Review*, vol. 31, p. 244.

- [1942] "FOREST TYPES OF THE PACIFIC NORTHWEST (GENERALIZED)" [1:13,000,000]
black and white

LEGEND

- | | |
|---------------------------|---------------------|
| 1. Douglas fir | 6. Lodgepole pine |
| 2. Larch and Douglas fir | 7. Spruce & hemlock |
| 3. Balsam fir and hemlock | 8. Juniper |
| 4. Ponderosa pine | 9. Subalpine |
| 5. Western white pine | |

UNITED STATES. *Forest Survey. Pacific Northwest Forest and Range Experiment Station*

1942 In Wyckoff, Stephen N., "Forests of the Pacific Northwest." In Freeman, Otis W., and Howard H. Martin (eds.), *The Pacific Northwest, A regional, human, and economic survey of resources and development*. New York, John Wiley and Sons, Inc., p. 264.

- [1942] "MAP OF SOUTHEASTERN WASHINGTON AND ADJACENT IDAHO SHOWING MAJOR VEGETATION ZONES, RIVERS AND THE PRINCIPAL TOWNS" [1:2,000,000]
black and white

LEGEND

- | | |
|-------------------------------|-----------------------------|
| 1. <i>Artemisia-Agropyron</i> | 3. <i>Festuca-Agropyron</i> |
| 2. <i>Agropyron-Poa</i> | 4. Conifer forest |

DAUBENMIRE, REXFORD F.

1942 "An ecological study of the vegetation of southeastern Washington and adjacent Idaho." *Ecological Monographs*, vol. 12, p. 56.

- [1943] "NATURAL VEGETATION OF THE RANGE STATES" [1:19,000,000]
black and white

LEGEND

- | | |
|--------------------------|--------------------------|
| 1. Short grass | 6. Southern desert shrub |
| 2. Tall grass | 7. Chaparral |
| 3. Desert grass | 8. Piñon-juniper |
| 4. Bunch grass | 9. Coniferous forest |
| 5. Northern desert shrub | |

STODDART, LAURENCE A. and ARTHUR D. SMITH

1955 *Range management*. Second edition. New York, McGraw-Hill Book Co., Inc., p. 47.

[1943] "NATURAL VEGETATION PACIFIC NORTHWEST"

in color

[1:3,200,000]

LEGEND

- | | |
|---------------------|-------------------------------------|
| 1. Spruce-fir | 7. Bunch grass including sage brush |
| 2. Larch-white pine | 8. Short grass |
| 3. Douglas fir | 9. Lava beds |
| 4. Yellow pine | 10. [Areas devoid of vegetation] |
| 5. Lodgepole pine | |
| 6. Juniper | |

BLAIR, R. BAXTER

1943 *On his map: Physical and political, Pacific Northwest*. Chicago, Denoyer-Geppert Co., Denoyer-Geppert Physical-Political Series, no J165rp (Pacific Northwest).1943 "VEGETATIVE TYPES AND AGRICULTURAL LANDS: CALIFORNIA—NEVADA"
in color 1:2,500,000

LEGEND

- | | |
|-----------------------------|-------------------------------|
| 1. Douglas fir forest | 6. Subalpine forest |
| 2. Pine and pine-fir forest | 7. Grass and open range lands |
| 3. Juniper-piñon forest | 8. Agricultural lands |
| 4. Redwood forest | 9. Desert |
| 5. Woodland and chaparral | |

UNITED STATES *Department of Agriculture*

1943 California-Nevada Interbureau Post War Planning Committee.

[1947] "MAP OF UTAH AND NORTHEASTERN ARIZONA SHOWING DISTRIBUTION OF
PIGMY CONIFERS"
black and white [1:4,100,000]

LEGEND

1. [Pinyon-juniper woodland]

WOODBURY, ANGUS M.

1947 "Distribution of pigmy conifers in Utah and northeastern Arizona." *Ecology*, vol. 28, p. 115.

- [1949] "THE AREAL EXTENT OF THE SHADSCALE ZONE IN NEVADA AND EASTERN CALIFORNIA"
 black and white 1:5,600,000

LEGEND

- | | |
|-------------------------------|-----------------------|
| 1. Shadscale zone | 3. Creosote bush zone |
| 2. Sagebrush and higher zones | |

BILLINGS, W. DWIGHT

1949 "The shadscale vegetation zone of Nevada and eastern California in relation to climate and soils." *American Midland Naturalist*, vol. 42, p. 88.

- [1949] "REGION OF THE MESA DE MAYA VEGETATION"
 black and white [incalculable]

LEGEND

- | | |
|-------------------|--------------|
| 1. Prairie | 4. Sand dune |
| 2. Foothill | 5. Riparian |
| 3. Rocky mountain | |

ROGERS, C. M.

1953 "The vegetation of the Mesa de Maya region of Colorado, New Mexico, and Oklahoma." *Lloydia*, vol. 16, p. 266.

- [1950] "TYPES OF FORESTS FOUND IN WASHINGTON AND OREGON (WESTERN CASCADES)"
 black and white [1:7,600,000]

LEGEND

1. Typical Sitka spruce forest
2. Sitka spruce-Port Orford cedar forest
3. Typical Douglas fir forest
4. Sub-mountain Douglas fir forest
5. Mountain fir forest and sub-alpine forest
6. Alpine zone
7. Douglas fir forest with *Quercus garryana* (Oregon oak) forest
8. Douglas fir-Port Orford cedar forest
9. Douglas fir forest with *Libocedrus*, *Pinus ponderosa*, *Pinus lambertiana*

ANON.

1952 *Ecology of American forest species, erosion and reafforestation*. Technical Assistance Mission no. 18, part II of the report. Paris, Organiz. European Econ. Co-operation, p. [43].

- '951] "MAP DIAGRAM, GREAT BASIN VEGETATION ZONES"
 black and white [1:9,750,000]

LEGEND

1. Creosote bush zone
2. Shadscale zone
3. Sagebrush-grass zone
4. Montane zonal series

BILLINGS, W. DWIGHT

1951 "Vegetational zonation in the Great Basin of Western North America." In *Comptes Rendus du Colloque sur les bases écologiques de la régénération de la végétation des zones arides*. International Union of Biological Sciences, following p. 104.

1952 "MAP OF NORTHERN IDAHO WITH ADJACENT PARTS OF WASHINGTON"
black and white 1:4,500,000

LEGEND

- | | |
|---------------------------|-------------------------------|
| 1. Forest area studied | 3. Agropyron grassland zone |
| 2. Festuca grassland zone | 4. Artemisia semi-desert zone |

DAUBENMIRE, R.

1952 "Forest vegetation of northern Idaho and adjacent Washington, and its bearing on concepts of vegetation classification." *Ecological Monographs*, vol. 22, no. 4, p. 301.

[1953] "FORESTS OF THE WESTERN UNITED STATES"
in color [1:16,500,000]

LEGEND

- A. [Miscellaneous conifers]
1. Subalpine species of pine, fir, hemlock, larch
 2. Redwood, incense cedar, tan oak
 3. Western larch, western white pine
 4. Coniferous rain forest: Douglas fir (Pacific type), Sitka spruce, canoe cedar, lowland fir
- B. Yellow pine, Douglas fir (western pine forest)
5. Sierran conifers: Jeffrey, yellow, sugar and other pines
 6. Yellow pine, Douglas fir (Rocky Mountain type)
 7. Rocky Mountain fire-type forest: lodgepole pine, aspen, etc.
- C. Pinyon-juniper
8. Pinyon-juniper
- D. [Other types]
9. Treeless: prairies, desert, tundra, alpine
 10. Riparian hardwoods: cottonwood, willow, etc.
 11. Chaparral (S. W. broad-leaved woodland)

PEATTIE, DONALD CULROSS

1953 *A natural history of western trees*. Boston, Houghton Mifflin Co., on endpapers.

1953 "BIGHORN BASIN"
in color 1:125,000

LEGEND

- | | |
|--------------------------------|--------------------|
| 1. Grass | 7. Timber |
| 2. Meadow | 8. Barren |
| 3. Sagebrush | 9. Broadleaf trees |
| 4. Mountain shrub (chaparral) | 10. Saltbush |
| 5. Conifer (pine, fir, spruce) | 11. Greasewood |
| 6. Waste | |

WESTERN UNITED STATES

UNITED STATES. *Bureau of Land Management*

1953 *Land planning and classification report of the public Domain Lands in the Bighorn Basin.* Billings, Mont., Map Supplement A, Vegetation.

- 1953-1954 "COLORADO PINYON DISTRIBUTION WITH OTHER VEGETATIVE TYPES, NAVAJO-HOPI INDIAN RESERVATIONS, ARIZONA-UTAH"
black and white [1:1,070,000]

LEGEND

- | | |
|--|---|
| 1. Pinyon dominant (<i>Pinus edulis</i>) | 3. Ponderosa (<i>Pinus ponderosa</i>) |
| 2. Juniper dominant (<i>Juniperus osteosperma</i>) | 4. Grassland and shrubs |

DEAVER, CHESTER F. and HORACE S. HASKELL

1955 *Pinyon resources. Distribution of pinyon (Pinus edulis), yield and resin potentialities, Navajo-Hopi Reservations, Arizona-Utah.* Tucson, Univ. of Arizona Press, p. 3.

- 1954 "DISTRIBUTION OF VEGETATION TYPES AND YIELD STUDY PLOT LOCATIONS, DEFIANCE UPLIFT AND ADJACENT AREA"
black and white [1:390,000]

LEGEND

- | | |
|------------------------|--------------|
| 1. Grassland and shrub | 3. Ponderosa |
| 2. Pinyon | |

DEAVER, CHESTER F. and HORACE S. HASKELL

1955 *Pinyon resources. Distribution of pinyon (Pinus edulis), yield and resin potentialities, Navajo-Hopi Reservations, Arizona-Utah.* Tucson, Univ. of Arizona Press, p. 15.

- [1955] "DISTRIBUTION OF STUDY SITES IN RELATION TO MAJOR VEGETATION UNITS"
black and white [1:6,200,000]

LEGEND

- | | |
|--------------------------|----------------------------|
| 1. <i>Artemisia</i> zone | 3. <i>Festuca</i> zone |
| 2. <i>Agropyron</i> zone | 4. Coniferous forest zones |

RICKARD, W. H.

1960 "The distribution of small mammals in relation to the climax vegetation mosaic in eastern Washington and northern Idaho." *Ecology*, vol. 41, p. 100 (duplicated on p. 103).

- [1956] "PRINCIPAL RANGE TYPES"
black and white [1:19,200,000]

LEGEND

- | | |
|-----------------------|--------------------------|
| 1. Tall grass | 6. Southern desert shrub |
| 2. Short grass | 7. Salt-desert shrub |
| 3. Pacific bunchgrass | 8. Piñon-juniper |
| 4. Semidesert grass | 9. Woodland-chaparral |
| 5. Sagebrush-grass | 10. Open forest |

PARSON, RUBEN L.

1956 *Conserving American resources*. Englewood Cliffs, New Jersey, Prentice-Hall, Inc., p. [248].

[1956] "GENERALIZED LOCATION OF MAJOR FOREST TYPES IN ARIZONA AND NEW MEXICO"

black and white

[1:5,200,000]

LEGEND

- | | |
|---------------------|--|
| 1. Douglas fir | 5. Noncommercial woodland and chaparral |
| 2. Spruce-fir | 6. Commercial forest reserved from cutting |
| 3. Ponderosa pine | |
| 4. Conifer woodland | |

KRAUCH, HERMANN

1956 *Management of Douglas fir timberland in the Southwest*. Rocky Mountain Forest and Range Exp. Sta., Sta. Paper no. 21, p. 3.

[1956] "VEGETATION, UPPER RIO GRANDE WATERSHED [COLORADO AND NEW MEXICO]"

in color

[1:1,500,000]

LEGEND

- | | |
|---|---|
| A. Grassland | 5. Sand sagebrush (<i>Dalea scoparia</i>) |
| 1. Grassland & half shrubs (semi-desert) | 6. Sagebrush |
| 2. Mountain grass & meadows (humid and sub-humid) | C. Forest |
| B. Shrub | 7. Woodland (pinyon-juniper) |
| 3. Creosote bush | 8. Ponderosa pine |
| 4. Saltbush-greasewood | 9. Spruce, fir, aspen |
| | D. Cultivated |
| | 10. Irrigated land |

ANON.

1956 In Dortignac, E. J., *Watershed resources and problems of the upper Rio Grande Basin*. Rocky Mountain Forest and Range Exp. Sta., unnumbered publ., fig. 2, following p. 6.

[1957] "SIERRA MADREAN FLORA"

black and white

[1:17,900,000]

LEGEND

1. Southwestern oak woodland & chaparral
2. California oak woodland (enclosing islands of Calif. chaparral)
3. California chaparral (enclosing islands of Calif. oak woodland)
4. Pacific grassland
5. Juniper-pinyon woodland
6. Sagebrush desert

BENSON, LYMAN

1957 *Plant classification*. Boston, D. C. Heath and Co., p. 606.

[1957] "[ROCKY MT. FLORA]"

black and white

[1:16,700,000]

LEGEND

- | | |
|---|--|
| <p>A. Rocky Mt. forest flora</p> <ol style="list-style-type: none"> 1. Rocky Mt. subalpine forest 2. Rocky Mt. montane forest | <p>B. Boreal flora</p> <ol style="list-style-type: none"> 3. Alpine tundra (surrounded by subalpine forest) |
|---|--|

BENSON, LYMAN

1957 *Plant classification*. Boston, D. C. Heath and Co., p. 585.

- [1958] “[DOUGLAS FIR AND PINE REGIONS FROM BRITISH COLUMBIA TO NORTHERN CALIFORNIA AND FROM CENTRAL WYOMING TO THE PACIFIC COAST]”
black and white [1:28,400,000]

LEGEND

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Douglas fir | <ol style="list-style-type: none"> 2. Pine |
|--|---|

ANON.

1959 In Henderson, George M., “Role of Pacific Northwest forests in the economy of Oregon and Washington.” In Miller, Robert S. (chairman), *Citizens' Conference on Pacific Northwest forest resources*. Portland, Oregon, Reed College, June 19-20, 1959, p. 13.

- [1959] “DISTRIBUTION OF MODERN VEGETATION IN THE FAR WEST CORRESPONDING TO FLORAL ELEMENTS WHICH COMPRISED THE LATE TERTIARY BIGTREE COMMUNITY”
black and white [1:16,400,000]

LEGEND

- | | |
|---|---|
| <p>A. Arcto-Tertiary [source]</p> <ol style="list-style-type: none"> 1. Coast forest 2. Sierra-Cascade forest 3. Rocky Mtn. forest | <p>B. Madro-Tertiary [source]</p> <ol style="list-style-type: none"> 4. California woodland and chaparral 5. Piñon-juniper woodland 6. Sierra-Madrean woodland |
|---|---|

AXELROD, DANIEL I.

1959 “Late Cenozoic evolution of the Sierra bigtree forest.” *Evolution*, vol. 13, p. 12.

- [1959] “[VEGETATION AND LAND USE, AREA APPROXIMATELY 35°-40° N. LATITUDE, 118° W. LONGITUDE TO PACIFIC COAST]”
in color [1:5,100,000]

LEGEND

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Tundra and permanent snow 2. Evergreen needle leaf forest 3. Mid-latitude mixed forest 4. Mediterranean scrub woodland | <ol style="list-style-type: none"> 5. Steppe 6. Desert 7. Irrigated dry land 8. Cultivation |
|--|---|

McFALL, CHRISTIE and VINCENT KOTSCHAR, *Geographic Presentation Services*

1959 In James, Preston E., and Nelda Davis, *The wide world, a geography*. New York, The Macmillan Company, p. [137].

- 1960 “DISTRIBUTION OF JUNIPERS AND PINYONS IN THE SOUTHWEST”
black and white 1:8,727,000

LEGEND

1. Utah juniper & piñon
2. Piñon & Rocky Mountain juniper
3. One-seed juniper & piñon
4. Alligator juniper, piñon &
 - a. One-seed juniper in New Mexico
 - b. Utah juniper in Arizona

DORTIGNAC, E. J.

1960 "Water yield from pinyon-juniper woodland." in Warnock, Barton H. and J. L. Gardner, *Water yield in relation to environment in the southwestern United States*. Southwestern and Rocky Mountain Division of the American Association for the Advancement of Science, p. 17.

CENTRAL UNITED STATES

1830 "CALUMET REGION OF NORTHWEST INDIANA AND NORTHEAST ILLINOIS"
black and white 1:300,000

LEGEND

- A. Woodland
 - 1. Broadleaved—white oak, black oak, red oak, bur oak, hickory, ash, elm, linden, beech, maple, birch, aspen, poplar, pin oak, yellow oak
 - 2. Coniferous—jack pine, common juniper, white pine, arbor vitae
 - 3. Approximate zone separating broadleaved forests on the south from mixed broadleaved and coniferous to the north
 - 4. Barrens—tracts of land, commonly sandy, poorly forested, dominantly oak or pine
 - 5. Swamp—tamarack, alder, pine, black ash, elm, oak, aspen, maple, willow, buttonwood
- B. Grassland
 - 6. Prairie—big bluestem, little bluestem, bluejoint, panic, and other grasses, and sedges, and herbaceous plants
 - 7. Wet prairie—mixed prairie and marsh types
 - 8. Marsh—slough grasses and sedges, pondweeds, cat-tails, flags, wild rice, bur-reeds, rushes, cranberries, huckleberries

MAYER, ALFRED H.

1954 "Circulation and settlement patterns of the Calumet Region of Northwest Indiana and Northeast Illinois." *Annals of the Association of American Geographers*, vol. 44, 1954, pp. 246-247; *Ibid.*, vol. 46, 1956, pp. 314-315.

[1832-1855] "DRIFTLESS HILL LAND, ORIGINAL NATIVE VEGETATION [SOUTHEAST MINNESOTA, SOUTHWEST WISCONSIN, AND NORTHEAST IOWA]"
black and white [1:1,700,000]

LEGEND

- 1. Prairie
- 2. Hardwoods
- 3. Conifers
- 4. Mixed woodland
- 5. Brush
- 6. Marsh

TREWARTHA, GLENN T.

1940 "The vegetal cover of the driftless cuestaform hill land: pre-settlement record and postglacial evolution." *Trans. Wisconsin Acad. Sci., Arts, and Lett.*, vol. 32, first map, following p. 368.

[1832-1855] "DRIFTLESS HILL LAND, BROAD REGOLITH AND VEGETATION CLASSES, AND MAJOR SOIL TYPES [SOUTHEAST MINNESOTA, SOUTHWEST WISCONSIN, AND NORTHEAST IOWA]"
black and white [1:1,700,000]

LEGEND

- | | |
|-------------------------------|------------------|
| 1. Broadleaf and mixed forest | 2. Prairie Grass |
|-------------------------------|------------------|

TREWARTHA, GLENN T.

1940 "The vegetal cover of the driftless cuestaform hill land: pre-settlement record and postglacial evolution." *Trans. Wisconsin Acad. Sci., Arts, and Lett.*, vol. 32, second map, following p. 368.

- [1832-1855] "DRIFTLESS HILL LAND, HARDWOOD FOREST TYPES [SOUTHEAST MINNESOTA, SOUTHWEST WISCONSIN, AND NORTHEAST IOWA]"
black and white [1:1,700,000]

LEGEND

- | | |
|----------------------------|--|
| 1. Oak, maple, linden, elm | 5. Oak, hickory |
| 2. Oak (thin stand) | 6. River bottom woodland (oak, elm, soft maple, willow, ash) |
| 3. Oak (denser stand) | |
| 4. Oak, aspen, linden, elm | |

TREWARTHA, GLENN T.

1940 "The vegetal cover of the driftless cuestaform hill land: pre-settlement record and postglacial evolution." *Trans. Wisconsin Acad. Sci., Arts, and Lett.*, vol. 32, third map, following p. 368.

- 1900 "MAP OF THE EASTERN AND WESTERN CROSS TIMBERS OF THE BLACK AND GRAND PRAIRIES OF TEXAS AND SOUTHERN INDIAN TERRITORY"
in color [1:792,000]

LEGEND

- | | |
|-----------------------------|-----------------------------|
| A. The Grand Prairie region | B. The Black Prairie region |
| 1. Western Cross Timbers | 4. Eastern Cross Timbers |
| 2. Lampasas cut plain | 5. Black prairie |
| 3. Fort Worth prairie | |

HILL, ROBERT T.

1901 "Geography and geology of the Black and Grand Prairies, Texas." *U. S. Geol. Surv., Ann. Rept.* no. 21 (1899-1900), pt. 7 (Texas), inserted between pp. 60-61.

- [1905] "FORESTS IN WESTERN KANSAS AND NEBRASKA [AND EXTREME EASTERN COLORADO]"
green, black, and white [1:4,900,000]

LEGEND

- | | |
|--------------------|----------------|
| 1. Pine ridge type | 2. Valley type |
|--------------------|----------------|

KELLOGG, ROYAL S.

1905 *Forest belts of western Kansas and Nebraska*. U. S. Dept. Agr., Forest Serv., Bull. no. 66, facing p. 8.

- [1912] "SOME OF THE PHYSICAL FEATURES OF THE PRINCIPAL AREA OF STUDY AND THE DISTRIBUTION OF THE DOMINANT AND CLIMATIC ANIMAL COMMUNITIES

CENTRAL UNITED STATES

[IN NORTHEASTERN ILLINOIS, NORTHWESTERN INDIANA, AND SOUTHWESTERN MICHIGAN]"

black and white [1:1,500,000]

LEGEND

- 1. Sand areas
- 2. Active dunes
- 3. Tamarack swamp communities
- 4. Marsh communities
- 5. Red-oak and flood-plain communities
- 6. Beech-maple communities
- 7. Prairie communities

SHELFORD, VICTOR E.

1913 *Animal communities in temperate America, as illustrated in the Chicago region.* Geogr. Soc. Chicago, Bull. no. 5, frontispiece.

[1923] "VEGETATION OF THE GREAT PLAINS"

black and white [1:16,000,000]

LEGEND

- A. Short grass (plains grassland)
 - 1. Grama and western needle grass
 - 2. Wiregrass
 - 3. Western wheat-grass
 - 4. Grama and buffalo grass
 - 5. Grama grass
 - 6. Grama grass and mountain sage
 - 7. Grama and *Muhlenbergia*
- B. Tall grass (prairie grassland)
 - 8. Needle grass and slender wheat-grass
 - 9. Bluestem bunch-grass
- 10. Sand grass and sand sage or shinnery
- C. Mesquite and desert grass savanna
 - 11. Thorn bush and mesquite grass
 - 12. Mesquite and mesquite grass
- D. Sage brush (northern desert shrub)
 - 13. Sage brush and western wheat-grass
- E. Mesquite grass (desert grassland)
 - 14. Black grama

SHANTZ, HOMER LEROY

1923 "The natural vegetation of the Great Plains Region." *Annals of the Association of American Geographers*, vol. 13, p. 83.

[1927] "LOCATION OF THE PRAIRIES OF MICHIGAN WITH REFERENCE TO THE CENTRAL PRAIRIE REGION OF THE UNITED STATES"

black and white [1:15,000,000]

LEGEND

- 1. Central prairie region
- 2. Region in Michigan in which prairies occur

VEATCH, JETHRO OTTO

1928 "The dry prairies of Michigan." *Papers Michigan Acad. Sci., Arts, Letters*, vol. 8 (1927), p. 270.

1928-1929 "TYPES OF GAME RANGE AS DETERMINED BY A GAME SURVEY OF THE NORTH-CENTRAL STATES"

in color [1:11,500,000]

LEGEND

- I. Forest belt. Original vegetation: Northern conifers and hardwood. No prairie
 - 1. North woods
 - 2. Transition
- II. Agricultural belt
 - A. Original vegetation: Prairie interspersed with hardwood
 - 3. Prairie
 - 5. Upper Mississippi R.
 - 4. Riverbreaks
 - B. Original vegetation: Hardwoods, little or no original prairie
 - 6. Till plain
 - 7. Lakebed
- III. Hill belt. Original vegetation: Southern hardwoods and conifers. No original prairie except in S. W. Mo.
 - 8. Hill-type
 - 9. Ozarks
- IV. Mississippi lowland
 - 10. [Mississippi lowland]

LEOPOLD, ALDO

1931 *Report on a game survey of the North Central States*. Madison, Wisconsin, Sporting Arms and Ammunition Manufacturers' Institute, Committee on Restoration and Protection of Game, p. 13.

- [1930] "FUNDAMENT OF THE KANKAKEE MARSH OF NORTHERN INDIANA-ILLINOIS, LANDFORMS, DRAINAGE, NATURAL COVER"
black and white [1:253,000]

LEGEND

- 1. Uplands, dominantly elevated and dry, more or less sandy areas, representing "barrens" or covered by an oak timber association
- 2. Marsh, dominantly low and wet areas with a marsh herb formation, including locally swamp outliers
- 3. Main stand of thick swamp timber, mostly flooded

MEYER, ALFRED H.

1936 "The Kankakee 'marsh' of northern Indiana and Illinois." *Papers Michigan Acad. Sci., Arts and Lett.*, vol. 21 (1935), facing p. 380 (Reprinted, 1936 same scale, in his "The Kankakee 'marsh' of northern Indiana and Illinois." *Michigan Papers in Geogr.*, vol. 6, facing p. 390.)

- [1931] "MAP OF THE LARGER EXPANSES OF PRAIRIE"
black and white [1:4,100,000]

LEGEND

- 1. Prairie expanses
 - a. Shannon Prairie
 - b. Bushnell Prairie
 - c. Carthage Prairie
 - d. Wea Prairie
 - e. Mendota Prairie
 - f. Grand Prairie
- 2. Range of post oak forests
- 3. Other areas chiefly forest

VESTAL, ARTHUR G.

1931 "A preliminary vegetation map of Illinois." *Trans. Illinois State Acad. Sci.*, vol. 23, p. 207.

CENTRAL UNITED STATES

[1932] "NATURAL VEGETATION AREAS OF THE EAST-CENTRAL STATES"
black and white [1:14,700,000]

LEGEND

- | | |
|--|----------------------------------|
| 1. Shortleaf pine-plateau oak forest types | 4. Beech-maple forest types |
| 2. Oak-hickory forest types | 5. Hemlock-hardwood forest types |
| 3. Oak-chestnut forest types | 6. Spruce-fir forests |
| | 7. Bottomland hardwood forests |

GORDON, ROBERT BENSON

1932 "The primary forest types of the East-Central States." *Abstr. Doctors' Diss., Ohio State Univ.*, no. 8, p. 45.

1935 "PRINCIPAL VEGETATION ZONES OF THE PRAIRIE-PLAINS REGION"
black and white 1:9,000,000

LEGEND

- | | |
|------------------|----------------------------------|
| 1. Mixed prairie | 4. Sand hills (tall bunch grass) |
| 2. Forest | 5. True prairie |
| 3. Mountains | 6. Short grass plains |

AIKMAN, J. M.

1935 *Native vegetation of the shelterbelt. Possibilities of shelterbelt planting in the Plains Region.* U. S. Forest Service, Washington. p. 157.

[1935] "THE PRAIRIE PENINSULA WITH OUTLIERS"
black and white [1:5,700,000, not 1:1,000,000 as stated]

LEGEND

1. [Prairie]

TRANSEAU, EDGAR NELSON, ROBERT B. GORDON and S. N. DICKEN

1935 In Transeau, Edgar Nelson, "The prairie peninsula." *Ecology*, vol. 16, facing p. 424. (Portion reprinted, 1959 1:6,260,000, in Dean, Donald S., "Distribution of tetraploid and diploid *Tradescantia ohioensis* in Michigan and adjoining areas." *American Midland Naturalist*, vol. 61, p. 205.)

[1939] "ORIGINAL FOREST COVER [OF IOWA, ILLINOIS, INDIANA, OHIO, MISSOURI, WESTERN KENTUCKY, WESTERN TENNESSEE, AND NORTHERN ARKANSAS]"
in color [1:84,000,000]

LEGEND

- | | |
|------------------------------|-------------------------|
| 1. Beech-maple forest | 4. Oak-pine forest |
| 2. Mixed hardwood forest | 5. Swamp or bottom land |
| 3. Oak or oak-hickory forest | 6. Tall grass prairie |

ANON.

1940 *Report of the Central States Forest Experiment Station, 1938-1939.* Columbus, Ohio, Central States Forest Experiment Station, on first cover.

- [1939] "MAJOR FOREST TYPES" [AREA: EASTERN OKLAHOMA, EASTERN TEXAS,
AND SOUTHERN ARKANSAS TO GEORGIA AND FLORIDA]
in color [1:12,500,000]

LEGEND

- | | |
|-------------------------|--|
| 1. Longleaf-slash pine | 3. Shortleaf-loblolly [pine]-
hardwoods |
| 2. Bottomland hardwoods | 4. Upland hardwoods |

UNITED STATES. *Forest Survey. Southern Forest Experiment Station*

1940 Nineteenth annual report. Southern Forest Exp. Sta., on front cover.

- [1939] "MAJOR FOREST TYPES IN THE TENNESSEE VALLEY REGION"
in color [1:2,180,000]

LEGEND

- | | |
|-------------------------|--|
| A. Hardwoods | B. Mixed |
| 1. Upland hardwoods | 5. Shortleaf pine, hardwoods |
| 2. Oak chestnut | 6. Shortleaf loblolly pine,
hardwoods |
| 3. Scrub oak | C. Coniferous |
| 4. Bottomland hardwoods | 7. Longleaf pine |

TENNESSEE VALLEY AUTHORITY. *Forest Resources Planning Division*

1939 [Separately published.] Knoxville, Tennessee Valley Authority, Department of Forestry Relations.

- 1940 "THE GRASSLAND BIOME AND ITS ASSOCIATIONS (PRAIRIE)"
black and white 1:25,000,000

LEGEND

- | | |
|------------------------|---------------------------|
| 1. Short-grass plains | 3. Tallgrass prairie |
| 2. Mixed-grass prairie | 4. Prairie-forest ecotone |

CARPENTER, J. RICHARD

1940 "The Grassland Biome." *Ecological Monographs*, vol. 10, p. 665.

- [1940] "LOCATION OF PRINCIPAL FORESTS OF NORTHERN HARDWOODS [IN MINNESOTA, WISCONSIN AND MICHIGAN]"
black and white [1:8,500,000]

LEGEND

1. Northern hardwoods
2. Primarily agricultural land 15-50 percent in northern hardwoods

EYRE, F. H. and W. M. ZILLGITT

1953 *Partial cuttings in northern hardwoods of the Lake States, twenty-year experimental results*. U. S. Dept. Agr., Tech. Bull. no. 1076, p. 8.

- 1940 "DISTRIBUTION OF FORESTS IN THE LAKE STATES [OF MINNESOTA, WISCONSIN, AND MICHIGAN]"
in color 1:2,000,000

CENTRAL UNITED STATES

LEGEND

1. Agricultural and industrial areas
2. Northern hardwoods
3. Primarily agricultural land, with 15 to 50% of area supporting northern hardwoods
4. Aspen, pincherry, highland or swamp brush, open or nonregenerating areas, muskeg
5. Primarily agricultural land, with 15 to 50% of area as above
6. Oak
7. Primarily agricultural land, with 15 to 50% of area supporting oak
8. Lowland hardwoods, river bottoms
9. Primarily agricultural land with 15 to 50% of area supporting lowland hardwoods, river bottoms
10. Pine
11. Primarily agricultural land with 15 to 50% of area supporting pine
12. Spruce, balsam, tamarack, cedar
13. Primarily agricultural land with 15 to 50% of area supporting spruce, balsam, tamarack, cedar

UNITED STATES. *Forest Survey. Lake States Forest Experiment Station*

1940 In Cunningham, R. N., and H. C. Moser, *Forest areas and timber volumes in the Lake States*. St. Paul, Minn., Lake States Forest Exp. Sta., Econ. Note no. 10. Also published separately by the same agency.

- [1941] "PLANT ASSOCIATIONS IN OKLAHOMA [KANSAS] AND ADJACENT STATES"
black and white [1:12,500,000]

LEGEND

- | | |
|-----------------------|------------------------|
| 1. Forest | 4. Mixed-grass prairie |
| 2. Savannah | 5. Sand-prairie |
| 3. Tall-grass prairie | 6. Short-grass prairie |

BRAGG, ARTHUR N. and CHARLES CLINTON SMITH

1943 "Observations on the ecology and natural history of Anura, IV. The ecological distribution of toads in Oklahoma." *Ecology*, vol. 24, p. 287.

- 1941 "AREAS CHARACTERIZED BY PRINCIPAL FOREST TYPES IN THE TENNESSEE VALLEY"
in color 1:633,600

LEGEND

- | | |
|----------------------------|---------------------------|
| A. Hardwood types | 9. Spruce-fir |
| 1. Bottomland hardwoods | 10. Loblolly pine |
| 2. Northern hardwoods | 11. Yellow pines |
| 3. Upland hardwoods | 12. Cedar |
| 4. Oak-chestnut | C. Mixed types |
| 5. Blackjack oak-hardwoods | 13. Hemlock-hardwoods |
| B. Coniferous types | 14. White pine-hardwoods |
| 6. Hemlock-white pine | 15. Yellow pine-hardwoods |
| 7. Hemlock | 16. Cedar-hardwoods |
| 8. White pine | |

TENNESSEE VALLEY AUTHORITY

1941 Department of Forestry Relations. Knoxville, Tenn.

- [1950] "THE GRASSLAND OF ANGLO-AMERICA EAST OF THE ROCKY MOUNTAINS"
black and white [1:31,700,000]

LEGEND

1. Steppe 2. Prairie

BORCHERT, JOHN R.

1950 "The climate of the central North American grassland." *Annals of the Association of American Geographers*, vol. 40, p. 2.

- [1950] "VEGETATION OF NORTH CENTRAL UNITED STATES"
black and white [1:8,500,000]

LEGEND

- | | |
|------------------------------|-------------------|
| A. Boreal conifer forest | 3. Pine subclimax |
| 1. Spruce-fir climax | 4. Oak subclimax |
| B. Deciduous hardwood forest | C. Grassland |
| 2. Maple climax | 5. Prairie climax |

CURTIS, JOHN T.

1950 *Plant ecology work book*. Minneapolis, Burgess Publishing Co., p. 30. (Reprinted 1956 in his *Plant ecology work book*, revised edition, p. 72.)

- 1951 "PRELIMINARY MAP OF THE WILDLIFE HABITAT TYPES OF THE ARKANSAS-WHITE-RED RIVER BASINS"
black and white 1:1,000,000

LEGEND

- | | |
|--|--|
| 1. Alpine type | 14. Mesquite grasslands (mixed grass-eroded plains type) |
| 2. Sub-alpine type | 15. Plains cedarbreak type |
| 3. Montane forest type | 16. Tallgrass plains type |
| 4. Piñon-juniper type | 17. Mesquite grasslands (tallgrass plains type) |
| 5. Oakbrush type | 18. Postoak-blackjack woodland type |
| 6. Shortgrass-highplains type | 19. Upland hardwood type |
| 7. Mesquite grasslands | 20. Bottomland type |
| 8. Highplains break type | 21. Shortleaf pine-hardwood type |
| 9. Plains sandhill type | 22. Loblolly pine-hardwood type |
| 10. Plains sandhill (undifferentiated) | 23. Cedarglade-hardwood type |
| 11. Sand sage | |
| 12. Shinnery oak | |
| 13. Mixed grass-eroded plains type | |

DUCK, LESTER G.

1951 The Fish and Wildlife Work Group; Arkansas, White, Red River Basins Interagency Committee.

- [1952] "[GENERALIZED MAP OF THE DISTRIBUTION OF FOREST TYPES IN THE LOWER SOUTH]"
black and white [1:8,700,000]

LEGEND

- | | |
|--------------------------|-------------------------|
| 1. Longleaf & slash pine | 4. Bottomland hardwoods |
| 2. Shortleaf & loblolly | 5. Coastal marsh |
| 3. Upland hardwoods | |

DUERR, WILLIAM A. and W. E. BOND

1952 "Private forest management in the American 'Lower South.'" *Unasyva*, vol. 6, p. 61.

[1952] "ARKANSAS-WHITE-RED RIVER BASINS, NATURAL VEGETATION MAP"

black and orange

[1:6,600,000]

LEGEND

- | | |
|--|---------------------------------------|
| A. Forest vegetation | 8. Oak-hickory |
| 1. Spruce-fir-lodge pole pine | B. Desert shrub vegetation |
| 2. Oak-pine | 9. Greasewood (salt desert shrub) |
| 3. Cypress-tupelo-red gum | C. Grass vegetation |
| 4. Longleaf-loblolly-slash pine | 10. Tall grass (prairie grassland) |
| 5. Chestnut-chestnut oak-yellow poplar | 11. Short grass (plains grassland) |
| 6. Yellow pine-Douglas fir | 12. Mesquite and desert grass savanna |
| 7. Pinion-juniper (SW coniferous woodland) | |

UNITED STATES. *Bureau of Land Management*

1952 In Anon., *Preliminary report of the Bureau of Land Management in Arkansas, White, and Red River Basins*. U. S. Dept. Interior, Bur. Land Management, Regions III-IV-V-VI, facing p. 3.

1954 "PLANT TYPES, OKLAHOMA, ARKANSAS, TEXAS, LOUISIANA"

in color

[1:6,000,000]

LEGEND

- | | |
|------------------------------|--|
| A. Desert plains grassland | 12. Bottomland hardwoods |
| 1. Rocky mountain foothills | 13. Gulf coast marshlands |
| B. Mixed prairie | E. Eastern forest belt |
| 2. High plains bluestem | 14. Mixed hardwood forest and savannah |
| 3. Shinnery oak savannah | 15. Prairies in forests and savannahs |
| 4. Post oak savannah | 16. Pine-hardwoods |
| 5. Rocky mountain foothills | 17. Bottomland hardwoods |
| C. True prairie | 18. Tall grass prairie |
| 6. Post oak savannah | 19. Shortleaf pine |
| 7. Hill country savannah | 20. Upland hardwoods |
| 8. Liveoak-post oak savannah | 21. Longleaf pine |
| 9. Bottomland hardwoods | 22. Cypress-tupelo swamp |
| 10. Pine-hardwoods | 23. Gulf coast marshlands |
| D. Coastal prairie | |
| 11. Post oak savannah | |

ALLRED, B. W. and HOMER C. MITCHELL

1954 *Major plant types of Arkansas, Louisiana, Oklahoma, and Texas*. Fort Worth, U. S. Dept. Agr., Soil Conserv. Serv., inserted at back. (Reprinted, 1955 black and white [1:7,900,000], in their "Major plant types of Arkansas, Louisiana, Oklahoma and Texas and

their relation to climate and soils." *Texas Jour. Sci.*, vol. 7, facing p. 9; section through central Texas and western Oklahoma reprinted, 1956 black and white [same scale], in Allred, B. W., "Mixed prairie in Texas." In Weaver, J. E., and F. W. Albertson, *Grasslands of the Great Plains, their nature and use*. Lincoln, Nebraska, Johnsen Publishing Co., p. 268.)

[1955] "VEGETATION REGIONS OF THE UPPER MIDWEST"
black and white [1:10,440,000]

LEGEND

- | | |
|---|--|
| <p>A. Grassland
1. Tall grass prairie</p> <p>B. Deciduous forest
2. Sugar maple, basswood, elm,
oak</p> | <p>3. Oak, aspen groves
C. Northern coniferous forest
4. Pine, spruce, fir, tamarack</p> |
|---|--|

ROSENDAHL, CARL OTTO

1955 *Trees and shrubs of the Upper Midwest*. Minneapolis, Univ. Minnesota Press, p. 13.

1955 "ARKANSAS-WHITE-RED RIVER BASINS: MAJOR FOREST TYPES"
black and white 1:5,260,000

LEGEND

- | | |
|---|--|
| <p>1. Spruce-fir
2. Yellow pine-Douglas fir
3. Piñon-juniper
4. Cross timbers</p> | <p>5. Upland hardwoods
6. Pine-hardwoods
7. Bottomland hardwoods</p> |
|---|--|

UNITED STATES. *Forest Service*

1955 *In Arkansas-White-Red River Basins Inter-Agency Committee, Report, Pt. 1*. Washington, D. C., plate 19.

[1956] "MAJOR FOREST TYPES IN THE SOUTH"
black and white [1:28,200,000]

LEGEND

- | | |
|--|--|
| <p>1. Longleaf-slash pine
2. Shortleaf-loblolly pine
3. Bottomland hardwoods</p> | <p>4. Upland hardwoods
5. Cedar
6. Prairie and marshland</p> |
|--|--|

BURKE, HUBERT D.

1956 *Wildlife habitat research needs in southern forests*. Southern

[1959] "MAJOR FOREST TYPES OF SOUTH ARKANSAS AND NORTH LOUISIANA"
Forest Exp. Sta., Occas. Paper no. 149, p. 2.
black and white [1:2,600,000]

LEGEND

- | | |
|---|--|
| <p>1. Loblolly-shortleaf pine
2. Longleaf-slash pine
3. Oak-hickory</p> | <p>4. Oak-gum-cypress
5. Less than 10 percent forest</p> |
|---|--|

CENTRAL UNITED STATES

REYNOLDS, R. R.

1959 *Eighteen years of selection timber management on the Crossett Experimental Forest*. U. S. Dept. Agr., Tech. Bull. no. 1206, p. 4.

- [1960] "MAJOR SOIL ASSOCIATIONS AND TIMBER TYPES IN THE COASTAL PLAIN"
green, black and white [1:16,800,000]

LEGEND

1. Shortleaf-loblolly pine 2. Longleaf-slash pine

HALLS, L. K., R. H. HUGHES and F. A. PEEVY

1960 *Grazed firebreaks in southern forests*. U. S. Forest Serv., Agr. Information Bull. no. 226, p. 2.

- [1960] "TERRITORY SERVED BY SOUTHERN FOREST EXPERIMENT STATION"
in color [1:3,900,000]

LEGEND

1. Shortleaf-loblolly pine-
hardwoods 3. Oak-hickory
2. Longleaf-slash pine 4. Oak-gum-cypress
5. Non-forest

ANON.

1961 In Briegleb, Philip A., "1960 at the Southern Forest Experiment Station." *Southern Forest Exp. Sta., Ann. Rept. for 1960*, facing p. 1.

- 1963 "MAJOR FOREST TYPES IN THE SOUTH"
in color 1:2,500,000

LEGEND

1. White pine-hemlock 6. Oak-hickory
2. Longleaf-slash pine 7. Oak-gum-cypress
3. Loblolly-shortleaf pine 8. Productive reserved forest land
4. Oak-pine 9. Unproductive forest land
5. Cedar 10. Non-types

HEDLUND, ARNOLD and PAUL JANSSEN

1963 *Major Forest Types in the South*. New Orleans, La., Southern Forest Experiment Station and Asheville, N.C., Southeastern Forest Experiment Station.

EASTERN UNITED STATES

- 1881 "MAP OF NEW HAMPSHIRE AND VERMONT SHOWING THE DISTRIBUTION OF THE PINE AND SPRUCE FORESTS, WITH SPECIAL REFERENCE TO THE LUMBER INDUSTRY"
in color [1:1,500,000]

LEGEND

1. Standing spruce (*Picea nigra*) and hardwoods
2. Areas originally occupied by white pine (*Pinus strobus*) and now containing considerable amounts of second growth pine of different ages
3. Areas containing considerable bodies of hardwoods, from which the spruce has been removed

SARGENT, CHARLES SPRAGUE

1884 *Report on the forests of North America (exclusive of Mexico)*. U. S. Dept. Interior, Census Office, Tenth Census of the U. S., vol 9, facing p. 497.

- [1901] "NORFOLK PENINSULA [VIRGINIA AND NORTH CAROLINA], SHOWING FRESH AND SALT WATER MARSHES, SAND DUNES, AND UPLANDS"
black and white [1:241,000]

LEGEND

1. Fresh water marshes
2. Salt water marshes
3. Sand dunes

KEARNEY, THOMAS H.

1901 "Report on a botanical survey of the Dismal Swamp Region." *Contrib. U. S. Natl. Herbarium*, vol. 5, following p. 550.

- 1910 "MAP OF THE COASTAL PLAIN BETWEEN THE JAMES AND SAVANNAH RIVERS SHOWING VEGETATION PROVINCES AND ROUTES OF EXPLORATION"
black and white [1:6,300,000]

LEGEND

1. Oak and beech flats of eastern N. C.
2. Flat pine woods with *Pinus taeda*
3. Red hills, etc. (Eocene?)
4. Fall-line sand-hills
5. Wilmington pine-barrens
6. Pine-barrens with *Pinus elliottii*
7. Coast region of S. C. and Ga.
8. (Altamaha Grit region of Ga.)

HARPER, ROLAND M.

1910 "A quantitative study of the more conspicuous vegetation of certain natural subdivisions of the coastal plain, as observed in traveling from Georgia to New York in July." *Bull. Torrey Bot. Club*, vol.

37, p. 407. (Reprinted, 1911 same scale, *in his* "Notes on the distribution of some plants observed in traveling through the coastal plain from Georgia to New York in July, 1909." *Ibid.*, vol. 37 (1910), p. 592.)

- [1912] "THE FOREST REGIONS OF NEW ENGLAND"
in color [1:4,500,000]

LEGEND

- | | |
|-----------------------|---------------------|
| 1. White pine | 3. Sprout hardwoods |
| 2. Northern hardwoods | 4. Spruce |

HAWLEY, RALPH CHIPMAN and AUSTIN FOSTER HAWES

1912 *Forestry in New England*. New York, John Wiley and Sons, preceding p. 475.

- [1924] "MAP SHOWING THE GEOGRAPHICAL AREA [NORTHEASTERN UNITED STATES, FROM MINNESOTA AND KANSAS TO ATLANTIC COAST] COVERED BY THIS MANUAL"
black and white [1:28,500,000]

LEGEND

- | | |
|--------------------|----------------------------|
| 1. Northern forest | 2. Central hardwood forest |
|--------------------|----------------------------|

BERRY, JAMES BERTHOLD

1924 *Northern woodlot trees, a guide to the identification of trees and woods to accompany farm woodlands, a handbook for students, teachers, farmers and woodsmen*. Yonkers-on-Hudson, New York, World Book Co., p. 9.

- [1924] "MAP SHOWING THE GEOGRAPHICAL AREA [FROM SOUTHERN NEW JERSEY TO CENTRAL TEXAS] COVERED BY THIS MANUAL"
black and white [1:28,000,000]

LEGEND

- | | |
|----------------------------|--------------------|
| 1. Central hardwood forest | 3. Tropical forest |
| 2. Southern forest | |

BERRY, JAMES BERTHOLD

1924 *Southern woodland trees, a guide to the identification of trees and woods to accompany farm woodlands, a handbook for students, teachers, farmers and woodsmen*. Yonkers-on-Hudson, New York, World Book Co., p. 9.

- [1927] "NATURAL FOREST REGIONS OF NEW ENGLAND"
black and white [1:5,600,000]

LEGEND

- | | |
|----------------------------------|-----------------------|
| 1. Spruce and northern hardwoods | 3. Hardwoods |
| 2. White pine | 4. Scrub pine and oak |

BALDWIN, HENRY I. and CHARLES F. BROOKS

1936 *Forests and floods in New Hampshire*. Boston, Massachusetts.
New England Regional Planning Comm., Publ. no. 47, p. [31].

[1927] "NEW ENGLAND FOREST REGIONS"

black and white

[1:5,300,000]

LEGEND

- | | |
|----------------------------------|----------------------------|
| 1. Spruce and northern hardwoods | 3. Sprout hardwoods |
| 2. White pine | 4. Cape Cod [pine and oak] |

STICKEL, P. W.

1933 In Fisher, R. T., "New England forests: biological factors."
In Wright, John K. (ed.), *New England's prospect: 1933*. Amer.
Geogr. Soc., Spec. Publ. no. 16, p. 214.

1928 "VEGETATION MAP OF THE EASTERN UNITED STATES"

black and white

[1:30,000,000]

LEGEND

- | | |
|-----------------------------|-------------------------------|
| 1. Plains grasslands | 4. Northern evergreen forests |
| 2. Prairie grasslands | 5. Spruce-fir forests |
| 3. Deciduous forests | 6. Post oak-prairie savanna |
| a. Beech-maple | 7. S. E. evergreen forests |
| b. Beech-maple-hemlock-pine | 8. Mesquite-plains savanna |
| c. Oak-hickory | |

TRANSEAU, EDGAR N.

1928 In Sampson, H. C., and E. N. Transeau, "Original plant associations as indices to biotic habitats with special reference to the corn borer." In Huber, L. L., C. R. Neiswander, and R. M. Salter, *The European corn borer and its environment*. Ohio Agr. Exp. Sta., Bull. no. 429, p. 153.

[1930] "FOREST REGIONS IN NORTHEASTERN UNITED STATES"

black and white

[1:8,500,000]

LEGEND

1. Spruce-fir forests

WESTVELD, MARINUS

1930 *Suggestions for the management of spruce stands in the Northeast*. U. S. Dept. Agri., Circ. no. 134, p. 2.

[1931] "DIAGRAM OF THE DECIDUOUS FOREST BIOME AND ADJACENT COMMUNITIES"

black and white

[1:3,100,000]

LEGEND

- | | |
|--------------------------|-----------------------------------|
| 1. Flood plain subclimax | 6. Pine-subclimax |
| 2. Subclimax grassland | 7. Oak and pine-subclimax |
| 3. Oak-hickory | 8. Moist coniferous forest climax |
| 4. Oak-chestnut | 9. Climax grassland |
| 5. Beech-maple | 10. Magnolia-bay-holly climax |
- } Probable
} climax areas

SHELFORD, VICTOR E.

1931 "Some concepts of bioecology." *Ecology*, vol. 12, p. 459.

[1933] "THE SOUTHERN APPALACHIAN PIEDMONT"

black and white

[1:8,900,000]

LEGEND

- | | |
|---|---------------------------------------|
| 1. Chestnut, chestnut oak, yellow poplar | 3. Oak and pine |
| 2. Birch, beech, maple, hemlock, oak, and hickory | 4. Longleaf, loblolly, and slash pine |
| | 5. Cypress, tupelo, and red gum |
| | 6. Marsh grass |
- After map of the United States by Shantz and Zon (1923).

LEMERT, BEN F.

1934 "Furniture industry of the Southern Appalachian Piedmont." *Economic Geography*, vol. 10, p. 184.

[1934] "BOUNDARIES OF THE BEECH-BIRCH-MAPLE-HEMLOCK FOREST REGION, SOUTHERN LIMIT OF GLACIATIONS . . . OF THE NORTHERN ALLEGHENY PLATEAU"

black and white

[1:3,300,000]

LEGEND

1. Allegheny hardwoods-hemlock forest types
2. Oak-chestnut-yellow poplar forest types

HOUGH, A. F. and R. D. FORBES

1943 "The ecology and silvics of forests in the High Plateaus of Pennsylvania." *Ecological Monographs*, vol. 13, p. 302. (Reprinted, 1950 [1:4,200,000], in Braun, E. Lucy, *Deciduous forests of eastern North America*. Philadelphia, The Blakiston Co., p. 394.)

[1935] "THE PRINCIPAL FOREST REGIONS OF SOUTHERN NEW ENGLAND"

black and white

[1:2,600,000]

LEGEND

- | | |
|---------------|--------------------|
| 1. Oak | 3. Northern forest |
| 2. White pine | |

BROMLEY, STANLEY W.

1935 "The original forest types of southern New England." *Ecological Monographs*, vol. 5, p. 70. (Reprinted, 1950 1:3,050,000, in Braun, E. Lucy, *Deciduous forests of eastern North America*. Philadelphia, Blakiston Div., McGraw-Hill Book Co., p. 250.)

[1935] "LOCATIONS OF CERTAIN FOREST TYPES IN SOUTHERN NEW ENGLAND"

black and white

[1:2,600,000]

LEGEND

- | | |
|----------------------|------------------------------|
| 1. Mixed mesophytic | 3. Spruce-fir |
| 2. Pitch pine plains | 4. <i>Chamaecyparis</i> bogs |

BROMLEY, STANLEY W.

1935 "The original forest types of southern New England." *Ecological Monographs*, vol. 5, p. 77.

- [1937] "UPLAND OAK FORESTS"
black and white [1:23,800,000]

LEGEND

- | | |
|-------------------------------|----------------|
| 1. Oak-chestnut-yellow poplar | 2. Oak-hickory |
|-------------------------------|----------------|

SCHNUR, G. LUTHER

1937 *Yield, stand, and volume table for even-aged upland oak forests*. U. S. Dept. Agr., Tech. Bull. no. 560, p. 2.

- [1937] "NATURAL VEGETATION AREAS OF SOME NORTHEASTERN STATES"
black and white [1:10,200,000]

LEGEND

- | | |
|--|---------------------------------------|
| 1. Red spruce-balsam fir forests | 5. Oak-hickory forests |
| 2. Hemlock-red spruce-northern hardwoods | 6. Mixed mesophytic hardwoods |
| 3. Hemlock-white pine-northern hardwoods | 7. Pitch pines and southern hardwoods |
| 4. Beech forests and deciduous swamp forests | 8. Pitch pine "Barrens" |

GORDON, ROBERT B.

1937 *The botanical survey of the Allegany State Park*. New York State Mus., Handb. no. 17, p. 34.

- [1938] "FORESTS OF SOUTHEASTERN UNITED STATES"
black and white [1:18,400,000]

LEGEND

- | | |
|---|---|
| 1. Coniferous forest; beech, birch, maple [not distinguished] | 6. Prairie grasslands with wooded valleys |
| 2. Oak, hickory and their associates | 7. Southeastern pine forest |
| 3. Chestnut, chestnut oak and poplar | 8. Marsh grassland |
| 4. Oak and pine | 9. Desert savanna |
| 5. Cypress, tupelo and red gum | 10. Plains grassland |
| | 11. Southern desert shrub etc. |

FENNEMAN, NEVIN M.

1938 *Physiography of Eastern United States*. New York, McGraw-Hill Book Co., p. 691.

- [1938] "FORESTS OF NORTHEASTERN UNITED STATES"
black and white [1:17,700,000]

LEGEND

- | | |
|---|---------------------------------------|
| 1. Mainly coniferous forest | 5. Oak and pine |
| 2. Beech, birch, maple, (areas of pine) | 6. River bottom forest, cypress, etc. |

EASTERN UNITED STATES

- 3. Oak, hickory and their associates
- 4. Chestnut, chestnut oak and poplar

- 7. Prairie grasslands with wooded valleys

FENNEMAN, NEVIN M.

1938 *Physiography of Eastern United States*. New York, McGraw-Hill Book Co., p. 690.

- [1939] "OUTLINE MAP OF SOUTHEASTERN NEW YORK AND ADJACENT NEW ENGLAND"

black and white

[1:2,500,000]

LEGEND

- 1. Southern species; sweet gum, willow oak, persimmon, etc.
- 2. Chestnut, oaks, hickories, tulip poplar, etc.
- 3. Sugar maple, beech, yellow birch, hemlock, white pine, etc.
- 4. Dominant trees of zone [3], plus red spruce, balsam fir, and paper birch
- 5. Canadian zone, red spruce, balsam fir, paper birch, mountain ash, etc.

EGLER, FRANK E.

1940 "Berkshire Plateau vegetation, Massachusetts." *Ecological Monographs*, vol. 10, p. 160.

- 1942 "ALLEGHENY SECTION: MAJOR FOREST FORMATIONS"

black and white

1:2,000,000

LEGEND

- 1. Red spruce
- 2. Beech-birch-maple-hemlock
- 3. White pine
- 4. Oak
- 5. Shortleaf pine-Virginia pine-oak
- 6. Loblolly pine-hardwoods (hard pine-oak)
- 7. Bottomland hardwoods
- 8. Marsh or beach

SOCIETY OF AMERICAN FORESTERS

1942 Washington, D. C.

- [1946] "MAJOR FOREST TYPES IN THE SOUTHERN PINE TERRITORY"

black and white

[1:15,100,000]

LEGEND

- 1. Longleaf and slash pine
- 2. Bottomland hardwoods
- 3. Loblolly-shortleaf hardwoods
- 4. Upland hardwoods
- 5. Black belt
- 6. Everglades
- 7. Prairie or marsh

WAHLENBERG, W. G.

1946 *Longleaf pine, its use, ecology, regeneration, protection, growth, and management*. Washington, Charles Lathrop Pack Foundation, in cooperation with the U. S. Forest Serv., p. 1.

- [1950] "FOREST TYPES IN SOUTH GEORGIA AND NORTH FLORIDA"

black and white

[1:6,600,000]

LEGEND

- | | |
|------------------------------|------------------------------|
| 1. Longleaf-slash [pine] | 4. Scrub pine |
| 2. Longleaf-slash-cypress | 5. Cypress-hardwoods & marsh |
| 3. Loblolly [pine]-hardwoods | |

McCULLEY, R. D.

1950 *Management of natural slash pine stands in the flatwoods of south Georgia and north Florida*. U. S. Dept. Agr., Circ. no. 845, p. 52.

[1953] "PRINCIPAL FOREST TYPES OF NEW ENGLAND"

black and white

[1:7,800,000]

LEGEND

- | | |
|------------------------------------|--|
| 1. Spruce-fir | 4. Central hardwoods |
| 2. Northern hardwoods | 5. Transition from hardwoods to pine-oak |
| 3. White pine-transition hardwoods | 6. Pine-oak |

ANON.

1953 *Facts about forests of New England*. Washington, Amer. Forest Products Industries, Inc., p. 3.

[1954] "SOUTHERN FOREST TYPES"

black and white

[1:30,000,000]

LEGEND

- | | |
|-------------------|----------------------|
| 1. Pine | 3. Hardwoods |
| 2. Pine-hardwoods | 4. Prairie-grassland |

ANON.

[1954] *Southern forest facts, 1953-54* edition. Washington, Amer. Forest Products Industries, Inc., p. 4.

[1954] "RANGE TYPES OF THE SOUTH"

black and white

[1:13,600,000]

LEGEND

- | | |
|-------------------------------------|----------------------------------|
| 1. Upland hardwoods-bluestem | 5. Longleaf-slash pine-wiregrass |
| 2. Bottomland hardwoods and cane | 6. Cedar-bluestem |
| 3. Shortleaf-loblolly pine-bluestem | 7. Everglades |
| 4. Longleaf pine-bluestem | 8. Prairie and marsh |

WILLIAMS, R. E., JOHN T. CASSADY, LOWELL K. HALLS and E. J. WOLFFOLK

1955 *Range resources of the South*. Southern Section, Amer. Soc. Range Management, in cooperation with Univ. Georgia, Agr. Exp. Sta., Bull. N. S. no. 9, p. 7.

[1954] "VEGETATION AND TOPOGRAPHIC MAP OF THE ROAN MOUNTAIN AREA [NORTH CAROLINA AND TENNESSEE]"

black and white

[1:15,800]

LEGEND

- | | |
|----------------------|-----------------------|
| 1. Spruce fir forest | 3. Grass bald |
| 2. Hardwood forest | 4. Grass (deforested) |

MARK, A. F.

1958 "The ecology of the southern Appalachian grass balds." *Ecological Monographs*, vol. 28, p 310.

- [1955] "FOREST GRAZING TYPES OF SOUTHEASTERN UNITED STATES"
black and white [1:21,000,000]

LEGEND

- | | |
|----------------------------|------------------------|
| 1. Upland hardwoods | 4. Longleaf-slash pine |
| 2. Bottomland hardwoods | 5. Virginia pine |
| 3. Shortleaf-loblolly pine | 6. Cedar |

CAMPBELL, R. S.

1955 *In* Stoddart, L. A., and A. D. Smith, *Range management*. New York, McGraw-Hill Book Co., p. 87.

- 1955 "NATURAL FOREST VEGETATION ZONES OF NEW ENGLAND"
in color [1:1,200,000]

LEGEND

- | | |
|--|---|
| 1. Spruce-fir-northern hardwoods | 4. Central hardwoods-hemlock-white pine |
| 2. Northern hardwoods-hemlock-white pine | 5. Central hardwoods-hemlock |
| 3. Transition hardwoods-white pine-hemlock | 6. Pitch pine-oak |

SOCIETY OF AMERICAN FORESTERS. *New England Section. Committee on Silviculture*

1955 [Separately published.] (Reprinted, 1956 [1:2,300,000], black and white, *in* Westveld, Marinus, *et al.*, "Natural forest vegetation zones of New England." *Journal of Forestry*, vol. 54, pp. 336-337.)

- 1955-1956 "MAP OF LITTLE RIVER AREA [AUGUSTA AND ROCKINGHAM COUNTIES], VIRGINIA, [AND PENDLETON COUNTY, WEST VIRGINIA], SHOWING FOREST TYPES AND 1949 FLOOD DAMAGE"
in color 1:31,680

LEGEND

1. Northern hardwood forest type
Basswood (*Tilia americana*), sugar-maple (*Acer saccharum*), and yellow birch (*Betula lutea*), or any one of the three are present. Pitch-pine (*Pinus rigida*) and table-mountain pine (*Pinus pungens*) absent, or very rare. Usually contains red oak (*Quercus rubra*) and, in some places, chestnut-oak (*Q. prinus*); other species of oak absent; oaks generally few in number. Ground cover consists of ferns and thin-leaved herbaceous plants; climbing vines common. Characteristic of hollows, channelways, and flood plains
2. Yellow pine forest type
Pitch-pine (*Pinus rigida*) and table-mountain pine (*P. pungens*), or either one of the two, are present. Basswood, sugar-maple, and yellow birch absent to very rare. Usually contains several species of oak (chestnut-oak, red oak,

black oak—*Quercus velutina*, and scarlet oak—*Q. coccinea*) in the canopy layer and often scrub-oak (*Q. ilicifolia*) in the brushy understory layer. Ground cover brushy with heath plants (Ericaceae) abundant. Characteristic of noses

3. Oak forest type

Pitch-pine, table-mountain pine, basswood, sugar-maple, and yellow birch absent or very rare. Forest consists largely of oaks (chestnut-oak, red oak, black oak, scarlet oak, and white oak—*Q. alba*). Ground cover generally ericaceous. Characteristic of side slopes

HACK, JOHN T. and JOHN C. GOODLETT

1960 *Geomorphology and forest ecology of a mountain region in the central Appalachians*. U. S. Geol. Surv., Prof. Paper no. 347, in pocket.

[1957] "THE UPLAND"
green and white

[1:1,600,000]

LEGEND

1. Oak-hickory

2. Pitch pine

NIERING, WILLIAM A.

1960 *Nature in the metropolis, conservation in the tri-state New York metropolitan region*. New York, Regional Plan Assoc., Inc., p. 21.

[1958] "VEGETATION REGIONS [OF NEW ENGLAND]"
black and white

[1:5,600,000]

LEGEND

1. Spruce-hardwoods

2. Hemlock-white pine-northern hardwoods

3. Oak-chestnut or sprout hardwoods

THOMPSON, BETTY FLANDERS

1958 *The changing face of New England*. New York, Macmillan Co., p. 102.

ALABAMA

- 1881 "MAP OF ALABAMA SHOWING THE DISTRIBUTION OF THE PINE FORESTS,
WITH SPECIAL REFERENCE TO THE LUMBER INDUSTRY"
in color [1:2,600,000]

LEGEND

1. Short leaved or yellow pine (*Pinus mitis*)
2. Long leaved pine (*Pinus palustris*)
3. Long leaved pine (*Pinus palustris*) with hardwoods in about equal proportion
4. Region from which merchantable pine has been cut
5. Cypress swamps

SARGENT, CHARLES SPRAGUE

1884 *Report on the forests of North America (exclusive of Mexico)*.
U. S. Dept. Interior, Census Office, Tenth Census of the U. S., vol. 9,
facing p. 524.

- 1934 "AREAS CHARACTERIZED BY THE MAJOR FOREST TYPES, STATE OF ALABAMA"
in color 1:1,000,000

LEGEND

- | | |
|---------------------------------|-------------------------------|
| 1. Longleaf | 5. Loblolly-hardwoods |
| 2. Longleaf-slash | 6. Mixed upland hardwoods |
| 3. Shortleaf-hardwoods | 7. Mixed bottomland hardwoods |
| 4. Shortleaf-loblolly-hardwoods | 8. Prairie or marsh |

UNITED STATES. *Forest Survey. Southern Forest Experiment Station*

1934 Southern Forest Experiment Station, U. S. Forest Service.
New Orleans, La.

- 1935 "AREAS CHARACTERIZED BY MAJOR FOREST TYPES IN SOUTHEAST ALABAMA"
green and white [1:1,700,000]

LEGEND

- | | |
|--|--------------------------------|
| 1. Longleaf pine | 4. Loblolly pine & hardwoods |
| 2. Longleaf & slash pines | 5. Mixed bottom-land hardwoods |
| 3. Shortleaf & loblolly pines &
hardwoods | |

UNITED STATES. *Forest Survey. Southern Forest Experiment Station*

1939 *In Spillers, A. R., Forest resources of southeast Alabama*.
Southern Forest Exp. Sta., Forest Surv. Release no. 47, p. 3.

- 1936 "AREAS CHARACTERIZED BY MAJOR FOREST TYPES IN NORTH CENTRAL ALABAMA"
green, black, and white [1:1,700,000]

LEGEND

- | | |
|-------------------------------|--|
| 1. Longleaf pine | 3. Shortleaf & loblolly pines
& hardwoods |
| 2. Shortleaf pine & hardwoods | |

UNITED STATES. *Forest Survey. Southern Forest Experiment Station*

1940 In Cruikshank, James W., *Forest resources of north central Alabama*. Southern Forest Exp. Sta., Forest Surv. Release no. 50, p. 9.

- 1936 "AREAS CHARACTERIZED BY MAJOR FOREST TYPES IN WEST CENTRAL ALABAMA"
green, black, and white [1:1,400,000]

LEGEND

- | | |
|-------------------------------|--|
| 1. Longleaf pine | 3. Shortleaf & loblolly pines &
hardwoods |
| 2. Shortleaf pine & hardwoods | 4. Mixed bottom-land hardwoods |

UNITED STATES. *Forest Survey. Southern Forest Experiment Station*

1940 In Spillers, A. R., *Forest resources of west central Alabama*. Southern Forest Exp. Sta., Forest Surv. Release no. 48, p. 3.

- 1936 "AREAS CHARACTERIZED BY THE MAJOR FOREST TYPES IN THE TENNESSEE VALLEY AREA OF NORTH ALABAMA"
green and white [1:1,300,000]

LEGEND

- | | |
|---|--------------------------------|
| 1. Shortleaf pine & hardwoods | 3. Loblolly pine & hardwoods |
| 2. Shortleaf & loblolly pine &
hardwoods | 4. Mixed upland hardwoods |
| | 5. Mixed bottom-land hardwoods |

UNITED STATES. *Forest Survey. Southern Forest Experiment Station*

1940 In Cruikshank, James W., *Forest resources of the Tennessee Valley area of north Alabama*. Southern Forest Exp. Sta., Forest Surv. Release no. 49, p. 11.

- 1937 "AREAS CHARACTERIZED BY THE MAJOR FOREST TYPES IN SOUTHWEST ALABAMA"
green and white [1:1,800,000]

LEGEND

- | | |
|------------------------------|----------------------------|
| 1. Longleaf-slash | 3. Mixed bottomland hdwds. |
| 2. Shortleaf-loblolly hdwds. | |

UNITED STATES. *Forest Survey. Southern Forest Experiment Station*

1938 In Spillers, A. R., *Forest resources of southwest Alabama*. Southern Forest Exp. Sta., Forest Surv. Release no. 35, p. 6.

- 1942 "REGIONAL MAP OF ALABAMA"
black and white [1:4,000,000]

LEGEND

- | | |
|---|--------------------------------------|
| 1. The central short-leaf pine belt . . . | 3. The post-oak flatwoods . . . |
| 2. The black belt . . . | 4. The southwestern pine hills . . . |

Also shows 16 other geographic regions, the forests of which are described in the text

HARPER, ROLAND M.

1943 *Forests of Alabama*. Geol. Surv. Alabama, Monogr. no. 10, p. 65.

[1953] "MAJOR FOREST TYPES IN ALABAMA"

in color

[1:2,500,000]

LEGEND

- | | |
|----------------------------|-----------------------------------|
| 1. Longleaf-slash pine | 4. Oak-hickory |
| 2. Loblolly-shortleaf pine | 5. Oak-gum-cypress |
| 3. Oak-pine | 6. Nontyped, less than 10% forest |

WHEELER, PHILIP R.

1953 *Forest statistics for Alabama*. Southern Forest Exp. Sta., Forest Surv. Release no. 73, p. 3. (Reprinted, 1957 [1:1,800,000], in York, Harvan F., *100 forest trees of Alabama*. Montgomery, Alabama Dept. Conserv., Div. Forestry, frontispiece.)

[1955] "ALABAMA'S FOREST TYPES"

black and white

[1:12,900,000]

LEGEND

- | | |
|-------------------------|----------------------------|
| 1. Upland hardwoods | 3. Shortleaf-loblolly pine |
| 2. Bottomland hardwoods | 4. Longleaf-slash pine |

ANON.

[1955] *Alabama forest facts*. Washington, Amer. Forest Products Industries, Inc., p. 5.

ALASKA

- [1901] "MAP OF ALASKA SHOWING FORESTED AREAS"
in color [1:16,200,000]

LEGEND

- | | |
|--------------------|---------------------|
| 1. Interior forest | 3. Forestless areas |
| 2. Coast forest | |

FERNOW, B. E.

1902 "Forests of Alaska." *In* Dall, Wm. H., *et al.*, *Alaska, history, geography, resources*. New York, Doubleday, Page & Co., vol. 2, facing p. 235.

- [1906] "SKETCH MAP SHOWING DISTRIBUTION OF FORESTS AND OF GLACIERS AND SNOW FIELDS"
in color [1:9,750,000]

LEGEND

- | | |
|---------------------------|----------------------------|
| 1. Timbered area | 4. Tundra |
| 2. Sparsely timbered area | 5. Glaciers and snowfields |
| 3. Area above timber | |

BROOKS, ALFRED H.

1906 *The geography and geology of Alaska, a summary of existing knowledge*. U. S. Geol. Surv., Prof. Paper no. 45, following p. 38. (Reprinted, 1910 *in* Kellogg, R. S., *The forests of Alaska*. U. S. Dept. Agr., Forest Serv., Bull. no. 81, frontispiece.)

- [1909] "MAP SHOWING DISTRIBUTION OF TIMBER IN FAIRBANKS QUADRANGLE [LATITUDE 64° TO 66° NORTH, LONGITUDE 146° TO 150° WEST]"
black and white [1:1,070,000]

LEGEND

1. Lowland swamp and meadow with heavy growths of large trees (chiefly spruce) along banks of streams
2. Small spruce, birch, and poplar forest on slopes
3. Above timber line

PRINDLE, L. M.

1913 *A geologic reconnaissance of the Fairbanks Quadrangle, Alaska*. U. S. Geol. Surv., Bull. no. 525, facing p. 26.

- [1911] "MAP SHOWING DISTRIBUTION OF TIMBER IN THE CIRCLE QUADRANGLE

[BETWEEN THE YUKON AND TANANA RIVERS, FROM LONGITUDE 142° TO 146° WEST, LATITUDE 64° TO 66° NORTH]"

black and white

[1:1,950,000]

LEGEND

1. Above timber line
2. Small spruce, birch, and poplar forest on slopes
3. Lowland, swamp, and meadow with heavy growths of large trees, chiefly spruce, along banks of streams

PRINDLE, L. M.

1913 *A geologic reconnaissance of the Circle Quadrangle, Alaska.* U. S. Geol. Surv., Bull. no. 538, p. 20.

[1913] "SKETCH MAP SHOWING THE DISTRIBUTION OF SPRUCE TIMBER IN THE BROAD PASS REGION [LATITUDE 62° 57' TO 63° 51' N., LONGITUDE 147° 25' TO 149° 15' W.]"

black and white

[1:900,000]

LEGEND

- | | |
|--|-----------------------|
| 1. Timbered area, chiefly scattered spruce | 2. Thicker timber |
| | 3. [Timberless areas] |

MOFFIT, FRED H.

1915 *The Broad Pass Region, Alaska.* U. S. Geol. Surv., Bull. no. 608, p. 18.

[1914] "MAP SHOWING DISTRIBUTION OF TIMBER IN THE YUKON-KOYUKUK AND ADJACENT REGIONS [LATITUDE 64° 40' TO 66° 30' N., LONGITUDE 149° TO 158° W.]"

black and white

[1:3,000,000]

LEGEND

1. Timbered area [principally spruce and birch]
2. Untimbered area
3. Unexplored, probably mostly timbered

EAKIN, HENRY M.

1916 *The Yukon-Koyukuk Region, Alaska.* U. S. Geol. Surv., Bull. no. 631, p. 20.

[1915] "MAP SHOWING DISTRIBUTION OF TIMBER IN THE RUBY-KUSKOKWIM REGION [LATITUDE 61° 40' TO 65° N., LONGITUDE 153° 30' TO 158° 20' W.]"

black and white

[1:2,400,000]

LEGEND

- | | |
|----------------------------------|-----------------------------|
| 1. Timbered area [mostly spruce] | 3. Mostly timbered, but ... |
| 2. [Untimbered] | unsurveyed |

MERTIE, J. B., JR. and G. L. HARRINGTON

1924 *The Ruby-Kuskokwim Region, Alaska.* U. S. Geol. Surv., Bull. no. 754, p. 87.

[1915] "SKETCH MAP SHOWING DISTRIBUTION OF SPRUCE TIMBER IN UPPER CHITINA VALLEY [LATITUDE 60° 50' TO 61° 30' N., LONGITUDE 141° TO 143° W.]"

black and white

1:500,000

LEGEND

1. Spruce timber

2. [Untimbered]

MOFFIT, FRED H.

1918 *The Upper Chitina Valley, Alaska*. U. S. Geol. Surv., Bull. no. 675, facing p. 14.

1921 "GLACIER BAY, ALASKA"

black and white

[1:375,000]

LEGEND

1. Old climax forest

3. Alder-willow thicket

2. Young climax forest

COOPER, WILLIAM SKINNER

1923 "The recent ecological history of Glacier Bay, Alaska: I. The interglacial forests of Glacier Bay." *Ecology*, vol. 4, facing p. 93.

[1923] "FORESTS OF ALASKA"

in color

[1:16,900,000]

LEGEND

1. Pacific coast forest (Sitka spruce-hemlock)

2. Interior arctic forest (spruce-birch)

3. Interior arctic forest (spruce-birch) sparsely timbered

4. Tundra and areas above timber line

ZON, RAPHAEL and WILLIAM N. SPARHAWK

1923 *Forest resources of the world*. New York, McGraw-Hill Book Co., Inc., vol. 2, facing p. 556.

1924 "ALASKA SHOWING DISTRIBUTION OF VEGETATION"

black and white

[1:27,000,000]

LEGEND

1. Forest province of southern coast

2. Grass land province of southern coast

3. Tundras

4. Woodland province of inland region

5. Alpine province and area above timber

BROOKS, ALFRED H.

1925 "The future of Alaska." *Annals of the Association of American Geographers*, vol. 15, p. 170.

[1926] "SKETCH MAP SHOWING DISTRIBUTION OF SPRUCE . . . IN NORTHWESTERN ALASKA [LATITUDE 66° TO 71° N., LONGITUDE 150° TO 170° W.]"

black and white

[1:6,500,000]

LEGEND

1. [Spruce timber]

SMITH, PHILIP S. and J. B. MERTIE, JR.

1930 *Geology and mineral resources of northwestern Alaska*. U. S. Geol. Surv., Bull. no. 815, p. 73.

[1930] “[FOREST REGIONS OF ALASKA]”

black and white

[1:61,600,000]

LEGEND

1. Coastal forest

2. Interior forest

UNITED STATES. *Forest Service*1930 *In Graves, Henry S., “Forests.” In Havemeyer, Loomis (ed.), Conservation of our natural resources*. New York, Macmillan Co., facing p. 230, inset.

[1932] “SKETCH MAP SHOWING THE DISTRIBUTION OF TIMBER IN THE CURRY DISTRICT [LATITUDE 63° 35' TO 63° N., LONGITUDE 149° 40' TO 150° 50' W.]”

black and white

[1:700,000]

LEGEND

1. Area in which timber [chiefly white spruce, birch, and cottonwood] occurs

2. [Untimbered]

TUCK, RALPH

1934 *The Curry District, Alaska*. U. S. Geol. Surv., Bull. no. 857-C, p. 111.

[1935] “DISTRIBUTION OF ALASKAN VEGETATIVE TYPE-COVER IN GENERAL AND APPROXIMATE LOCATION OF THE TUNDRA”

black and white

[1:14,000,000]

LEGEND

1. Tundra

2. Boreal forest (interior, woodland, tundra, alpine meadows, and grassland)

3. Coast forest

PALMER, LAWRENCE J. and CHARLES H. ROUSE

1945 *Study of the Alaska tundra with reference to its reactions to reindeer and other grazing*. U. S. Fish and Wildlife Serv., Research Rept. no. 10, following p. 2.

[1935] “SKETCH MAP SHOWING DISTRIBUTION OF TIMBER IN THE NUSHAGAK DISTRICT [LATITUDE 58° 40' TO 60° 40' N., LONGITUDE 156° 40' TO 159° 21' W.]”

black and white

[1:1,400,000]

LEGEND

1. [Timber, spruce, poplar, and birch]

2. [Untimbered]

MERTIE, J. B., JR.

1938 *The Nushagak District, Alaska*. U. S. Geol. Surv., Bull. no. 903, facing p. 29.

- [1935] "MAP OF PART OF THE FORESTLAND EAST OF THE LOWER BAY, ADJACENT TO BARTLETT COVE [GLACIER BAY]"
black and white [1:61,000]

LEGEND

1. Forest, with some alder thicket
2. Open willow thicket, meadow, bog
3. Sandy surfaces, bare or with pioneer vegetation

COOPER, WILLIAM S.

1939 "A fourth expedition to Glacier Bay, Alaska." *Ecology*, vol. 20, p. 134.

- [1936] "LOCATION AND EXTENT OF THE PREVAILING FOREST REGIONS IN ALASKA"
black and white [1:23,800,000]

LEGEND

1. Coast forest
2. Interior forest

MATTOON, WILBUR F.

1936 *Forest trees and forest regions of the United States*. U.S. Dept. Agr., Misc. Publ. no. 217, p. 47. (Reprinted as inset map, 1948 green and white [1:31,700,000], "Forest regions of the United States." Separately published, U.S. Govt. Printing Office, map no. 0-807577).

- [1942] "HEAD OF COLLEGE FIORD, PRINCE WILLIAM SOUND, ALASKA"
black and white [1:104,000]

LEGEND

1. Forest
2. Old alder thicket
3. Young alder thicket

COOPER, WILLIAM SKINNER

1942 "Vegetation of the Prince William Sound Region, Alaska: with a brief excursion into post-Pleistocene history." *Ecological Monographs*, vol. 12, p. 12.

- [1948] "MAP OF ALASKA SHOWING DISTRIBUTION OF VEGETATIVE COVER"
black and white [1:13,000,000]

LEGEND

1. Timber, coastal, hemlock-spruce dense forests along the southern coast
2. Timber, interior, spruce-birch sparse forests
3. Timber, interior, spruce-birch dense forests
4. Tundra, coastal plains and western islands

PURDUE UNIVERSITY. *Engineering Experiment Station*

1949 *In* Stoeckeler, E. G., *Identification and evaluation of Alaskan vegetation from airphotos with reference to soil, moisture, and perma-*

frost condition, a preliminary paper. St. Paul, Minnesota, Dept. Corps of Engineers, St. Paul District, Field Operations Branch, Permafrost Div. [Arctic Construction and Frost Effects Laboratory Report no. TR-21], p. 1. (Reprinted, 1950 [1:5,100,000], in Engineering Experiment Station, Purdue University, *Evaluation of soils and permafrost conditions in the Territory of Alaska by means of aerial photographs*, vol. 11. St. Paul, Minnesota, Dept. Corps of Engineers, St. Paul District, Airfields Branch, Engineering Div., Military Construction, Rept. no. Tr-34, in pocket.)

[1949] "SEWARD PENINSULA, ALASKA"

black and white

[1:2,200,000]

LEGEND

1. Treeless

2. Spruce

SIGAFOOS, ROBERT S.

1951 "Soil instability in tundra vegetation." *Ohio Jour. Sci.*, vol. 51, p. 282. (Reprinted, 1951 [1:2,300,000], in Hopkins, D. M., and Robert S. Sigafos, *Frost action and vegetation patterns on Seward Peninsula, Alaska*. U.S. Geol. Surv., Bull. no. 974-C, p. 56.)

[1950] "TANANA VALLEY—NATURAL VEGETATION"

black and white

[1:67,000]

LEGEND

1. Interior forest, white spruce,
birch and poplar2. Vegetation influenced by man
3. Black spruce and brush

MILLER, E. WILLARD

1951 "Agricultural developments in interior Alaska." *Scientific Monthly*, vol. 73, p. 247.

[1951] "COASTAL PLAIN VEGETATION AT POINT BARROW AREA"

black and white

[1:54,500]

LEGEND

1. Moist polygonal meadow
2. Sandy beach3. Upland meadows on moderately
drained ridges and valley slopes
4. Wet sedge meadow

SPETZMAN, LLOYD A.

1959 *Vegetation of the arctic slope of Alaska. Exploration of naval petroleum reserve no. 4 and adjacent areas, northern Alaska, 1944-53. Part 2, regional studies.* U. S. Geol. Surv., Prof. Paper no. 302-B, p. 31.

[1951] "MOUNTAIN VEGETATION AT ANAKTUVUK PASS"

black and white

[1:77,600]

LEGEND

1. Dry meadows, local brush

5. Icefield

- | | |
|---|---|
| 2. Flood-plain vegetation | 6. Sparse vegetation on outcrops
and talus |
| 3. Wet sedge meadow | |
| 4. Shifting sand | |
| Also indicates distribution of willow, poplar, and alder. | |

SPETZMAN, LLOYD A.

1959 *Vegetation of the arctic slope of Alaska. Exploration of naval petroleum reserve no. 4 and adjacent areas, northern Alaska, 1944-53. Part 2, regional studies.* U. S. Geol. Surv., Prof. Paper no. 302-B, p. 34.

[1951] "FOOTHILLS VEGETATION AT NOLUCK LAKE"

black and white

[1:63,400]

LEGEND

- | | |
|---|----------------------------|
| 1. Niggerhead meadow | 4. Late ice and snow areas |
| 2. Flood-plain vegetation | 5. Wet sedge meadow |
| 3. Dry meadows, including vegetation on outcrops and rubble | |

SPETZMAN, LLOYD A.

1959 *Vegetation of the arctic slope of Alaska. Exploration of naval petroleum reserve no. 4 and adjacent areas, northern Alaska, 1944-53. Part 2, regional studies.* U. S. Geol. Surv., Prof. Paper no. 302-B, p. 34.

1953 "WHITTIER, ALASKA, VEGETATION"

green and white

[1:71,400]

LEGEND

- | | |
|--------------------------|----------------------|
| 1. Hemlock and muskeg | 4. Alpine vegetation |
| 2. Hemlock and alder | 5. Snow alder |
| 3. Timberline transition | |

THOMPSON, WILL F.

1954 *Environmental handbook for Whittier, Alaska.* Natick, Massachusetts, Headquarters Quartermaster Res. & Develop. Command, Environmental Protection Div., Rept. no. 226, p. 15.

1954 "BIG DELTA (ALASKA) TEST AREA, VEGETATION"

in color

1:177,000

LEGEND

- | | |
|-----------------------|-------------------|
| 1. Tall forest | 4. Sedge, tussock |
| 2. Mixed short forest | 5. Tundra |
| 3. Mixed scrub forest | |

DE PERCIN, FERNAND *and others*

1955 *Handbook of Big Delta, Alaska, environment.* Natick, Mass., Quartermaster Research and Development Division, Technical Report EP-5, p. 9.

1956 "ALASKA: FOREST REGIONS"

black and white

[1:14,346,000]

LEGEND

- | | |
|----------------------------------|--|
| 1. Hemlock-spruce coastal forest | 3. Spruce-birch interior forest,
sparse |
| 2. Spruce-birch interior forest | |

TAYLOR, RAYMOND F.

1956 "Alaska." *In* Haden-Guest, Stephen, John W. Wright and Eileen M. Teclaff (eds.), *A world geography of forest resources*. New York, Ronald Press Co., p. 116.

1956 "MT. HAYES (D-4) QUADRANGLE, ALASKA"

in color

1:50,000

LEGEND

Forest

1. Evergreen forest. Composed of needle-leaved, evergreen, coniferous trees (white spruce and black spruce).
2. Mixed evergreen-deciduous forest. Composed of both evergreen coniferous trees and deciduous broadleaved trees, the smaller components constituting at least 10 percent of the trees. In Tanana Valley includes some larch (deciduous needle-leaved conifer).
3. Deciduous forest. Composed of deciduous broad-leaved trees (white birch, aspen, balsam poplar). Includes willows of tree stature.
4. Black spruce muskeg. Community characterized by black spruce in swamp forest structure or scrub with spongy moss-lichen bog-like ground cover.

Scrub and/or shrub

5. Evergreen scrub. White spruce or black spruce trees either in young stands or stunted (as those near the altitudinal limit of trees).
6. Mixed evergreen-deciduous scrub and/or shrub. Young white spruce or black spruce mixed with deciduous scrub and/or shrub.
7. Deciduous scrub and/or shrub. Deciduous scrub (young, stunted, or severely browsed deciduous trees) and/or shrubs (willows, alders, glandular birch, and heath shrubs).

Tundra

8. Shrub tundra. Matted or tussocky turf or mosses, lichens, small sedges and grasses, and forbs, in which low or creeping or mat-like shrubs are rooted.
9. Rock desert. Incomplete cover consisting of mosses and lichens (in mats or cushion), sedges and grasses (in tufts), forbs (in rosettes or cushions) and shrubs (low, creeping or matted).
10. Bog. Nearly continuous ground cover of mosses in which low shrubs and a few species of grasses are rooted; humus beneath the ground cover (heath shrubs, glandular birch, dwarf birch, crowberry) and/or sedges perennially waterlogged.

Meadow

11. Meadow. Grasses and erect forbs, sometimes with thin soil cover of lichens and mosses; luxuriance varies from sparse lawn to tall lush hay meadow.
12. Marsh. Sedges, and less commonly grasses, in relatively uniform stands on wet or seasonally inundated sites; forms heavy sod or fibrous turf that usually is waterlogged.

Vegetation of local significance

13. Lichen barrens. Plant communities of fruticose (and in places including some crustose) lichens, forming incomplete cover on gravel surfaces; lo-

cally accompanied by scattered mat shrubs (bearberry) or tufted plants (small grasses, etc.)

14. Aquatic communities. Submersed vegetation (Nitella, bladderwort, pondweeds, etc.) and emergent vegetation (water knotweed, yellow pond lily, etc.) in localities observed on the ground or where aquatic vegetation could be observed in aerial photographs.

Areas not mapped with respect to vegetation

15. Barren flood plain areas. Areas on flood plains where no significant vegetation was observed.
16. Areas disturbed by culture. No significant vegetation present (bare areas) or patterns too complex to map at this scale.

BENNINGHOFF, WILLIAM S.

1957 *Terrain Study of the Army Test Area, Fort Greely, Alaska*, chapter 9: Vegetation. Washington. Waterways Experiment Station, Corps of Engineers, U. S. Army. In pocket at end.

[1956] "VEGETATION MAPS OF A FLATS AREA"

black and white 4 maps: [1:36,000]; [1:6,970]; [1:3,480]; [1:6,970]

LEGEND

- | | |
|------------------------------------|-------------------------------------|
| 1. <i>Picea glauca</i> | 6. <i>Carex aquatilis</i> |
| 2. <i>Picea mariana</i> | 7. Sedge meadow |
| 3. Low brush | 8. <i>Carex rostrata</i> |
| 4. <i>Calamagrostis canadensis</i> | 9. Flooded bog |
| 5. <i>Carex paludivagans</i> | 10. Emergent aquatics or open water |

DRURY, WILLIAM H., JR.

1956 "Bog flats and physiographic processes in the Upper Kuskokwim River Region, Alaska." In Rollins, Reed C., and Robert C. Foster (eds.), *Contributions from the Gray Herbarium of Harvard University*, no. 178. Cambridge, Massachusetts, p. [42].

[1956] "VEGETATION MAPS OF BOG RIDGE AREAS [UPPER MAP REPRESENTS BOG AREA AT THE TOP OF MAP A; LOWER MAP REPRESENTS UPPER LEFT PART OF MAP B (MAPS A AND B PAGE [42] in DRURY)]"

black and white [1:740]

LEGEND

- | | |
|--|--|
| 1. <i>Carex limosa</i> , wet meadow | 4. <i>Carex rotundata</i> , wet meadow |
| 2. <i>Myrica-Spiraea, Vaccinium</i> ridge | 5. Black spruce, strang |
| 3. <i>Carex limosa, Carex paludivagans, Carex livida, Eriophorum, Menyanthes</i> , wet centers | 6. <i>Scirpus-Myrica</i> , low brush |

DRURY, WILLIAM H., JR.

1956 "Bog flats and physiographic processes in the Upper Kuskokwim River Region, Alaska." In Rollins, Reed C., and Robert C. Foster (eds.), *Contributions from the Gray Herbarium of Harvard University*, no. 178. Cambridge, Massachusetts, p. 49.

ALASKA

1960 "VEGETATION MAP OF THE OGOTORUK CREEK DRAINAGE"
blue and white 1:20,000

LEGEND

- | | |
|---|--------------------------------------|
| 1. <i>Dryas</i> fellfield | 7. Ericaceous polygon |
| 2. <i>Eriophorum-Carex</i> wet meadow | 8. Saline meadow |
| 3. <i>Eriophorum</i> tussock | 9. <i>Dryas</i> step and stripe |
| 4. Wet meadow-tussock, alternating streaks | 10. Snow-bed communities |
| 5. <i>Eriophorum-Carex</i> solifluction slope | 11. Gravel bar and bench communities |
| 6. <i>Carex bigelowii</i> high center polygon | 12. Talus slope communities |
| | 13. Ecotone communities |

UNIVERSITY OF ALASKA. *Department of Biological Sciences*

1960 College, Alaska. University of Alaska.

1963 "TERRAIN STUDIES OF ALASKA, PART V: VEGETATION"
in color 1:2,500,000

LEGEND

- | | |
|---|---------------------------------|
| 1. Very high evergreen hemlock-spruce forest | 5. High brush |
| 2. High evergreen spruce forest | 6. Low-brush muskeg |
| 3. Moderately high mixed evergreen and deciduous forest | 7. Moist tundra |
| 4. Low mixed evergreen and deciduous forest | 8. Wet tundra and coastal marsh |
| | 9. Barren and sparse dry tundra |

SPETZMAN, LLOYD A.

1963 *Terrain study of Alaska, part V: vegetation.* (Engineer Intelligence Study.) Office, Chief of Engineers, Dept. of the Army, Washington, D. C.

ARIZONA

1904 "DOMINANT VEGETATION ON THE SANTA RITA EXPERIMENTAL RANGE IN 1904"

black and white

[1:634,000]

LEGEND

- | | |
|------------------|--------------|
| 1. Burroweed | 4. Grassland |
| 2. Cholla | 5. Mesquite |
| 3. Creosote bush | |

GRIFFITHS, DAVID

1958 *In* Humphrey, Robert R., and L. A. Mehrhoff, "Vegetation changes on a southern Arizona grassland range." *Ecology*, vol. 39, p. 721.

[1909] "DESERT LABORATORY DOMAIN AND VICINITY, SHOWING APPROXIMATE DISTRIBUTION OF *prosopis velutina* OVER AN AREA OF ABOUT 1,800 ACRES"

red, black, and white

[1:20,700]

LEGEND

1. Mesquite woods
2. No mesquite
3. Small plants growing singly or in small clumps, very widely scattered or rare

SPALDING, VOLNEY M.

1909 *Distribution and movements of desert plants*. Carnegie Inst. Washington, Publ. no. 113, facing page 36. (Reprinted, 1927 [1:36,600], black and white, *in* Meinzer, Oscar Edward, *Plants as indicators of ground water*. U. S. Geol. Surv., Water Supply Paper no. 577, p. 44.)

1913 "MAP OF SULPHUR SPRING VALLEY, ARIZONA, SHOWING GEOLOGY AND VEGETATION"

in color

1:250,000

LEGEND

1. No vegetation
 2. Areas covered with mesquite (*Prosopis velutina*)
 3. Area covered with sagebrush (*Artemisia filifolia*)
- Vegetation of other areas described in paragraph which accompanies legend.

MEINZER, OSCAR EDWARD and F. C. KELTON

1913 *Geology and water resources of Sulphur Spring Valley, Arizona*. U. S. Geol. Surv., Water-Supply Paper no. 320, inserted at back.

(Reprinted, 1927 [1:407,000], black and white, in Meinzer, Oscar Edward, *Plants as indicators of ground water*. U. S. Geol. Surv., Water Supply Paper no. 577, p. 47.)

- 1915 "MAP SHOWING THE DISTRIBUTION OF THE IMPORTANT PLANT COMMUNITIES IN A SMALL AREA IN THE GILA VALLEY [PINAL AND MARICOPA COUNTIES]"
black and white [1:280,000]

LEGEND

- | | |
|------------------|----------------------------------|
| 1. Creosote bush | 4. Original vegetation destroyed |
| 2. Desert-sage | 5. Chamiso (sand bars) |
| 3. Saltbush | 6. Saltgrass |

SHANTZ, H. L. and R. L. PIEMEISEL

1924 "Indicator significance of the natural vegetation of the southwestern desert region." *Journal of Agricultural Research*, vol. 28, p. 730.

- 1931 "MAP OF KAIBAB PLATEAU, ARIZONA, SHOWING TOWNSHIPS, GENERAL VEGETATIONAL TYPES"
black and white 1:520,000

LEGEND

- | | |
|------------------|--------------------|
| 1. Spruce-fir | 4. Mountain meadow |
| 2. Yellow pine | 5. Sagebrush |
| 3. Piñon-juniper | 6. Grassland |

RASMUSSEN, D. IRWIN

1941 "Biotic communities of Kaibab Plateau, Arizona." *Ecological Monographs*, vol. 11, p. 233.

- [1934] "VEGETATION COVER TYPES [ARIZONA]"
black and white [1:3,000,000]

LEGEND

1. Southern desert
2. Northern desert (sagebrush—saltbrush and coleogyne)
3. Grass land
4. Montane forest (mostly ponderosa pine—a little spruce-fir)
5. Piñon-juniper woodland
6. Chaparral and oak woodland

McGINNES, WILLIAM G.

1936 "Non-irrigated farm areas, forest, range, watershed, game, recreation and desert areas." In Smith, G. E. P., and W. A. Steenbergen, "Land-use problem areas in Arizona." In *Land use planning, water resources, flood control, power*. Arizona State Planning Board, Rept., vol. 2, p. 49.

- [1937] "PRINCIPAL PLANT COVER OF RANGE AREAS IN SOUTHEASTERN ARIZONA [EAST OF THE PAPAGO INDIAN RESERVATION AND SOUTH OF THE TONTO AND CROOK NATIONAL FORESTS AND SAN CARLOS INDIAN RESERVATION]"
black and white [1:1,600,000]

LEGEND

1. Creosotebush, balance snakeweed, mesquite, cactus & minor species; trace of grass
2. Blackbrush, balance creosotebush, mesquite, snakeweed, burroweed, & minor species. Some grass
3. Cactus, balance mixed composition of many species. Some grass
4. Saltbush, traces of mesquite, creosotebush, and grass
5. Woodland-timber, browse and grass beneath
6. Mesquite, balance burroweed, snakeweed, & minor species. Some grass
7. Burroweed, balance mesquite, snakeweed, blackbrush, & minor species. Some grass
8. Grassland, three-quarters grass, balance mesquite, burroweed, snakeweed, & minor species

UPSON, ARTHUR, W. J. CRIBBS and E. B. STANLEY

1937 *Occurrence of shrubs on range areas in southeastern Arizona.* Arizona Agric. Exp. Sta. [mimeographed publication], p. 5.

1939 "DETAILS IN THE TALLAHOGAN DUNE AREA [NAVAJO COUNTY]"
black and white [1:4,300]

LEGEND

1. Free dunes (little vegetation)
2. Parabolic dunes (*Poliomintha* dominant) (bush mint)
3. Parabolic dunes (*Chrysothamnus* dominant) (rabbit brush)
4. Parabolic dunes (*Artemisia filifolia* dominant) (sand sage)
5. (Dune hollow complex)
6. Fixed dunes (*Artemisia tridentata*) (common sage-grama grass)
Also indicates position of juniper trees.

HACK, JOHN T.

1941 "Dunes of the western Navajo Country." *Geographical Review*, vol. 31, p. 252.

1943 "ARIZONA, NATURAL VEGETATION"
in color 1:2,756,000

LEGEND

- | | |
|--------------------------------------|------------------------------------|
| Forests | 5. Desert grass (mesquite) |
| 1. Forest trees, mainly yellow pines | Desert |
| 2. Piñon-juniper | 6. Northern desert (sagebrush) |
| 3. Chaparral & oak woodland | 7. Mesquite & saltbush bottoms |
| Grasses | 8. Palo verde, cacti and burr sage |
| 4. Short grass (plains) | 9. Creosote bush-salt bush |
| | 10. Irrigated land |

NICHOL, A. A.

1943 *The natural vegetation of Arizona.* University of Arizona, Agric. Exp. Sta. Technical Bulletin no. 68, inserted between pp. 200 & 201.

[1944] "RANGE-TYPE MAP OF COCHISE COUNTY"
in color [1:439,000]

LEGEND

- | | |
|--------------------------------|-----------------------------|
| 1. Conifer | 10. Saltbush |
| 2. Oak woodland | 11. Creosote bush |
| 3. Chaparral & mountain browse | 12. Cultivated |
| 4. Inaccessible | 13. Grassland, desert shrub |
| 5. Grassland | 14. Oak woodland, grass |
| 6. Desert shrub | 15. Desert shrub, grassland |
| 7. Half shrub | 16. Saltbush, mesquite |
| 8. Barren | 17. Mesquite, half shrub |
| 9. Mesquite | |
- Also indicates occurrence of 19 important grazing and weed species

DARROW, ROBERT A.

1944 *Arizona range resources and their utilization. I. Cochise County.* Univ. Arizona Exp. Sta., Tech. Bull. no. 103, inserted at back.

1950 "PRINCIPAL VEGETATION TYPES IN ARIZONA"
black and white 1:5,100,000

LEGEND

- | | |
|---|--|
| 1. Ponderosa pine forest (incl. Douglas fir and spruce-fir forests) | 6. Sagebrush |
| 2. Pinyon-juniper woodland | 7. Irrigated land |
| 3. Oak woodland and chaparral | 8. Desert (creosote bush, desert saltbush) |
| 4. Short grass | 9. Desert (mesquite-saltbush bottoms) |
| 5. Desert grass | 10. Desert (palo verde, cacti, bur sage) |

LITTLE, ELBERT E.

1950 *Southwestern Trees.* Washington, D. C., U. S. Department of Agriculture, Handbook no. 9, p. 8.

[1950] "YAVAPAI COUNTY FORAGE TYPES"
black and white [1:475,000]

LEGEND

- | | |
|---------------------|-------------------|
| 1. Desert shrub | 4. Piñon-juniper |
| 2. Grassland | 5. Chaparral |
| 3. Desert grassland | 6. Ponderosa pine |

HUMPHREY, ROBERT R.

1950 *Arizona range resources II. Yavapai County. A study in range conditions.* Univ. Arizona, Agr. Exp. Sta., Bull. no. 229, inserted at back.

1952 "YUMA [ARIZONA] TEST AREA, VEGETATION"
green and white [1:188,000]

LEGEND

- | | |
|---------------------------|----------------------------|
| 1. Dense marsh plants | 4. Sparse shrubs and trees |
| 2. Cultivated crops | 5. Sparse shrubs |
| 3. Dense shrubs and trees | 6. Very sparse shrubs |

UNITED STATES. *Army. Quartermaster Research and Development Command*

1954 *Handbook of Yuma environment*. Natick, Massachusetts, U. S. Army, Headquarters Quartermaster Res. & Develop. Command, Environmental Protection Div., Rept. no. 200, p. 10.

- 1954 "DOMINANT VEGETATION ON THE SANTA RITA EXPERIMENTAL RANGE IN 1954"
black and white [1:634,000]

LEGEND

1. Either burrowweed, cholla, creosote bush, mesquite or a combination of two or more of these
2. Grassland

HUMPHREY, ROBERT R. and L. A. MEHRHOFF

1958 "Vegetation changes on a southern Arizona grassland range."
Ecology, vol. 39, p. 721.

- 1954 "DISTRIBUTION OF VEGETATION TYPES AND YIELD STUDY PLOT LOCATIONS, DEFIANCE UPLIFT AND ADJACENT AREA [ARIZONA]"
black and white 1:392,000

LEGEND

1. Grassland and shrub
2. Pinyon
3. Ponderosa

DEAVER, CHESTER F. and HORACE S. HASKELL

1955 *Pinyon resources. Distribution of pinyon (Pinus edulis), yield and resin potentialities, Navajo-Hopi Reservations, Arizona-Utah*. Tucson, Univ. of Arizona Press, p. 15.

- 1954 "DISTRIBUTION OF VEGETATION TYPES, NA-A-TIH CANYON AREA [ARIZONA]"
black and white 1:259,000

LEGEND

1. Grassland and shrub
2. Pinyon-juniper

DEAVER, CHESTER F. and HORACE S. HASKELL

1955 *Pinyon resources. Distribution of pinyon (Pinus edulis), yield and resin potentialities, Navajo-Hopi Reservations, Arizona-Utah*. Tucson, Univ. of Arizona Press, p. 23.

- 1954 "DISTRIBUTION OF VEGETATION TYPES ON KAIBITO PLATEAU AND VICINITY, INCLUDING NORTHERN BLACK MESA [ARIZONA]"
black and white 1:500,000

LEGEND

1. Grassland and shrub
2. Pinyon

DEAVER, CHESTER F. and HORACE S. HASKELL

1955 *Pinyon resources. Distribution of pinyon (Pinus edulis), yield*

and resin potentialities, Navajo-Hopi Reservations, Arizona-Utah.
Tucson, Univ. of Arizona Press, p. 19.

- [1955] "RANGE FORAGE TYPES COCONINO, NAVAJO, AND APACHE COUNTIES"
in color [1:762,000]

LEGEND

- | | |
|--------------|-------------------|
| 1. Grassland | 3. Juniper-pinyon |
| 2. Timber | 4. Browse |

HUMPHREY, ROBERT R.

1955 *Forage production on Arizona ranges IV. Coconino, Navajo, Apache Counties. A study in range conditions.* Univ. Arizona, Agr. Exp. Sta., Bull. no. 266, inserted at back.

- [1955] "VEGETATION TYPES OF THE HUACHUCA MOUNTAINS"
black and white [1:280,000]

LEGEND

- | | |
|-----------------------------|-------------------------|
| 1. Desert scrub & grassland | c. Conifer-chaparral |
| a. Desert scrub | d. Pine-oak woodland |
| b. Desert grassland | 3. Forest |
| 2. Encinal | a. Pine-Douglas fir-oak |
| a. Oak woodland | b. Pine-fir forest |
| b. Woodland-chaparral | c. Aspen |

WALLMO, O. C.

1955 "Vegetation of the Huachuca Mountains, Arizona." *American Midland Naturalist*, vol. 54, p. 470.

- [1958] "ARIZONA CHAPARRAL AND OAK WOODLANDS"
black and green [1:4,900,000]

LEGEND

1. Chaparral and oak woodlands
Adapted from Nichols (1943), map of "Arizona natural vegetation."

SWANK, WENDELL G.

1958 *The mule deer in Arizona chaparral.* Phoenix, State of Arizona, Game and Fish Dept., Wildlife Bull. No. 3, p. 7.

- [1960] "RANGE FORAGE TYPES, PIMA AND SANTA CRUZ COUNTIES"
in color [1:731,000]

LEGEND

- | | |
|--------------------------|----------------------------------|
| 1. Southern desert shrub | 4. Woodland (pinyon-juniper-oak) |
| 2. Desert grassland | 5. Pine, fir |
| 3. Chaparral | 6. Cultivated land |

HUMPHREY, ROBERT R.

1960 *Forage production on Arizona ranges. V. Pima, Pinal and Santa Cruz Counties.* Univ. Arizona, Agr. Exp. Sta., Bull. no. 302, in pocket.

- [1960] "RANGE FORAGE TYPES, PINAL COUNTY"
in color [1:458,000]

LEGEND

- | | |
|----------------------------------|--------------------|
| 1. Southern desert shrub | 4. Pine, fir |
| 2. Desert grassland | 5. Chaparral |
| 3. Woodland (pinyon-juniper-oak) | 6. Cultivated land |

HUMPHREY, ROBERT R.

1960 *Forage production on Arizona ranges. V. Pima, Pinal and Santa Cruz Counties.* Univ. Arizona, Agr. Exp. Sta., Bull. no. 302, in pocket.

- [1961] "GRANITIC SOIL AREAS IN ARIZONA IN RELATION TO MAJOR DRAINAGES AND DISTRIBUTION OF CHAPARRAL"
black and white [1:5,200,000]

LEGEND

1. Chaparral areas

RICH, LOWELL R.

1961 *Surface runoff and erosion in the lower chaparral zone.* Rocky Mountain Forest and Range Exp. Sta., Sta. Paper no. 66, p. 2.

- 1962 "WALNUT EXPERIMENTAL WATERSHED"
black and white 1:232,000

LEGEND

1. *Acacia constricta* var. *vernicaosa*, *Flourensia cernua*, *Larrea divaricata*
2. *Mortonia scabrella*, *Acacia constricta* var. *vernicaosa*, *Larrea divaricata*, *Flourensia cernua*
3. *Quercus emoryi*, *Bouteloua curtipendula*
4. *Bouteloua eriopoda*, *B. radicata*, *Hilaria belangeri*
5. *Bouteloua gracilis*, *B. eriopoda*, *B. filiformis*
6. *Hilaria mutica*
7. *Hilaria mutica*, *Bouteloua curtipendula*

GARDNER, J. LINTON

1963 *Walnut Gulch Experimental Watershed.* Tucson. Agricultural Experiment Station, University of Arizona. p. 6.

ARKANSAS

- 1881 "MAP OF ARKANSAS SHOWING THE DISTRIBUTION OF THE FORESTS WITH SPECIAL REFERENCE TO THE LUMBER INDUSTRY"
in color [1:2,200,000]

LEGEND

1. Yellow pine (*Pinus mitis*) mixed south of the Arkansas River with some loblolly pine (*P. taeda*)
2. Hardwood
3. Region from which all merchantable pine has been cut
4. Prairie

SARGENT, CHARLES SPRAGUE

1884 *Report on the forests of North America (exclusive of Mexico)*. U. S. Dept. Interior, Census Office, Tenth Census of the U. S., vol. 9, facing p. 544.

- 1936 "AREAS CHARACTERIZED BY THE MAJOR FOREST TYPES IN THE NORTH ARKANSAS DELTA"
green, black and white 1:2,000,000

LEGEND

1. Mixed upland hardwoods
2. Oaks-mixed hardwoods
3. Red gum-mixed hardwoods
4. Cypress-tupelo gum

ELDRIDGE, I. F.

1938 *Forest resources of the North Arkansas delta*. Southern Forest Exp. Sta., Forest Surv. Release no. 32, facing p. 2.

- 1936 "AREAS CHARACTERIZED BY MAJOR FOREST TYPES IN SOUTHWESTERN ARKANSAS"
in color 1:1,000,000

LEGEND

1. Shortleaf-hardwood
2. Shortleaf-loblolly-hardwood
3. Loblolly-hardwood
4. Mixed upland hardwoods
5. Mixed bottomland hardwoods
6. Prairie

UNITED STATES. *Forest Survey. Southern Forest Experiment Station*

1936 Southern Forest Experiment Station, New Orleans, La. (Reprinted 1936 [1:1,600,000] in Eldredge, I. F., *Forest resources of the North Arkansas Delta*. Southern Forest Exp. Sta., Forest Survey Release no. 32, p. 3.)

- 1942-1947 "WILDLIFE AND COVER MAP OF ARKANSAS"
in color [1:461,000]

LEGEND

- | | |
|--------------------------------|-------------------------|
| 1. Shortleaf pine-hardwood | 5. Terrace hardwood |
| 2. Shortleaf-loblolly-hardwood | 6. Cedar-hardwood |
| 3. Upland hardwood | 7. Crowley's ridge type |
| 4. Bottom hardwood | |

ANON.

1948 [Separately published] Little Rock, Arkansas State Game and Fish Comm., in co-operation with U. S. Fish and Wildlife Serv.

- 1948 "GENERALIZED FOREST TYPES IN THE ARKANSAS OZARKS"
black and white 1:2,500,000

LEGEND

- | | |
|------------------------|-------------------|
| 1. Upland hardwood | 3. Shortleaf pine |
| 2. Bottomland hardwood | 4. Prairie |

DUERR, WILLIAM A.

1948 *Forest statistics for the Arkansas Ozarks*. Southern Forest Exp. Sta., Forest Surv. Release 57, p. 2.

- 1950 "GENERALIZED FOREST TYPES IN SOUTHWEST ARKANSAS"
in color 1:2,000,000

LEGEND

- | | |
|------------------------|-------------------------------------|
| 1. Upland hardwood | 3. Loblolly-shortleaf pine-hardwood |
| 2. Bottomland hardwood | 4. Shortleaf pine-hardwood |

DUERR, WILLIAM A.

1950 *Forest statistics for southwest Arkansas*. Southern Forest Exp. Sta., Forest Surv. Release 65, p. 4.

- [1951] "GENERALIZED FOREST TYPES IN ARKANSAS"
in color [1:2,500,000]

LEGEND

- | | |
|-------------------------------------|-----------------------------------|
| 1. Loblolly-shortleaf pine-hardwood | 3. Bottomland hardwood |
| 2. Upland hardwood | 4. Nontyped; less than 10% forest |

UNITED STATES. *Forest Survey. Southern Forest Experiment Station*

1953 *Forest statistics for Arkansas*. Southern Forest Exp. Sta., Forest Surv. Release no. 71, p. 4. (Reprinted, 1956 [1:2,800,000], in Sternitzke, Herbert S., *Timber supplies for industry in Arkansas*. U. S. Dept. Agr., Forest Resource Rept. no. 11, p. 32.)

- [1959] "MAJOR FOREST TYPES IN ARKANSAS"
in color [1:2,500,000]

LEGEND

- | | |
|----------------------------|--|
| 1. Loblolly-shortleaf pine | 4. Oak-gum-cypress |
| 2. Oak-pine | 5. Nontyped; less than 10 percent forest |
| 3. Oak-hickory | |

STERNITZKE, HERBERT S.

1960 *Arkansas forests*. Southern Forest Exp. Sta., unnumbered publ., p. 5.

CALIFORNIA

- [1850] "MAP SHOWING PRINCIPAL ORIGINAL TYPES OF VEGETATION IN THE SAN JOAQUIN VALLEY"
black and white [1:1,700,000]

LEGEND

- | | |
|----------------------|-------------------|
| 1. Tree savanna | 4. Spiny saltbush |
| 2. Pacific grassland | 5. Lowland types |
| 3. Desert saltbush | |

PIEMEISEL, R. L. and F. R. LAWSON

1937 *Types of vegetation in the San Joaquin Valley of California and their relation to the beet leafhopper.* U. S. Dept. Agr., Tech. Bull. no. 557, facing p. 2.

- 1870 "VEGETATION BOUNDARIES ABOUT 1870 ACCORDING TO G. F. BEARDSLEY"
black and white [1:200,000]

LEGEND

- | | |
|---------------|--------------|
| 1. Oak forest | 2. Chaparral |
|---------------|--------------|

SKINNER, WILLIAM S.

1926 "Vegetation development upon alluvial fans in the vicinity of Palo Alto, California." *Ecology*, vol. 7, p. 8.

- 1898 "SAN JACINTO FOREST RESERVE, CALIFORNIA"
in color 1:352,000

LEGEND

- | | |
|----------------------|--|
| 1. Coniferous forest | 3. Agricultural and grazing lands with no forest |
| 2. Chaparral | |

LEIBERG, J. B.

1900 *The San Jacinto Forest Reserve.* U. S. Geol. Surv., Ann. Rept. no. 20 (1898-1899), pt. 5 (Forest reserves), inserted between pp. 456-457.

- 1898 "SAN JACINTO FOREST RESERVE, CALIFORNIA, SHOWING DISTRIBUTION OF SPECIES"
in color [1:352,000]

LEGEND

- Mixed forest consisting of yellow, limber, lodgepole and big cone pine, incense cedar, white fir, big cone fir and oaks
- Pure forest growth consisting of single leaf piñon east of San Jacinto range, of Parry piñon west thereof

LEIBERG, J. B.

1900 *The San Jacinto Forest Reserve*. U. S. Geol. Surv., Ann. Rept. no. 20 (1898-1899), pt. 5 (Forest reserves), inserted between pp. 458-459.

1898 "SAN BERNARDINO FOREST RESERVE, CALIFORNIA"
in color 1:321,000

LEGEND

- | | |
|-------------------|------------|
| 1. Forested areas | 3. Meadows |
| 2. Chaparral | 4. Logged |

LEIBERG, J. B.

1900 *The San Bernardino Forest Reserve*. U. S. Geol. Surv., Ann. Rept. no. 20 (1898-1899), pt. 5 (Forest reserves), inserted between pp. 430-431.

1898 "SAN BERNARDINO FOREST RESERVE, CALIFORNIA, DISTRIBUTION OF SPECIES OF TREES"
in color [1:321,000]

LEGEND

1. Forest consisting of western yellow, lodgepole, limber, sugar, and big cone pine, big cone fir, incense cedar, white fir and oaks
2. Forest consisting of knobcone pine
3. Forest consisting of single leaf piñon, western juniper, California juniper and arborescent species of yucca

LEIBERG, J. B.

1900 *The San Bernardino Forest Reserve*. U. S. Geol. Surv., Ann. Rept. no. 20 (1898-1899), pt. 5 (Forest reserves), inserted between pp. 432-433.

1898 "SAN GABRIEL FOREST RESERVE, CALIFORNIA"
in color 1:321,000

LEGEND

- | | |
|-----------------|--------------|
| 1. Mixed forest | 2. Chaparral |
|-----------------|--------------|

LEIBERG, J. B.

1900 *The San Gabriel Forest Reserve*. U. S. Geol. Surv., Ann. Rept. no. 20 (1898-1899), pt. 5 (Forest reserves), inserted between pp. 414-415.

[1900] "MAP SHOWING GENERAL LOCATION OF BIG TREE GROVES, CALIFORNIA"
in color [1:900,000]

LEGEND

1. [Big tree groves]

UNITED STATES. *Department of Agriculture. Division of Forestry*

1900 *A short account of the big trees of California*. U. S. Dept. Agr., Div. of Forestry, Bull. no. 28, inserted between pp. 22 and 23.

CALIFORNIA

[1900] "MAP SHOWING LOCATION OF BIG TREE GROVES IN FRESNO AND TULARE COUNTIES, CALIFORNIA"
in color [1:169,000]

LEGEND

1. [Big tree groves]

UNITED STATES. *Department of Agriculture. Division of Forestry*

1900 *A short account of the big trees of California.* U. S. Dept. Agr., Div. of Forestry, Bull. no. 28, inserted between pp. 22 and 23.

[1911] "CHAPARRAL REGION OF SOUTHERN CALIFORNIA"
in color [1:2,700,000]

LEGEND

1. Chaparral

2. Timberland and woodland

PLUMMER, FRED G.

1911 *Chaparral, studies in the dwarf forests, or elfinwood, of southern California.* U. S. Dept. Agr., Forest Serv., Bull. no. 85, facing p. 48.

1913 "SKETCH MAP SHOWING TOPOGRAPHIC FEATURES OF THE SODA SPRINGS PROPERTY"
black and white [1:10,700]

LEGEND

1. Tule swamp

4. Swamp

2. Rocks and thin timber

5. Meadow land

3. Willow swamp

LE CONTE, J. N.

1913 "The Soda Springs property in the Tuolumne Meadows." *Sierra Club Bulletin*, vol. 9, facing p. 37.

1915 "MAP SHOWING THE PLANT COMMUNITIES IN COACHELLA VALLEY [RIVERSIDE COUNTY]"
black and white [1:316,800]

LEGEND

1. Creosote bush

5. Pickleweed

2. Desert-sage

6. Chamiso ("sandhills")

3. Seepweed

7. Original vegetation destroyed

SHANTZ, H. L. and R. L. PIEMEISEL

1924 "Indicator significance of the natural vegetation of the southwestern desert region." *Journal of Agricultural Research*, vol. 28, p. 728.

[1915] "DISTRIBUTION OF THE TWO OAKS, VALLEY OAK (QUERCUS LOBATA) AND COAST LIVE OAK (*quercus agrifolia*)"
black and white [1:200,000]

LEGEND

- 1. Forest areas *Quercus lobata*
 - 2. Forest areas *Quercus agrifolia*
- Includes symbols showing small groups or single individuals of each species

COOPER, WILLIAM SKINNER

1926 "Vegetational development upon alluvial fans in the vicinity of Palo Alto, California." *Ecology*, vol. 7, p. 7.

[1915] "GENERALIZED MAP OF ORIGINAL VEGETATION"

black and white

[1:200,000]

LEGEND

- 1. Salt marsh
- 2. Willow-composite community
- 3. Oak forest
- 4. Chaparral

COOPER, WILLIAM SKINNER

1926 "Vegetational development upon alluvial fans in the vicinity of Palo Alto, California." *Ecology*, vol. 7, p. 14. (Map repeated in outline on p. 16 to show correlation of vegetation with surface contours and on p. 21 to show correlation with water table contours.)

[1927] "MAP SHOWING DISTRIBUTION OF TYPES OF VEGETATION IN A REPRESENTATIVE AREA OF THE SANTA LUCIA MOUNTAINS, 12 MILES SOUTH OF CARMEL"

black and white

[1:32,500]

LEGEND

- 1. Hygrophytic forest
- 2. Mixed coastal chaparral
- 3. *Arctostaphylos* chaparral
- 4. *Adenostoma* chaparral
- 5. Grassland
- 6. Xerophytic scrub
- 7. Cultivated areas and beach

SHREVE, FORREST

1927 "The vegetation of a coastal mountain range." *Ecology*, vol. 8, p. 42.

1927-1936 "VEGETATION TYPES OF CALIFORNIA (EXCLUSIVE OF DESERTS AND CULTIVATED LANDS)"

in color

1:62,500 or 1:125,000

LEGEND

- A. Miscellaneous types
 - 1. Barren
 - 2. Grassland-meadow
 - 3. Cultivated-urban area
- B. Herbaceous types
 - 4. Grassland
 - 5. Bushy herbs
- C. Shrub types
 - 6. Sagebrush
 - 7. Chamise chaparral
 - 8. Chaparral
 - 9. Timberland chaparral
 - 10. Semi-desert chaparral
- 13. Woodland-sagebrush
- 14. Woodland-grass
- 15. Woodland
- 16. Piñon-juniper
- 17. Big cone spruce
- 18. Miscellaneous conifer types
- E. Commercial tree types
 - 19. Douglas fir belt
 - 20. Pine belt
 - 21. Pine-fir belt
 - 22. Fir belt
- F. Sub-alpine tree types
 - 23. Sub-alpine

- | | |
|------------------------|--------------------------|
| D. Woodland tree types | 24. Lodgepole pine |
| 11. Semi-desert | G. Plantation tree types |
| 12. Woodland chaparral | 25. Plantations |

Overprint of numerous letter symbols indicate floristic composition. Legend items vary slightly on different sheets.

Sheets in series:

23	Redding	1:125,000	163A	San Antonio	1:62,500
82C	San Mateo	1:62,500	163B	Rock Creek	1:62,500
85C	New Almaden	1:62,500	163C	Pomona	1:62,500
	(now Los Gatos)		163D	Cucamonga	1:62,500
153	Elizabeth Lake	1:125,000	164C	San Bernardino	1:62,500
161A	Santa Susana	1:62,500	164D	Redlands	1:62,500
161B	Piru	1:62,500	165	San Geronio	1:125,000
161C	Triunfo Pass	1:62,500	175	San Jacinto	1:125,000
161D	Calabasas	1:62,500	176	Elsinone	1:125,000
162A	Tujunga	1:62,500	177	Corona	1:62,500
162B	San Fernando	1:62,500	180	San Luis Rey	1:125,000
162D	Pasadena	1:62,500	181	Ramona	1:125,000

WIESLANDER, A. E.

1932-1942 *Vegetation types of California*. Berkeley, Calif., California Forest and Range Experiment Station.

- 1930 "MAP OF THE MAJOR PLANT COMMUNITIES IN A TRANSECT OF THE SIERRA NEVADA"
black and white [1:90,000]

LEGEND

- | | |
|-------------------------------|------------------------------|
| 1. Cultivated | 8. Fir-lodgepole pine forest |
| 2. Hog-wallow association | 9. Talus chaparral |
| 3. Great Valley grassland | 10. Lodgepole pine forest |
| 4. Willow-poplar association | 11. Sagebrush |
| 5. Foothill woodland | 12. Alpine-subalpine forest |
| 6. Chaparral | 13. Bobby meadow |
| 7. Western yellow pine forest | |

Additional floristic information is given by over-printed symbols

KLYVER, F. D.

1931 "Major plant communities in a transect of the Sierra Nevada Mountains of California." *Ecology*, vol. 12, facing p. 1.

- 1936 "VEGETATION TYPE MAP, SANTA CRUZ MOUNTAIN UNIT"
in color [1:507,000]

LEGEND

- | | |
|---------------|------------------------|
| 1. Barren | 6. Woodland |
| 2. Cultivated | 7. Woodland-grass |
| 3. Grassland | 8. Redwood |
| 4. Sagebrush | 9. Redwood-Douglas fir |
| 5. Chaparral | 10. Douglas fir |

Also indicates the occurrences of Monterey pine and ponderosa pine by over-printed symbols

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*

1939 In Jensen, Herbert A., *Vegetation types and forest conditions of the Santa Cruz Mountains unit, of California*. California Forest and Range Exp. Sta., Forest Surv. Release no. 1, p. 8.

1937 "SAN JOAQUIN VALLEY, CALIFORNIA" (2 MAPS)

black and white

1:1,700,000

LEGEND

Map I: Principal original types of vegetation

1. Tree savanna
2. Pacific grassland
3. Desert saltbush
4. Spiny saltbush
5. Lowland types

Map II

1. Winter annuals
2. Farm land
3. Desert saltbush
4. Spiny saltbush
5. Lowland types

PIEMEISEL, R. L. and F. R. LAWSON

1937 *Types of vegetation in the San Joaquin Valley of California and their relation to the beet leafhopper*. United States Department of Agriculture, Washington, Technical Bull. 557.

[1937] "MAP OF A PORTION OF NORTHWESTERN CALIFORNIA, SHOWING AREA COVERED BY THIS PAPER"

black and white

[1:1,700,000]

LEGEND

1. Prairie
2. Woodland
3. Chaparral

4. Bald hills region, with woodland and prairie
5. Sierran montane forest
6. Humid coast region

CLARK, HAROLD W.

1937 "Association types in the north coast ranges of California." *Ecology*, vol. 18, p. 215.

[1938] "SAN JOAQUIN BASIN"

black and blue

[1:1,600,000]

LEGEND

1. Coniferous forests
2. Foothill woodland-chaparral-grass type

3. Grass and brush lands
4. Agricultural lands

ROWE, P. B.

[1948] *Influence of woodland chaparral on water and soil in central California*. [Sacramento], State of California, Department of Natural Resources, Division of Forestry, on first cover.

1939 "NORTHERN SIERRA NEVADA LAND UTILIZATION INVESTIGATIONS, LAND-CHARACTER TYPES"

black and white

1:1,000,000

LEGEND

- A. Nontimber types (unsuitable for timber cropland)
 - 1. Grassland areas, mostly without brush
 - 2. Grassland areas, a considerable part with brush
 - 3. Cultivated and grassland areas, a significant part of latter with brush
 - 4. Chaparral and grassland areas, a part of latter with brush
 - 5. Chaparral areas
 - 6. Canyon areas
- B. Nontimber and timber sites intermingled
 - 7. Grassland areas, mostly with brush; woodland and chaparral areas primarily on deforested sites
 - 8. Grassland areas, mostly with brush; woodland and chaparral areas primarily on deforested sites. Cultivated areas on both timber and nontimber sites.
- C. Timber sites (timber cropland)
 - 9. Grassland, cultivated, and woodland and chaparral areas
 - 10. Woodland and chaparral, grassland, and forest areas
 - 11. Grassland and forested areas
 - 12. Forest, cultivated, and woodland and chaparral areas
 - 13. Forest and grassland areas, the latter with brush
 - 14. Forest areas, sparsely settled
 - 15. Mountainous forest areas

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*
 1942 In Weeks, David et al., *Land utilization statistics for the northern Sierra Nevada*. California Forest and Range Exp. Sta., Forest. Surv. Release no. 3, p. 10a.

[1942] "DISTRIBUTION OF TIMBER REGIONS IN THE FOOTHILL AREAS"
 black and white [1:12,000,000]

LEGEND

- 1. Second growth ponderosa pine
- 2. Redwood (virgin)
- 3. Douglas-fir

SAMPSON, ARTHUR W.
 1944 *Plant succession on burned chaparral lands in northern California*. Univ. California, Agr. Exp. Sta., Bull. no. 685, p. 6.

[1942] "DISTRIBUTION OF THE CHAPARRAL ASSOCIATION BY ECOLOGICAL REGIONS"
 black and white [1:8,600,000]

LEGEND

- 1. Chamise predominant
- 2. Broadleaf chaparral predominant
- 3. Mixed chamise and broadleaf chaparral

SAMPSON, ARTHUR W.
 1944 "Plant succession on burned chaparral lands in northern California." Univ. California, Agr. Exp. Sta., Bull. no. 685, p. 12.

1942 "SANTA BARBARA ISLAND (SHOWING DISTRIBUTION OF VEGETATION COMMUNITIES)"
 black and white 1:24,000

LEGEND

- | | |
|---|---|
| 1. <i>Coreopsis</i> association | 5. Sea bluff break community |
| 2. <i>Mesembryanthemum crystallinum</i> colonies | 6. <i>Suaeda-Larus</i> Biome |
| 3. <i>Lycium californicum</i> societies | 7. <i>Opuntia littoralis</i> |
| 4. <i>Astragalus-Baeria-Malacothrix</i> community | 8. <i>Echeveria-Eriogonum-Eriophyllum</i> community |
| | 9. Grassland |

DUNKLE, M. B.

1950 "Plant Ecology of the Channel Islands of California." *Allan Hancock Pacific Expeditions*. vol. 13, no. 3. pp. 358-359.

[1944] "THE CHAPARRAL AREAS OF MOUNT DIABLO"

black and white

[1:120,700]

LEGEND

1. [Chaparral]

BOWERMAN, MARY L.

1944 *The flowering plants and ferns of Mount Diablo, California*. Berkeley, California, The Gillick Press, p. 36.

[1945] "MAP OF NORTHWESTERN CALIFORNIA SHOWING . . . DISTRIBUTION OF VEGETATION TYPES"

black and white

[1:2,400,000]

LEGEND

- | | |
|----------------------|-------------------------|
| 1. Redwood | 4. Grass and oak-grass |
| 2. Douglas fir | 5. Chaparral |
| 3. Pine and pine fir | 6. Cultivated and urban |

STORIE, R. EARL and A. E. WIESLANDER

1952 "Dominant soils of the redwood-Douglas fir region of California." *Soil Science Proceedings*, vol. 16, p. 164.

1945 "VEGETATION TYPES OF CALIFORNIA"

in color

[1:2,400,000]

LEGEND

- | | |
|--|---------------------------------------|
| 1. Ponderosa pine (ponderosa, Jeffrey, and sugar pines alone or mixed with Douglas fir or the true firs) | 6. Woodland-grass |
| 2. Redwood | 7. Grass |
| 3. Douglas fir and fir | 8. Chaparral |
| 4. Lodgepole pine-whitebark pine | 9. Sagebrush |
| 5. Piñon pine and juniper | 10. Desert |
| | 11. Cultivated, urban, and industrial |
| | 12. Barren |

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*

1947 In Jensen, Herbert A., "A system for classifying vegetation in California." *California Fish and Game*, vol. 33, facing p. 200. (Reprinted, 1946 1:5,700,000, with types 1-3 combined as "Timber conifers," in Wieslander, A. E., and Herbert A. Jensen, *Forest areas*,

timber volumes and vegetation types in California. California Forest and Range Exp. Sta., Forest Surv. Release no. 4, p. 6.)

1945 "VEGETATION TYPES OF CALIFORNIA"
blueprint [1:1,000,000]

LEGEND

- | | |
|----------------------------------|----------------------------------|
| 1. Pine | d. Coulter pine |
| 2. Redwood | e. Bigcone-spruce |
| 3. Douglas fir | f. Cypress |
| 4. Fir | 10. Woodland (hardwoods) |
| 5. Pine-Douglas fir-fir | 11. Woodland-grass |
| 6. Lodgepole pine-whitebark pine | 12. Grass |
| 7. Piñon pine | 13. Chaparral |
| 8. Juniper | 14. Great Basin sagebrush |
| 9. Minor conifers | 15. Coastal sagebrush |
| a. Knobcone pine | 16. Desert |
| b. Monterey pine | 17. Barren |
| c. Bishop pine | 18. Cultivated, urban industrial |

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*
1945 Berkeley, California Forest and Range Experiment Station.

1945 "TIMBER AND VEGETATION CLASSES, NORTHERN MENDOCINO COUNTY,
CALIFORNIA"
in color [1:560,000]

LEGEND

- | | |
|---|---|
| 1. Old growth redwood | 9. Young growth pine, Douglas fir, fir |
| 2. Young growth-old growth redwood | 10. Poorly stocked timber land |
| 3. Young growth redwood | 11. Unstocked timber land |
| 4. Old growth Douglas fir | 12. Noncommercial timber |
| 5. Young growth-old growth Douglas fir | 13. Woodland |
| 6. Young growth Douglas fir | 14. Chaparral |
| 7. Old growth pine, Douglas fir, fir | 15. Woodland-grass |
| 8. Young growth-old growth pine, Douglas fir, fir | 16. Grass |
| | 17. Cultivated, urban, and industrial nonforest areas |

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*
1948 In Poli, Adon, and Donald T. Griffith, *Forest land ownership in northern Mendocino County, California.* California Forest and Range Exp. Sta., Forest Surv. Release no. 5, p. 5.

[1947] "[DISTRIBUTION OF CERTAIN VEGETATION TYPES IN CALIFORNIA]"
black and red [1:7,800,000]

LEGEND

- | | |
|-------------------------|-----------------------|
| 1. Woodland-grass areas | 2. Brush associations |
|-------------------------|-----------------------|

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*
1947 In Shantz, H. L., *The use of fire as a tool in the management*

of the brush ranges of California. [Sacramento], Division of Forestry, California Department of Natural Resources, on cover (legend on p. [2]).

- [1948] "THE FOUR GRASSLAND AREAS OF THE PACIFIC SLOPE OF CALIFORNIA"
black and white [1:9,800,000]

LEGEND

- | | |
|-------------------|-------------------------------------|
| 1. Open grassland | 4. Timber-grass-brush |
| 2. Grass-woodland | 5. Cultivated, urban and industrial |
| 3. Chaparral | |

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*
1948 In Talbot, M. W., and A. W. Sampson, "The range in California," U.S. Dept. Agr., *Grass, The Yearbook of Agr. for 1948*, p. 578.

- [1948] "GENERALIZED TYPES AND AGE CLASSES OF TIMBER STANDS, HUMBOLDT COUNTY, CALIFORNIA"
in color [1:1,300,000]

LEGEND

- | | |
|-------------------------|--------------------------|
| 1. Redwood | 4. Fir |
| 2. Douglas fir | 5. Noncommercial forests |
| 3. Pine-Douglas fir-fir | 6. Nonforest |
- Commercial forest types are subdivided into four classes on basis of age

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*
1952 In Baker, Harold L. and Adon Poli, *Area and ownership of forest land in Humboldt County, California.* California Forest and Range Exp. Sta., Forest Surv. Release no. 16, preceding p. 1.

- [1948] "GENERALIZED TYPES AND AGE CLASSES OF TIMBER STANDS, COAST RANGE PINE SUBREGION, CALIFORNIA [SOLANO COUNTY TO SISKIYOU COUNTY]"
in color [1:1,300,000]

LEGEND

- | | |
|----------------|-------------------------|
| 1. Pine | 4. Pine—Douglas fir—fir |
| 2. Douglas fir | 5. Noncommercial forest |
| 3. Fir | 6. Nonforest |
- Commercial forest types are subdivided into four classes on basis of age

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*
1952 *Forest statistics for the Coast Range pine subregion in California.* California Forest and Range Exp. Sta., Forest Surv. Release no. 12, preceding p. 1.

- [1948] "TIMBER AND OTHER VEGETATION TYPES, SISKIYOU COUNTY, CALIFORNIA"
in color [1:850,000]

LEGEND

- | | |
|---------------------------|---------------------------|
| A. Commercial forest land | 6. Chaparral |
| 1. Pine | 7. Conifers and hardwoods |

- | | |
|------------------------------|-------------------------------------|
| 2. Douglas fir | C. Nonforest land |
| 3. Fir | 8. Grassland |
| 4. Pine-Douglas fir-fir | 9. Cultivated, urban and industrial |
| 5. Lodgepole pine | 10. Sagebrush, barren, marsh |
| B. Noncommercial forest land | |

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*
 1950 *In* Burks, George F., and Adon Poli, *Area and ownership of forest land in Siskiyou County, California*. California Forest and Range Exp. Sta., Forest Surv. Release no. 8, preceding p. 1.

[1948] "GENERALIZED TYPES AND AGE CLASSES OF TIMBER STANDS, TRINITY COUNTY, CALIFORNIA"
 in color [1:840,000]

LEGEND

- | | |
|----------------|--------------------------|
| 1. Pine | 4. Pine—Douglas fir—fir |
| 2. Douglas fir | 5. Noncommercial forests |
| 3. Fir | 6. Nonforest |
- Commercial forest types are subdivided into four classes on basis of age

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*
 1951 *In* Baker, Harold L., and Adon Poli, *Area and ownership of forest land in Trinity County, California*. California Forest and Range Exp. Sta., Forest Surv. Release no. 9, preceding p. 1.

[1948] "GENERALIZED TYPES AND AGE CLASSES OF TIMBER STANDS, MENDOCINO COUNTY, CALIFORNIA"
 in color [1:830,000]

LEGEND

- | | |
|-------------------------|-------------------------|
| 1. Redwood | 5. Pine |
| 2. Douglas fir | 6. Noncommercial forest |
| 3. Pine—Douglas fir—fir | 7. Nonforest |
| 4. Fir | |
- Commercial forest types are subdivided into four classes on basis of age

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*
 1951 *In* Baker, Harold L., and Adon Poli, *Area and ownership of forest land in Mendocino County, California*. California Forest and Range Exp. Sta., Forest Surv. Rel. no. 10, preceding p. 1.

[1948] "GENERALIZED TYPES AND AGE CLASSES OF TIMBER STANDS, SAN MATEO COUNTY, CALIFORNIA"
 in color [1:620,000]

LEGEND

- | | |
|----------------|-------------------------|
| 1. Redwood | 3. Noncommercial forest |
| 2. Douglas fir | 4. Nonforest |
- Forest areas are subdivided into four classes on basis of age

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*
 1954 *In* Baker, Harold L., and Adon Poli, *Area and ownership of forest land in San Mateo County, California*. California Forest and Range Exp. Sta., Forest Surv. Release no. 22, preceding p. 1.

[1948] "GENERALIZED TYPES AND AGE CLASSES OF TIMBER STANDS, LAKE COUNTY, CALIFORNIA"
in color [1:500,000]

LEGEND

- | | |
|-------------------------|-------------------------|
| 1. Pine—Douglas fir—fir | 4. Noncommercial forest |
| 2. Pine | 5. Nonforest |
| 3. Douglas fir | |

Commercial forest types are subdivided into four classes on basis of age

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*
1952 In Baker, Harold L., and Adon Poli, *Area and ownership of forest land in Lake County, California*. California Forest and Range Exp. Sta., Forest Surv. Release no. 11, preceding p. 1.

[1948] "GENERALIZED TYPES AND AGE CLASSES OF TIMBER STANDS, SONOMA COUNTY, CALIFORNIA"
in color [1:500,000]

LEGEND

- | | |
|----------------|-------------------------|
| 1. Redwood | 3. Noncommercial forest |
| 2. Douglas fir | 4. Nonforest |

Commercial forest types are subdivided into four classes on basis of age

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*
1952 In Baker, Harold L., and Adon Poli, *Area and ownership of forest land in Sonoma County, California*. California Forest and Range Exp. Sta., Forest Surv. Release no. 14, preceding p. 1.

[1948] "GENERALIZED TYPES AND AGE CLASSES OF TIMBER STANDS, DEL NORTE COUNTY, CALIFORNIA"
in color [1:500,000]

LEGEND

- | | |
|-------------------------|-------------------------|
| 1. Redwood | 4. Fir |
| 2. Douglas fir | 5. Noncommercial forest |
| 3. Pine—Douglas fir—fir | 6. Nonforest |

Forest areas are subdivided into four classes on basis of age

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*
1953 In Baker, Harold L., and Adon Poli, *Area and ownership of forest land in Del Norte County, California*. California Forest and Range Exp. Sta., Forest Surv. Rel. no. 18, preceding p. 1.

[1948] "GENERALIZED TYPES AND AGE CLASSES OF TIMBER STANDS, SANTA CRUZ COUNTY, CALIFORNIA"
in color [1:280,000]

LEGEND

- | | |
|----------------|-------------------------|
| 1. Redwood | 3. Noncommercial forest |
| 2. Douglas fir | 4. Nonforest |

Forest areas are subdivided into four classes on basis of age

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*

1953 In Baker, Harold L., and Adon Poli, *Area and ownership of forest land in Santa Cruz County, California*. California Forest and Range Exp. Sta., Forest Surv. Release no. 21, preceding p. 1.

[1949] "CALIFORNIA GRASSLANDS AND ASSOCIATED VEGETATION"

black and white

[1:7,000,000]

LEGEND

1. Coastal grassland and chaparral
2. Valley and foothill grasslands, and chaparral
3. Timbered and grassland ranges
4. Great Basin grasslands and sagebrush
5. Desert

Adapted from Forest Survey, California Forest and Range Experiment Station (1947)

SAMPSON, ARTHUR W., AGNES CHASE and DONALD W. HEDRICK

1951 *California grasslands and range forage grasses*. Univ. California, California Agr. Exp. Sta., Bull. no. 724, p. 14.

1949-1964, continuing "TIMBER STANDS AND VEGETATION ELEMENTS MAP SERIES AND VEGETATION-SOIL MAP SERIES"

blue and white

1:31,680

LEGEND

1. Commercial conifers: coniferous trees of value for lumber and pulpwood, such as ponderosa pine, redwood, Douglas fir, and white fir.
2. Minor conifers: coniferous trees of little or no value for lumber or pulpwood, such as whitebark pine, digger pine, cypresses, and knobcone pine.
3. Hardwoods: broadleaved trees such as the oaks, madrone, and alders
4. Shrubs: tall and heavily branched shrubs, such as the manzanitas, scrub oaks, and chamise, and low slenderly branched shrubs, such as the sagebrush, wild buckwheat, California yerba santa, and bitterbrush
5. Bushy herbs: bushy herbaceous plants, such as ferns, Klamath weed, and woolly mules-ears
6. Grass: grasses and other associated herbaceous plants not under cultivation
7. Marsh: very poorly drained areas supporting an herbaceous cover, such as pickleweed and cattails
8. Bare ground: bare or litter-covered soil devoid of vegetation
9. Rock: rugged areas devoid of soil, such as lava flows, talus slopes, and cliffs
10. Cultivated: land under cultivation, irrigated pastures, and fallow land
11. Urban-industrial: residential, urban and industrial areas

PACIFIC SOUTHWEST FOREST & RANGE EXPERIMENT STATION, in cooperation with THE CALIFORNIA DIVISION OF FORESTRY, THE UNIVERSITY OF CALIFORNIA, and THE CALIFORNIA REGION OF THE UNITED STATES FOREST SERVICE

1949-1964 "Timber stand and vegetation elements, and vegetation-soil map series." San Francisco, California, U.S. Forest Service.

Note: the sheets of the two series are identical for a given 7½ minute planimetric quadrangle except for the symbols used to describe the units delineated on the maps. All quadrangles mapped to date are available as timber stands and vegetation elements maps. Approx-

mately 50% of the quadrangles are also available as vegetation-soil maps. In addition to vegetation, soil data are given in the vegetation-soil series, and silvicultural information is shown in the timber stands and vegetation elements series.

- [1951] "GENERALIZED TYPES OF TIMBER STANDS, SHASTA COUNTY, CALIFORNIA"
in color [1:760,000]

LEGEND

- | | |
|-------------------------|-------------------------|
| 1. Pine | 4. Lodgepole pine |
| 2. Pine—Douglas fir—fir | 5. Noncommercial forest |
| 3. Fir | 6. Nonforest |

UNITED STATES. *Forest Survey. California Forest and Range Experiment Station*
1954 In Baker, Harold L., and Adon Poli, *Area and ownership of forest land in Shasta County, California*. California Forest and Range Exp. Sta., Forest Surv. Release no. 24, preceding p. 1.

- [1951] "MAP OF WOOLSEY CANYON, WEST SIDE OF BERKELEY HILLS, ALAMEDA COUNTY, CALIFORNIA"
black and white [1:10,000]

LEGEND

- | | |
|------------------------------|-----------------------|
| 1. Dense shrubs | 4. Oak-laurel woods |
| 2. Eucalyptus tree plantings | 5. Willows |
| 3. Gardens with trees | 6. Open grassy slopes |

PITELKA, FRANK A.
1951 "Ecologic overlap and interspecific strife in breeding populations of Anna and Allen hummingbirds." *Ecology*, vol. 32, p. 642.

- 1953 "FOREST TYPES OF CALIFORNIA"
in color [1:5,600,000]

LEGEND

- | | |
|----------------|-------------------------|
| 1. Pine | 5. Pine-Douglas fir-fir |
| 2. Redwood | 6. Noncommercial |
| 3. Douglas fir | 7. Nonforest |
| 4. Fir | |

UNITED STATES. *Forest Service*
1954 *Forest statistics for California*. California Forest and Range Exp. Sta., Forest Survey Release no. 25, preceding p. 1.

- 1953 "MAJOR BRUSHLAND AREAS OF THE COAST RANGES AND SIERRA-CASCADE FOOTHILLS IN CALIFORNIA"
black and white [1:5,600,000]

LEGEND

1. Boundary of zone in which brush problems center, outside of commercial timber areas

CALIFORNIA

- 2. Woodland types containing mixtures of hardwood trees, shrubs, and grass (woodland, woodland-chaparral, woodland-grass)
- 3. Chaparral and associated types made up predominantly of shrub species (chaparral, coastal sagebrush, and minor conifers)

WIESLANDER, A. E. and CLARK H. GLEASON

1954 *Major brush areas of the Coast Ranges and Sierra-Cascade foothills in California*. California Forest and Range Exp. Sta., Misc. Paper no. 15, p. 5.

- [1953] "GENERALIZED TYPES AND AGE CLASSES OF TIMBER STANDS, REDWOOD-DOUGLAS FIR SUBREGION, CALIFORNIA"

black and white [1:1,400,000]

LEGEND

- | | |
|-------------------------|--------------------------|
| 1. Redwood | 5. Fir |
| 2. Douglas fir | 6. Pine |
| 3. Pine-Douglas fir | 7. Noncommercial forests |
| 4. Pine-Douglas fir-fir | 8. Nonforest |

Four age classes are shown by overprinted colors

UNITED STATES. *Forest Service*

1953 *Forest statistics for the Redwood-Douglas fir subregion in California*. California Forest and Range Exp. Sta., Forest Survey Release no. 19, preceding p. 1.

- [1954] "MAP OF THE SALT MARSH NEAR THE PALO ALTO YACHT HARBOR, PALO ALTO, CALIFORNIA"

black and white [1:5,700]

LEGEND

- | | |
|---------------------------------|------------------|
| 1. <i>Jaumea carnosa</i> | 4. Spartinetum |
| 2. <i>Distichlis spicata</i> | 5. Salicornietum |
| 3. <i>Frankenia grandifolia</i> | |

HINDE, HOWARD P.

1954 "The vertical distribution of salt marsh phanerogams in relation to tide levels." *Ecological Monographs*, vol. 24, p. 214.

- [1955] "THE TWO FOREST REGIONS OF CALIFORNIA"

black and white [1:2,300,000]

LEGEND

- | | |
|-------------------|----------------|
| 1. Redwood region | 2. Pine region |
|-------------------|----------------|

ANON.

1955 *In* Dolder, Edward F. (ed.), *Forests of California, treasure chest for the needs of man*. Sacramento, State of California, Dept. Nat. Resources, unnumbered publication, p. 16.

- [1955] "BROAD VEGETATION TYPES OF CALIFORNIA"

black and white [1:2,300,000]

LEGEND

- | | |
|-------------------|------------------------|
| 1. Timber | 4. Sagebrush-chaparral |
| 2. Grass-woodland | 5. Desert |
| 3. Cultivated | |

ANON.

1955 *In Dolder, Edward F. (ed.), Forests of California, treasure chest for the needs of man.* Sacramento, State of California, Dept. Nat. Resources, unnumbered publication, p. 20.

- [1955] "TIMBER-FOREST TYPES"
black and white [1:2,300,000]

LEGEND

- | | |
|----------------|-------------------------|
| 1. Pine | 4. Fir |
| 2. Redwood | 5. Pine-Douglas fir-fir |
| 3. Douglas fir | |

ANON.

1955 *In Dolder, Edward F. (ed.), Forests of California, treasure chest for the needs of man.* Sacramento, State of California, Dept. Nat. Resources, unnumbered publication, p. 21.

- [1955] "GENERALIZED TYPES OF TIMBER STANDS, TEHAMA COUNTY, CALIFORNIA"
green, black and white [1:716,000]

LEGEND

- | | |
|-------------------------|-------------------------|
| 1. Pine | 4. Lodgepole pine |
| 2. Pine-Douglas fir-fir | 5. Noncommercial forest |
| 3. Fir | 6. Nonforest |

BAKER, HAROLD L. and ADON POLI

1955 *Area and ownership of forest land in Tehama County, California.* California Forest and Range Exp. Sta., Forest Surv. Release no. 26, preceding p. 1.

- [1955] "[VEGETATIVE COVER OF AREA WEST OF CLEAR LAKE IN LAKE COUNTY, CALIFORNIA]"
black and white [1:127,000]

LEGEND

- | | |
|-------------------------------|-----------------|
| 1. Chaparral | 2. Oak-woodland |
| a. North slope [heavy growth] | 3. Orchards |
| b. South slope | |

TABER, RICHARD D. and RAYMOND F. DASMANN

1958 *The black-tailed deer of the chaparral.* California Dept. Fish and Game, Game Management Branch, Game Bull. no. 8, p. 41.

- 1956 "TIMBER STAND-VEGETATION COVER, CENTRAL SIERRA SNOW LABORATORY BASIN"
black and white [1:28,000]

LEGEND

1. Conifer trees—crowns of conifer trees occupy 5 percent or more of the ground space
2. Shrubs—shrubs, such as manzanitas, scrub oaks, and willows occupy 20 percent or more of the ground space between trees or in the absence of trees occupy 5 percent or more of the ground space
3. Bushy herbs—bushy herbaceous plants, such as ferns, woolly mules ears, and sagebrush occupy 20 percent or more of the ground space
4. Grass—grasses and other associated herbaceous plants are the dominant cover over 20 percent or more of the ground space
5. Bare ground—bare or litter-covered soil devoid of vegetation occupies 20 percent or more of the ground space
6. Rock—rugged areas devoid of soil, such as rock outcrops, lave flows, talus slopes, and cliffs occupy 20 percent or more of the ground space
Also indicates age structure in four classes and density of sawlog stand, total stand, and of total woody vegetation cover in five classes each.

NELSON, ROBERT E.

1957 *Soil-vegetation survey of a central Sierra Snow Zone watershed*. California Forest and Range Exp. Sta., Misc. Paper no. 21, p. 11 (legend on pp. 9, 12-15).

1956 "SOIL—VEGETATION, CENTRAL SIERRA SNOW LABORATORY BASIN"
black and white [1:28,000]

LEGEND

- | | |
|-----------------------------------|--|
| 1. Western service berry | 17. California red fir |
| 2. Dwarf maple | 18. Mountain snowberry |
| 3. Pinemat manzanita | 19. Mountain spirea |
| 4. Mountain alder | 20. Willows |
| 5. Big sagebrush | 21. Dwarf bilberry |
| 6. Mountain whitehorn | 22. California false hellebore |
| 7. California <i>Helianthella</i> | 23. White fir |
| 8. Mountain hemlock | 24. Western white pine |
| 9. Jeffrey pine | 25. Woolly mules ears |
| 10. Western juniper | 26. Grasses and other associated herbaceous plants—includes meadows |
| 11. Lodgepole pine | 27. Herbaceous plants that are bushy in size and character of growth |
| 12. Pacific <i>Monardella</i> | 28. Wet meadow |
| 13. Bitter cherry | |
| 14. Bracken | |
| 15. Quaking aspen | |
| 16. Huckleberry oak | |
- Species composition of the vegetation and relative abundance of the dominant species are shown by symbols

NELSON, ROBERT E.

1957 *Soil-vegetation survey of a central Sierra snow zone watershed*. California Forest and Range Exp. Sta., Misc. Paper no. 21, p. 17.

[1959] "[VEGETATION AND LAND USE, AREA APPROXIMATELY 35°-40° N. LATITUDE, 118° W. LONGITUDE TO PACIFIC COAST]"
in color [1:5,100,000]

LEGEND

- | | |
|---------------------------------|-----------------------|
| 1. Tundra and permanent snow | 5. Steppe |
| 2. Evergreen needleleaf forest | 6. Desert |
| 3. Mid-latitude mixed forest | 7. Irrigated dry land |
| 4. Mediterranean scrub woodland | 8. Cultivation |

McFALL, CHRISTIE and VINCENT KOTSCHAR

1959 In James, Preston E, and Nelda Davis, *The wide world, a geography*. New York, The Macmillan Co., p. [137].

[1960] "VEGETATION ZONES OF THE SAN BERNARDINO MOUNTAINS"

black and white

[1:457,000]

LEGEND

- | | |
|----------------------------|-------------------------|
| 1. Chamise chaparral | 5. Timberland chaparral |
| 2. Woodland chaparral | 6. Coniferous forest |
| 3. Desert chaparral | 7. Cultivated land |
| 4. Pinyon-juniper woodland | |

HORTON, JEROME S.

1960 *Vegetation types of the San Bernardino Mountains, California*. Pacific Southwest Forest and Range Exp. Sta., Tech. Paper no. 44, p. 2.

[1961] "HABITATS & LIFE ZONES [IN SOUTHWESTERN CALIFORNIA]"

black and white

[1:2,400,000]

LEGEND

- | | |
|---|---|
| 1. Cult. & urban | 5. Chaparral or brushlands (mainly
Up. Sonoran, some Trans.) |
| 2. Low desert (L. S.) | 6. Main mt. forest (Trans. & Can.) |
| 3. High desert (Up. Sonoran) | 7. Sub-alpine forest & alpine fell
fields (Hudsonian & Arctic-alpine
zones) |
| 4. Oak woodlands (Up. Son. &
Trans.) | |

DE LISLE, HAROLD F.

1961 *Common plants of the Southern California mountains*. Section 1 of the Natural History of the Southern California Mountains. Healdsburg, California, Natuegraph Co., American Wildlife Region Series, vol. 5, p. 3.

COLORADO

- 1898 "BATTLEMENT MESA FOREST RESERVE SHOWING DISTRIBUTION OF COMMERCIAL TIMBER, BURNED AREAS, ETC."
in color [1:255,000]

LEGEND

- A. Wooded area
 - 1. Scattered mixed growth of Engelmann spruce and alpine fir
 - 2. Much scattered mixed growth of Engelmann spruce and alpine fir
 - 3. Mixed growth of Engelmann spruce, alpine fir, and aspen
 - 4. Red fir
 - 5. Yellow pine
 - 6. One-seed juniper
- B. Burned area
 - 7. Scattered mixed growth of Engelmann spruce and alpine fir
 - 8. Red fir
 - 9. Mixed growth of Engelmann spruce, alpine fir, and aspen
 - 10. Yellow pine
 - 11. Small aspen (burned over in 1898)
 - 12. Brush and grass land (burned over in 1898)
- C. Brush land
 - 13. Aspen, with small percentage of Engelmann spruce, and alpine fir
 - 14. Small aspen, oak, and western service brush
 - 15. Arborescent rocky mountain oak
 - 16. Sagebrush
 - 17. Grass land
- D. Agricultural land
 - 18. Ranchland occupied
 - 19. Ranchland abandoned
- E. [Other]
 - 20. Lava rock, with stunted Engelmann spruce, and alpine fir

SUDWORTH, GEORGE B.

1900 "Battlement Mesa Forest Reserve." *U. S. Geol. Surv., Ann. Rept.* no. 20 (1898-1899), pt. 5 (Forest reserves), pl. 59 in atlas.

- 1898 "WHITE RIVER PLATEAU TIMBER RESERVE SHOWING DISTRIBUTION OF COMMERCIAL TIMBER, BURNED AREAS, ETC."
in color [1:255,000]

LEGEND

- A. Wooded area
 - 1. Mixed growth of Engelmann spruce and alpine fir
 - 2. Much scattered mixed growth of Engelmann spruce and alpine fir
 - 3. Mixed growth of Engelmann spruce, alpine fir, and aspen

4. Lodgepole pine
5. Red fir
6. Yellow pine
7. One-seed juniper
- B. Burned area
 8. Lodgepole pine (burned off in about 1879, area more or less recovered with same species and scattered aspen)
 9. Mixed growth of Engelmann spruce and alpine fir (burned off in about 1879, area more or less recovered with same species and scattered aspen)
 10. Red fir (burned off in about 1879, yield under 1000 ft. B. M. per acre, area scantily recovered with same species and scattered aspen)
 11. Patches of Engelmann spruce, alpine fir, and aspen (surviving fire of 1879)
 12. Large aspen (burned off in about 1879, area recovered with aspen)
- C. Brush land
 13. Aspen with underbrush
 14. Mixed growth of alpine fir and aspen
 15. Aspen, with small percentage of alpine fir, and heavy underbrush
 16. Oak brush, western service, and choke cherry
 17. Sagebrush
 18. Grass land with scattered patches of aspen
- D. Agricultural land
 19. Ranchland occupied
 20. Ranchland abandoned
- E. [Other]
 21. Alpine meadows and bare rocks

SUDWORTH, GEORGE B.

1900 "White River Plateau Timber Land Reserve." *U. S. Geol. Surv., Ann. Rept.* no. 20 (1898-1899), pt. 5 (Forest reserves), pl. 48 in atlas.

- 1898 "PIKES PEAK, PLUM CREEK AND SOUTH PLATTE FOREST PRESERVES, SHOWING RANGE OF PRINCIPAL TIMBER TREES, IRRESPECTIVE OF BURNED AREAS" in color [1:250,000]

LEGEND

1. Lodgepole pine (*Pinus murrayana*)
2. Engelmann spruce (*Picea engelmanni*)
3. Yellow pine and Douglas spruce (*pinus ponderosa* and *Pseudotsuga taxifolia*)
4. Naturally treeless

JACK, JOHN G.

1900 "Pikes Peak, Plum Creek, and South Platte Reserves." *U. S. Geol. Surv., Ann. Rept.* no. 20 (1898-1899), pt. 5 (Forest reserves), pl. 9 in atlas.

- [1907] "VEGETATION MAP OF A SQUARE MILE IN NORTHEASTERN LARIMER COUNTY, COLORADO" black and white [1:15,500]

LEGEND

- | | |
|----------------------------|-----------------------|
| 1. <i>Cercocarpus</i> | 4. Deciduous shrubs |
| 2. <i>Pinus scopulorum</i> | 5. <i>Pseudotsuga</i> |
| 3. <i>Carex</i> | |

COLORADO

RAMALEY, FRANCIS and WILFRED W. ROBBINS

1908 *Ecological notes from north-central Colorado*. Univ. Colorado Stud., vol. 5, p. 114.

- [1908] "MAP OF REDROCK LAKE SHOWING PLANT ZONES" [1:2530]
black and white

LEGEND

- 1. Shrub
- 2. Sedge

RAMALEY, FRANCIS and WILFRED W. ROBBINS

1909 *Studies in lake and streamside vegetation*. I. Redrock Lake near Ward, Colorado. Univ. Colorado Stud., vol. 6, p. 136.

- [1909] "BOULDER PARK, TOLLAND, COLO." [1:23,000]
black and white

LEGEND

- 1. Lodgepole pine
- 2. Fir and spruce
- 3. Burned timber
- 4. Aspen
- 5. Willow and alder

BRUDERLIN, KATHARINE

1909 *In* Ramaley, Francis, "The University of Colorado Mountain Laboratory. *Univ. Colorado Studies*, vol. 7, p. 92. (Reprinted, 1911 *in his* "A study of the lodgepole-pine forests of Boulder Park" (Tolland, Colorado). *Ibid.*, vol. 8, p. 266 1911 [1:27,000], *in* Ramaley, Francis, and Louis A. Mitchell, "Ecological cross-section of Boulder Park (Tolland, Colorado)." *Ibid.*, vol. 8, p. 279 1912 [same scale], *in* Ramaley, Francis, and Mary Esther Elder, "The grass flora of Tolland, Colorado, and vicinity." *Ibid.*, vol. 9, p. 122.)

- [1910] "CARNERO LAMBING ALLOTMENT AND EXPERIMENTAL LAMBING PASTURES, COCHETOPA NATIONAL FOREST, COLORADO" [1:19,000]
black and white

LEGEND

- 1. Bunch grass range
- 2. Meadow range
- 3. Timbered range

JARDINE, JAMES T.

1911 *Coyote-proof inclosures in connection with range lambing grounds*. U. S. Forest Serv., Bull. no. 97, p. 18.

- [1916] "DISTRIBUTION OF PINYON PINE-JUNIPER IN COLORADO" [1:6,000,000]
black and white

LEGEND

- 1. Pinyon pine-juniper

ROBBINS, WILFRED W.

1917 *Native vegetation and climate of Colorado in their relation to agriculture*. Colorado Agr. College, Agr. Exp. Sta., Bull., no. 224, p. 47.

- [1916] "DISTRIBUTION OF SAGEBRUSH (*artemisia tridentata*) STEPPE IN COLORADO"
 black and white [1:6,000,000]

LEGEND

1. Sagebrush (*Artemisia tridentata*) steppe

ROBBINS, WILFRED W.

1917 *Native vegetation and climate of Colorado in their relation to agriculture.* Colorado Agr. College, Agr. Exp. Sta., Bull. no. 224, p. 38.

- [1918] "BOULDER PARK"
 black and white [1:6200]

LEGEND

1. Dry grassland
 2. Willow thicket
 3. Meadow-scrub

DODDS, G. S., W. L. BROSIUS and WILFRED W. ROBBINS

1918 *In* Robbins, Wilfred W., "Successions of vegetation in Boulder Park, Colorado." *Botanical Gazette*, vol. 65, facing p. 494.

- [1918] "MAP OF PARK AND FILLED LAKES"
 black and white [1:4,900]

LEGEND

- | | |
|---------------------------------------|---------------------------------|
| 1. <i>Artemisia tridentata</i> | 5. Willow-thicket |
| 2. Dry grassland | 6. Sedge-moor |
| 3. Herbaceous-meadow and meadow-scrub | 7. <i>Carex utriculata</i> |
| 4. Aspen | 8. <i>Eleocharis-Ranunculus</i> |

ROBBINS, WILFRED W.

1918 "Succession of vegetation in Boulder Park, Colorado." *Botanical Gazette*, vol. 65, p. 515.

- [1918] "MAP OF OXBOW NO. 20 . . ."
 black and white [1:810]

LEGEND

- | | |
|------------------------------------|----------------------|
| 1. Willow-thicket | 3. Mud and sand flat |
| 2. Willow-thicket and meadow scrub | |

ROBBINS, WILFRED W.

1918 "Successions of vegetation in Boulder Park, Colorado." *Botanical Gazette*, vol. 65, p. 508.

- [1918] "MAP OF EAST LAKE, SHOWING SURROUNDING PLANT ASSOCIATIONS"
 black and white [1:480]

LEGEND

- | | |
|--------------------------|----------------------|
| 1. Dry grassland | 3. Herbaceous meadow |
| 2. Lodgepole pine forest | 4. Meadow-scrub |

COLORADO

- | | |
|--|----------------------------|
| 5. Willow-thicket | 7. Sedge-moor |
| 6. Sedge-moor and willow-thicket mixed | 8. <i>Carex utriculata</i> |

ROBBINS, WILFRED W.

1918 "Succession of vegetation in Boulder Park, Colorado." *Botanical Gazette*, vol. 65, p 508.

- [1919] "MAP OF CLEAR CREEK VALLEY AND CANYON JUST NORTH OF GEORGETOWN, COLORADO"
black and white [1:18,000]

LEGEND

1. Standing water
2. Sand without vegetation, frequently overflowed
3. Loose sand with shrubs
4. Sand and rocks with various shrubs and herbs such as are present in inceptive mixed grassland
5. Same as preceding but with a number of trees
6. Loose sand with wheat grass
7. Early stage of *Bouteloua* association but with many shrubs of *Chrysothamnus*
8. *Bouteloua* and other short grasses
9. Inceptive mixed grassland
10. Derivative mixed grassland
11. Streambank fringe forest of alders, willows and cottonwoods

RAMALEY, FRANCIS

1920 "Some mountain plant communities of sandy soil." *Plant World*, vol. 22, p. 314.

- [1920] "MAP OF VEGETATION AT BURGRASS LAKE, ONE OF THE FOREST LAKES, A SMALL SUBALPINE POND AT AN ALTITUDE OF 10,800 FEET"
black and white [1:600]

LEGEND

- | | |
|----------------|-----------|
| 1. Moss moor | 5. Heath |
| 2. Sedge moor | 6. Meadow |
| 3. Willow moor | 7. Forest |
| 4. Meadow moor | |

RAMALEY, FRANCIS

1920 "Subalpine lake-shore vegetation in north-central Colorado." *American Journal of Botany*, vol. 7, p. 65.

- [1924] "PLANT ASSOCIATIONS OF THE CHIMNEY ROCK AREA [ARCHULETA COUNTY], COLO."
black and white [1:74,000]

LEGEND

- | | |
|---|-------------------------|
| A. Xerarch succession. Plant associations | 3. Sagebrush |
| 1. <i>Eriogonum</i> | 4. <i>Chrysothamnus</i> |
| 2. <i>Gutierrezia</i> | 5. Mixed shrub |
| | 6. Pinyon-juniper |

- 7. Yellow pine
- 8. *Pseudotsuga*
- 9. *Populus-Salix*

- B. Hydrarch succession. Plant association
- 10. *Populus-Salix*

SCHMOLL, HAZEL MARGUERITE

1935 *Vegetation of the Chimney Rock Area, Pagosa-Piedra Region, Colorado*. Dissertation, Department of Botany, 1932. Private Edition. Chicago, The University of Chicago Libraries, p. 1.

[1927] "SAN JUAN MOUNTAINS FOREST MAP"

black and white

[1:1,500,000]

LEGEND

- 1. Engelmann spruce
- 2. Yellow pine
- 3. Yellow pine-Douglas fir
- 4. Barren

UNITED STATES. *Bureau of Forestry*

1927 In Atwood, W. W., "Utilization of the rugged San Juans." *Economic Geography*, vol. 3, p. 204.

[1930] "MAP OF POND A [AT ALAMOSA], SHOWING CIRCUM-AREAS"

black and white

[1:800]

LEGEND

- 1. Greasewood
- 2. Outer meadow
- 3. Inner meadow
- 4. Marsh
- 5. Smartweed

RAMALEY, FRANCIS

1942 "Vegetation of the San Luis Valley in southern Colorado." *Univ. Colorado Studies*, Series D (Physical and Biol. Sci.), vol. 1, facing p. 254.

[1930] "CAT-TAIL SINK B [AMONG SAND HILLS NEAR ROGGEN, AUGUST 29]"

black and white

[1:350]

LEGEND

- 1. Cat-tail
- 2. Willows
- 3. *Carex*
- 4. Meadow
- 5. Tall grass

RAMALEY, FRANCIS

1939 "Sand-hill vegetation of northeastern Colorado." *Ecological Monographs*, vol. 9, p. 32

1930 "CAT-TAIL SINK A, AMONG SAND HILLS NEAR ROGGEN, COLORADO, AUGUST 6, 1930"

black and white

[1:330]

LEGEND

- 1. Cat-tail
- 2. Willow
- 3. Dogbane
- 4. Tall grass
- 5. Cottonwood

COLORADO

RAMALEY, FRANCIS

1939 "Sand-hill vegetation of northeastern Colorado." *Ecological Monographs*, vol. 9, p. 31.

- [1931] "GOLDENROD SINK [AMONG SAND HILLS NEAR ROGGEN, AUGUST 6]"
black and white [1:380]

LEGEND

- | | |
|---------------|---------------|
| 1. Cottonwood | 4. Rush |
| 2. Willow | 5. Tall grass |
| 3. Goldenrod | |

RAMALEY, FRANCIS

1939 "Sand-hill vegetation of northeastern Colorado." *Ecological Monographs*, vol. 9, p. 32.

- [1933] "ROUGH VEGETATION MAP OF PIKE'S PEAK REGION"
black and white [not calculated]

LEGEND

- | | |
|---------------------------|--------------|
| 1. Plains | 4. Subalpine |
| 2. Chaparral and woodland | 5. Alpine |
| 3. Montane | |

WHITFIELD, C. J.

1933 "The vegetation of the Pike's Peak region." *Ecological Monographs*, vol. 3, p. 81.

- 1934 "SAND HILLS NEAR ROGGEN, COLORADO"
black and white [1:2,520]

LEGEND

- | | |
|--|-------------------------------|
| 1. Dogbane | 9. Willows |
| 2. Poison ivy (<i>Rhus</i>) | 10. Cottonwood |
| 3. Tall grasses | 11. Much <i>Petalostemon</i> |
| 4. <i>Asclepias</i> | 12. Much <i>Nuttallia</i> |
| 5. <i>Rhus rydbergii</i> | 13. Meadow |
| 6. Goldenrod | 14. <i>Oryzopsis-Psoralea</i> |
| 7. <i>Juncus</i> | 15. Cottonwood and willows |
| 8. Much <i>Nuttallia</i> and <i>Eriogonum</i>
<i>annuum</i> | 16. Grass hollow |
| | 17. Tall and mid-grasses |

RAMALEY, FRANCIS

1939 "Sand-hill vegetation of northeastern Colorado." *Ecological Monographs*, vol. 9, p. 4.

- 1935 "NATURAL VEGETATION OF COLORADO"
black and white [1:3,000,000]

LEGEND

- | | |
|--------------------|---------------|
| 1. Shortgrass | 4. Shadscale |
| 2. Other grassland | 5. Greasewood |
| 3. Sandhill | 6. Sagebrush |

- | | |
|-------------------|----------------|
| 7. Chaparral | 10. Sub-alpine |
| 8. Piñon-cedar | 11. Alpine |
| 9. Montane forest | |

MORRIS, MELVIN

1937 Fort Collins, Colorado, Agr. Exp. Sta., Dept. of Range and Pasture Management.

- [1936] "[MUSKEE LAKE, NORTH-CENTRAL COLORADO]" [1:1,470]
black and white

LEGEND

- | | |
|-----------------------------|----------------|
| 1. Floating manna-grass | 4. Shrub zone |
| 2. Smart-weed & bladderwort | 5. Forest zone |
| 3. Sedges | |

JOHNSON, K. RICHARD

1936 "Ecology of a glacial lake in central Colorado." *Univ. Colorado Studies*, vol. 23, p. 238.

- [1941] "VEGETATION OF THE SAN LUIS VALLEY, SHOWING CHIEFLY THE FLOOR AND SUBMARGIN" [1:845,000]
black and white

LEGEND

- | | |
|--------------------------|----------------|
| 1. Greasewood scrub area | 4. Grama grass |
| 2. Tall rabbit brush | 5. Sage |
| 3. Pinyon | 6. Oak |

RAMALEY, FRANCIS

1942 "Vegetation of the San Luis Valley in southern Colorado." *Univ. Colorado Studies*, Series D (Physical and Biol. Sci.), vol. 1, following p. 254.

- [1942] "LAND TYPES IN NORTHWESTERN COLORADO" [1:2,400,000]
black and white

LEGEND

- | | |
|-------------------------------|----------------------------|
| 1. Sagebrush mesa land | 5. Irrigated agriculture |
| 2. Shadscale desert | 6. Juniper-piñon hill land |
| 3. Mountain brush (scrub oak) | 7. Coniferous mountains |
| 4. Dry land agriculture | |

DAVIS, CHARLES M.

1942 "Changes in land utilization on the plateau of northwestern Colorado." *Economic Geography*, vol. 18, p. 380.

- 1943 "CAMP HALE, VEGETATION TYPES" [1:121,000]
in color

LEGEND

1. Unclassified (lakes, buildings, barren filled land, etc.)
2. Alpine vegetation and subalpine meadows
3. Sagebrush

COLORADO

- 4. Bogs or ice-laden soils, with sedges or willows
- 5. Rock surface dominant (cliffs and more or less soil-free rubble)
- 6. Normal coniferous forest (spruce, fir or lodgepole pine)
- 7. Krummholz (matted conifers at timberline forming clumps separated by alpine meadow vegetation)
- 8. Aspen forest

THOMPSON, WILL F.

1958 In Thompson, Will F., and Arthur V. Dodd, *Environmental handbook for the Camp Hale and Pikes Peak areas, Colorado*. Natick, Massachusetts, U. S. Army, Headquarters Quartermaster Res. & Engineering Command, Environmental Protection Res. Div., Tech. Rept. EP-79, facing p. 20.

[1947] "LAND UTILIZATION, MIDDLE PARK, COLORADO"
black and white [1:688,000]

LEGEND

- 1. Cropped land
- 2. Sagebrush-grass
- 3. Coniferous forest
- 4. Aspen grove
- 5. Alpine meadow

HOFFMEISTER, HAROLD A.

1947 "Middle Park and the Colorado-Big Thompson Diversion Project." *Economic Geography*, vol. 23, p. 222.

[1947] "MAP OF THE DISTRIBUTION OF THE PLANT COMMUNITIES ON THE GOTHIC EARTHFLOW"
black and white [1:850]

LEGEND

- 1. *Artemisia tridentata*
- 2. *Carex-juncus*
- 3. *Chaenactis alpina*
- 4. *Festuca thurberi*
- 5. No vegetation
- 6. Perennial forb
- 7. Perennial forb-*Salix*
- 8. *Populus tremuloides*
- 9. *Rosa woodsii*
- 10. *Salix*
- 11. *Senecio atratus*
- 12. *Veratrum californicum*

LANGENHEIM, JEAN H.

1956 "Plant succession on a subalpine earthflow in Colorado." *Ecology*, vol. 37, p. 306.

[1951] "UPPER SOUTH PLATTE RIVER AREA, MISSOURI BASIN [PARK COUNTY], COLORADO"
in color [1:125,500]

LEGEND

- 1. Grass
- 2. Meadow
- 3. Browse-shrub
- 4. Conifer
- 5. Waste
- 6. Barren
- 7. Broad-leaf
- 8. Cultivation

RICHMAN, VAL B.

1953 In *Land planning and classification report relative to public*

domain, South Platte River Basin (Colorado, Wyoming and Nebraska). Salt Lake City, Utah, U. S. Bur. Land Management, Region IV, Missouri River Basin Invest., in pocket.

[1952] "[GENERAL DISTRIBUTION OF THE NATIVE VEGETATION]"
black and white 1:78,000

LEGEND

- | | |
|-------------------|---------------------|
| 1. Lodgepole pine | 3. Engelmann spruce |
| 2. Alpine | |

UNITED STATES. *Forest Service*

1952 *The Fraser Experimental Forest, its work and aims.* Rocky Mountain Forest and Range Exp. Sta., Sta. Paper no. 8, p. 6. Reprinted, 1960 [1:131,600], green, black, and white, in Love, L. D., *The Fraser Experimental Forest, its work and aims.* Rocky Mountain Forest and Range Exp. Sta., Sta. Paper no. 8, revised, p. 3.

[1952] "DOMINANT PLANTS"
black and white [1:68,100]

LEGEND

- | | |
|--------------------------------|-------------------|
| 1. Douglas fir, ponderosa pine | 3. Aspen |
| 2. Grass | 4. Lodgepole pine |

UNITED STATES. *Forest Service*

1952 *The Manitou Experimental Forest . . . its work and aims.* Rocky Mountain Forest and Range Exp. Sta., Sta. Paper no. 7, p. 6.

[1953] "COLORADO GRAZING DISTRICT "5" [FREMONT COUNTY AND SOME ADJACENT AREAS], VEGETATIVE TYPE"
in color [1:200,000]

LEGEND

- | | |
|-----------------|------------------|
| 1. Grass | 6. Waste |
| 2. Meadow | 7. Piñon-juniper |
| 3. Sagebrush | 8. Broad-leaf |
| 4. Browse-shrub | 9. Saltbrush |
| 5. Conifer | 10. Cultivation |

BARON, WILLIAM

1953 Denver, Colorado, U.S. Dept. Interior, Bur. Land Management, Region IV, Missouri River Basin Stud.

[1953] "HUERFANO AREA, VEGETATION TYPE MAP"
in color [1:200,000]

LEGEND

- | | |
|-----------------|------------------|
| 1. Grass | 6. Piñon-juniper |
| 2. Sagebrush | 7. Broad-leaf |
| 3. Browse-shrub | 8. Greasewood |
| 4. Conifer | 9. Cultivation |
| 5. Waste | |

COLORADO

MAHLER, A. and WILLIAM BARON

1953 Denver, Colorado, U. S. Dept. Interior, Bur. Land Management, Region IV, Missouri River Basin Stud.

[1954] "LEADVILLE AREA, VEGETATIVE TYPE"

in color

[1:200,000]

LEGEND

- | | |
|-----------------|------------------|
| 1. Grass | 5. Waste land |
| 2. Sagebrush | 6. Piñon-juniper |
| 3. Browse-shrub | 7. Cultivation |
| 4. Conifer | |

BARON, WILLIAM

1954 Denver, Colorado, U.S. Dept. Interior, Bur. Land Management, Region IV, Missouri River Basin Stud.

[1956] "MAP OF THE GOTHIC NATURAL AREA [NEAR CRESTED BUTTE]"

black and white

[1:26,400]

LEGEND

- | | |
|------------------|--------------|
| 1. Mature forest | 5. Grassland |
| 2. Sub-alpine | 6. Burn |
| 3. Reproduction | 7. Barren |
| 4. Brush | |

MCCULLOUGH, HERBERT A.

1956 "Survey of the Gothic Natural Area." *Scientific Monthly*, vol. 82, p. 27.

1957 "MAP SHOWING DISTRIBUTION OF PRINCIPAL TYPES OF VEGETATION ON PART OF THE COLORADO PLATEAU"

in color

1:1,000,000

LEGEND

- | | |
|---|--|
| I. Mountain Forest Climaxes | 2. Fourwing saltbush faciation |
| 1. Barren or under cultivation | 3. Blackbrush-Mormon tea faciation |
| 2. Spruce-fir formation | 4. Mormon tea faciation |
| 3. Ponderosa pine-Douglas fir formation | 5. Apacheplume facies on recent lava flows |
| 4. Pinyon-juniper formation | B. Short grass subclimax |
| II. Northern Desert Shrub Vegetation | C. Shadscale association |
| A. Sagebrush association | 1. Shadscale faciation |
| 1. Sagebrush faciation | 2. Mat saltbush faciation |
| | 3. Greasewood faciation |

CANNON, H. L. and D. W. HESS

1960 In Cannon, Helen L., *The development of botanical methods of prospecting for uranium on the Colorado Plateau*. Washington, D.C. Geological Survey Bulletin 1085-A.

- [1958] "FRASER EXPERIMENTAL FOREST, COLORADO, NATIVE VEGETATION"
 black and white [1:112,000]

LEGEND

- | | |
|-------------------|---------------------|
| 1. Lodgepole pine | 3. Engelmann spruce |
| 2. Alpine | |

GARSTKA, W. U. *and others*

1958 *Factors affecting snowmelt and streamflow*. Denver, U. S. Bur. Reclamation, Comm. Office, Div. Project Invest., p. 16.

- [1959] "VEGETATION OF THE CRESTED BUTTE AREA"
 black and white [1:86,000]

LEGEND

- | | |
|---|--------------------------------------|
| A. Zonal community types (with successional stages) | 6. Upland herb |
| 1. Sagebrush | 7. Hi-altitude willow [successional] |
| 2. Aspen | B. Transzonal comm. types |
| 3. Spruce-fir | 8. Fescue grassland |
| 4. Lodgepole pine [successional] | 9. Hydric |
| 5. Burn grassland [successional] | 10. Bare area |

LANGENHEIM, JEAN H.

1962 "Vegetation and environmental patterns in the Crested Butte Area, Gunnison County, Colorado." *Ecological Monographs*, vol. 32, facing p. 254.

- [1960] "MAP OF THE RED SNOWBANK ECOSYSTEM [ON NIWOT RIDGE, FRONT RANGE, JEFFERSON COUNTY, COLORADO]"
 black and white [1:1,100]

LEGEND

- | | |
|----------------------------------|--------------------------------|
| 1. Rocky | 6. <i>Juncus drummondii</i> |
| 2. <i>Geum rossii</i> | 7. <i>Sibbaldia procumbens</i> |
| 3. <i>Carex scopulorum</i> | 8. <i>Primula parryi</i> |
| 4. <i>Deschampsia caespitosa</i> | 9. <i>Kobresia myosuroides</i> |
| 5. <i>Carex pyrenaica</i> | 10. <i>Bryum</i> |
- One vegetation type, if it occurs in separate stands, may be indicated by different symbols

OSBURN, WILLIAM S., JR.

1963 "The dynamics of fallout distribution in a Colorado alpine tundra snow accumulation ecosystem." In Schultz, Vincent, and A. W. Klement, Jr. (eds.), *Radioecology*. New York, Reinhold Publishing Corp., and American Institute of Biological Sciences, p. 55.

CONNECTICUT

1919 "MAP SHOWING LOCATION OF THE DEN LANDS OWNED BY THE SCHOOL OF FORESTRY, YALE UNIVERSITY, IN THE TOWNS OF WESTON AND REDDING, CONN."

black and white

[1:9600]

LEGEND

- | | |
|------------------------|--------------|
| 1. Hardwood type | |
| 2. Swamp hardwood type | 3. Old field |

TOUMEY, JAMES W. and RALPH C. HAWLEY

1920 *The Den, a preliminary report, with map, of a tract of woodland given to the school by Mr. and Mrs. Winthrop Perry.* Yale Univ., School Forestry, Bull. no. 5, inserted at back.

1929 "FOREST COVER MAP, MALTBY DIVISION—ELI WHITNEY FOREST, OWNED BY THE NEW HAVEN WATER COMPANY, MANAGED UNDER THE DIRECTION OF THE YALE SCHOOL OF FORESTRY"

in color

[1:9,600]

LEGEND

- | | |
|---------------------|-------------------|
| 1. Hardwood | 6. Barren |
| 2. Hardwood swamp | 7. Open swamp |
| 3. Hemlock-hardwood | 8. Agriculture |
| 4. Old field | 9. Administration |
| 5. Pine | |

Forest types are subdivided into eight classes on basis of age

HAWLEY, RALPH C. and WILLIAM MAUGHAN

1930 *The Eli Whitney Forest, a demonstration of forestry practices.* Yale Univ. School of Forestry Bull. no. 27, facing p. 28.

1929 "FOREST COVER MAP, SALTONSTALL DIVISION—ELI WHITNEY FOREST, OWNED BY THE NEW HAVEN WATER COMPANY, MANAGED UNDER THE DIRECTION OF THE YALE SCHOOL OF FORESTRY"

in color

[1:9,600]

LEGEND

- | | |
|---------------------|-------------------|
| 1. Hardwood | 6. Barren |
| 2. Hardwood swamp | 7. Open swamp |
| 3. Hemlock-hardwood | 8. Agriculture |
| 4. Old field | 9. Administration |
| 5. Pine | |

Forest types are subdivided into eight classes on basis of age

HAWLEY, RALPH C. and WILLIAM MAUGHAN

1930 *The Eli Whitney Forest, a demonstration of forestry practices.*
Yale Univ. School of Forestry Bull. no. 27, facing p. 30.

- [1930] "MAPS OF THE CONNECTICUT COAST, SHOWING THE MORE IMPORTANT
AREAS OF TIDAL-MARSH"
black and white [1:468,000]

LEGEND

1. [Tidal-marsh]

MILLER, WILLIAM R. and FRANK E. EGLER

1950 "Vegetation of the Wequetequock-Pawcatuck tidal-marshes,
Connecticut." *Ecological Monographs*, vol. 20, p. 147.

- 1945 "THE YALE FOREST IN TOLLAND AND WINDHAM COUNTIES,
CONNECTICUT"
in color [1:15,800]

LEGEND

1. Hardwood

2. Hemlock-hardwood

3. Pine-hardwood

4. Pine

5. Red pine

6. Swamp

7. Open: administrative, agricul-
tural, old field

Overprinted symbols indicate age classes

MEYER, WALTER H. and BASIL A. PLUSNIN

1945 *The Yale Forest in Tolland and Windham Counties, Con-
necticut.* Yale Univ., School Forestry, Bull. no. 55, in pocket.

- [1947] "MAP OF THE WEQUETEQUOK-PAWCATUCK TIDAL-MARSHES, STONINGTON
TOWNSHIP, NEW LONDON COUNTY, CONNECTICUT"
black and white [1:22,000]

LEGEND

1. Marsh

MILLER, WILLIAM R. and FRANK E. EGLER

1950 "Vegetation of the Wequetequock-Pawcatuck tidal-marshes,
Connecticut." *Ecological Monographs*, vol. 20, p. 148.

- [1953] "THE MAJOR FOREST TYPES IN CONNECTICUT"
in color [1:845,000]

LEGEND

1. White pine

2. Oak hickory

3. Red maple

4. Northern hardwood

5. Nontyped

GRISWOLD, NORMAN B. and ROLAND H. FERGUSON

1957 *The timber resources of Connecticut.* Northeastern Forest
Exp. Sta., unnumbered publ., pp. 18-19.

CONNECTICUT

1962 "COVER TYPES OF THE SOUTHERN SECTION OF THE BOLLESWOOD NATURAL AREA"
black and white 1:3,500

LEGEND

- | | |
|----------------------|----------------------|
| 1. Oak | 5. Thicket |
| 2. Oak-hemlock | 6. Transition forest |
| 3. Hemlock-hardwoods | 7. Semi-open bog |
| 4. Open fields | 8. Wooded westlands |

NIERING, A. WILLIAM *and* RICHARD H. GOODWIN

1962 "Ecological studies in the Connecticut arboretum natural area
I. Introduction and a survey of vegetation types." *Ecology*, vol. 43, p. 44.

DELAWARE

- [1901] "MAP OF REGION FROM CAPE HENLOPEN TO REHOBOTH BAY"
black and white [1:136,000]

LEGEND

- | | |
|---------------------------|---------------------|
| 1. Desert | 4. Forest |
| 2. Dunes | 5. Heath to thicket |
| 3. Ridge of second series | |

SNOW, LAETITIA M.

1902 "Some notes on the ecology of the Delaware coast." *Botanical Gazette*, vol. 34, p. 287.

- [1959] "THE MAJOR FOREST TYPES OF DELAWARE"
in color [1:1,100,000]

LEGEND

- | | |
|-------------------------|--------------------|
| 1. Southern yellow pine | 4. Oak-gum-cypress |
| 2. Oak-pine | 5. Nonforest |
| 3. Oak-hickory | |

FERGUSON, ROLAND H.

1959 *The timber resources of Delaware*. Northeastern Forest Exp. Sta., unnumbered publ., p. 14.

FLORIDA

- 1881 "MAP OF FLORIDA SHOWING THE DISTRIBUTION OF THE PINE FORESTS,
WITH SPECIAL REFERENCE TO THE LUMBER INDUSTRY"
in color [1:3,200,000]

LEGEND

1. Long leaved pine (*Pinus palustris*)
2. Region from which merchantable pine has been cut
3. Pitch pine (*Pinus cubensis*)

SARGENT, CHARLES SPRAGUE

1884 "Report on the forests of North America (exclusive of Mexico)." U. S. Dept. Interior, Census Office, *Tenth Census of the U. S.*, vol. 9, facing p. 522.

- 1904 "GARDEN KEY"
black and white [1:177,000]

LEGEND

- | | |
|--------------------------------------|-------------------------------------|
| 1. <i>Amaranthus viridis</i> | 19. <i>Iva imbricata</i> |
| 2. <i>Argemone leiocarpa</i> | 20. <i>Lithophila vermicularis</i> |
| 3. <i>Atriplex cristata</i> | 21. <i>Melanthera nivea</i> |
| 4. <i>Bidens leucantha</i> | 22. <i>Opuntia Dillenii</i> |
| 5. <i>Boerhaavia viscosa</i> | 23. <i>Paspalum dislichum</i> |
| 6. <i>Cakile fusiformis</i> | 24. <i>Portulaca oleracea</i> |
| 7. <i>Canavalia obtusifolia</i> | 25. <i>Sesbania sericea</i> |
| 8. <i>Capraria saxifragaefolia</i> | 26. <i>Sesuvium portulacastrum</i> |
| 9. <i>Cenchrus echinatus</i> | 27. <i>Sida carpinifolia</i> |
| 10. <i>Cenchrus tribuloides</i> | 28. <i>Sida diffusa</i> |
| 11. <i>Cyperus brunneus</i> | 29. <i>Sonchus oleraceus</i> |
| 12. <i>Euphorbia adenoptera</i> | 30. <i>Sporobolus purpurascens</i> |
| 13. <i>Euphorbia buxifolia</i> | 31. <i>Suriana maritima</i> |
| 14. <i>Euphorbia havanensis</i> | 32. <i>Syntherisma fimbriatum</i> |
| 15. <i>Eustachys petraea</i> | 33. <i>Tournefortia gnaphalodes</i> |
| 16. <i>Heliotropium curassavicum</i> | 34. <i>Uniola paniculata</i> |
| 17. <i>Hymenocallis caribaea</i> | 35. <i>Valerianodes jamaicensis</i> |
| 18. <i>Ipomoea pes-caprae</i> | |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 228.

- 1904 "MARQUESAS 'E' "
black and white [1:31,700]

LEGEND

- | | |
|---------------------------------|---------------------------------------|
| 1. <i>Agave decipiens</i> | 18. <i>Laguncularia racemosa</i> |
| 2. <i>Ambrosia hispida</i> | 19. <i>Melanthera nivea</i> |
| 3. <i>Andropogon glomeratus</i> | 20. <i>Metastelma bahamense</i> |
| 4. <i>Avicennia nitida</i> | 21. <i>Oreodoxa regia</i> |
| 5. <i>Borrichia arborescens</i> | 22. <i>Passiflora minima</i> |
| 6. <i>Caesalpinia crista</i> | 23. <i>Pharbitis cathartica</i> |
| 7. <i>Cañile fusiformis</i> | 24. <i>Pithecolobium guadalupense</i> |
| 8. <i>Canavalia obtusifolia</i> | 25. <i>Rhizophora mangle</i> |
| 9. <i>Cenchrus tribuloides</i> | 26. <i>Rivina humilis laevis</i> |
| 10. <i>Coccolobis uvifera</i> | 27. <i>Salicornia ambigua</i> |
| 11. <i>Coccothrinax jucunda</i> | 28. <i>Scaevola Plumieri</i> |
| 12. <i>Erithalis fruticosa</i> | 29. <i>Sesuvium portulacastrum</i> |
| 13. <i>Ernodea littoralis</i> | 30. <i>Suriana maritima</i> |
| 14. <i>Euphorbia buxifolia</i> | 31. <i>Tournefortia gnaphalodes</i> |
| 15. <i>Euphorbia havanensis</i> | 32. <i>Uniola paniculata</i> |
| 16. <i>Galactia spiciformis</i> | 33. <i>Waltheria americana</i> |
| 17. <i>Jacquinia keyensis</i> | |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 214.

1904

"MARQUESAS 'A' "

black and white

[1:18,700]

LEGEND

- | | |
|---------------------------------|---------------------------------------|
| 1. <i>Ambrosia hispida</i> | 14. <i>Hymenocallis caribaea</i> |
| 2. <i>Andropogon glomeratus</i> | 15. <i>Iva imbricata</i> |
| 3. <i>Avicennia nitida</i> | 16. <i>Laguncularia racemosa</i> |
| 4. <i>Borrichia arborescens</i> | 17. <i>Lantana involucrata</i> |
| 5. <i>Caesalpinia crista</i> | 18. <i>Melanthera nivea</i> |
| 6. <i>Cañile fusiformis</i> | 19. <i>Paspalum distichum</i> |
| 7. <i>Calonyction album</i> | 20. <i>Pithecolobium guadalupense</i> |
| 8. <i>Cyperus brunneus</i> | 21. <i>Rhizophora mangle</i> |
| 9. <i>Dondia linearis</i> | 22. <i>Sesuvium portulacastrum</i> |
| 10. <i>Erithalis fruticosa</i> | 23. <i>Suriana maritima</i> |
| 11. <i>Euphorbia buxifolia</i> | 24. <i>Tournefortia gnaphalodes</i> |
| 12. <i>Euphorbia havanensis</i> | 25. <i>Uniola paniculata</i> |
| 13. <i>Flaveria linearis</i> | |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 206.

1904

"MAN KEY"

black and white

[1:12,700]

LEGEND

- | | |
|------------------------------------|--------------------------------|
| 1. <i>Alternanthera brasiliana</i> | 6. <i>Bradburya virginiana</i> |
| 2. <i>Andropogon glomeratus</i> | 7. <i>Cañile fusiformis</i> |
| 3. <i>Avicennia nitida</i> | 8. <i>Cenchrus tribuloides</i> |
| 4. <i>Batis maritima</i> | 9. <i>Conocarpus erecta</i> |
| 5. <i>Borrichia arborescens</i> | 10. <i>Euphorbia buxifolia</i> |

- | | |
|----------------------------------|---------------------------------------|
| 11. <i>Euphorbia havanensis</i> | 20. <i>Paspalum distichum</i> |
| 12. <i>Eustachys petraea</i> | 21. <i>Pithecolobium guadalupense</i> |
| 13. <i>Flaveria linearis</i> | 22. <i>Rhizophora mangle</i> |
| 14. <i>Galactia spiciformis</i> | 23. <i>Sesuvium portulacastrum</i> |
| 15. <i>Hymenocallis caribaea</i> | 24. <i>Solanum bahamense</i> |
| 16. <i>Ipomoea pes-caprae</i> | 25. <i>Suriana maritima</i> |
| 17. <i>Iva imbricata</i> | 26. <i>Tournefortia gnaphalodes</i> |
| 18. <i>Melanthera nivea</i> | 27. <i>Uniola paniculata</i> |
| 19. <i>Panicum maximum</i> | 28. <i>Waltheria americana</i> |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 196.

1904 "WOMAN KEY"

black and white

[1:12,100]

LEGEND

- | | |
|---------------------------------|---------------------------------------|
| 1. <i>Andropogon glomeratus</i> | 15. <i>Galactia spiciformis</i> |
| 2. <i>Atriplex cristata</i> | 16. <i>Hymenocallis caribaea</i> |
| 3. <i>Avicennia nitida</i> | 17. <i>Laguncularia racemosa</i> |
| 4. <i>Batis maritima</i> | 18. <i>Lithophila vermicularis</i> |
| 5. <i>Borrchia arborescens</i> | 19. <i>Panicum maximum</i> |
| 6. <i>Cañile fusiformis</i> | 20. <i>Pithecolobium guadalupense</i> |
| 7. <i>Calonyction album</i> | 21. <i>Rhizophora mangle</i> |
| 8. <i>Cenchrus tribuloides</i> | 22. <i>Rivina humilis laevis</i> |
| 9. <i>Conocarpus erecta</i> | 23. <i>Sesuvium portulacastrum</i> |
| 10. <i>Cyperus brunneus</i> | 24. <i>Solanum bahamense</i> |
| 11. <i>Dondia linearis</i> | 25. <i>Suriana maritima</i> |
| 12. <i>Euphorbia buxifolia</i> | 26. <i>Uniola paniculata</i> |
| 13. <i>Euphorbia Garberi</i> | 27. <i>Waltheria americana</i> |
| 14. <i>Euphorbia trichotoma</i> | |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 198.

1904 "KEY C"

black and white

[1:11,900]

LEGEND

- | | |
|------------------------------------|---------------------------------------|
| 1. <i>Alternanthera brasiliana</i> | 16. <i>Melanthera nivea</i> |
| 2. <i>Atriplex cristata</i> | 17. <i>Metastelma bahamense</i> |
| 3. <i>Avicennia nitida</i> | 18. <i>Monanthochloë littoralis</i> |
| 4. <i>Batis maritima</i> | 19. <i>Passiflora minima</i> |
| 5. <i>Borrchia arborescens</i> | 20. <i>Pithecolobium guadalupense</i> |
| 6. <i>Cenchrus tribuloides</i> | 21. <i>Portulaca oleracea</i> |
| 7. <i>Cyperus brunneus</i> | 22. <i>Rhizophora mangle</i> |
| 8. <i>Dondia linearis</i> | 23. <i>Salicornia ambigua</i> |
| 9. <i>Euphorbia buxifolia</i> | 24. <i>Sesuvium portulacastrum</i> |
| 10. <i>Eustachys petraea</i> | 25. <i>Solanum bahamense</i> |
| 11. <i>Flaveria linearis</i> | 26. <i>Sporobolus purpurascens</i> |
| 12. <i>Hymenocallis caribaea</i> | 27. <i>Sporobolus virginicus</i> |
| 13. <i>Laguncularia racemosa</i> | 28. <i>Suriana maritima</i> |
| 14. <i>Lantana involucrata</i> | 29. <i>Waltheria americana</i> |
| 15. <i>Lithophila vermicularis</i> | |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 194.

1904 "MARQUESAS 'F' "

black and white

[1:10,100]

LEGEND

- | | |
|----------------------------------|------------------------------------|
| 1. <i>Avicennia nitida</i> | 9. <i>Hymenocallis caribaea</i> |
| 2. <i>Borrhichia arborescens</i> | 10. <i>Melanthera nivea</i> |
| 3. <i>Cakile fusiformis</i> | 11. <i>Rhizophora mangle</i> |
| 4. <i>Canavalia obtusifolia</i> | 12. <i>Sesuvium portulacastrum</i> |
| 5. <i>Conocarpus erecta</i> | 13. <i>Solanum bahamense</i> |
| 6. <i>Dondia linearis</i> | 14. <i>Suriana maritima</i> |
| 7. <i>Euphorbia buxifolia</i> | 15. <i>Uniola paniculata</i> |
| 8. <i>Euphorbia trichotoma</i> | |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 216.

1904 "BOCA GRANDE KEY"

black and white

[1:9,700]

LEGEND

- | | |
|------------------------------------|---------------------------------------|
| 1. <i>Alternanthera brasiliana</i> | 18. <i>Flaveria linearis</i> |
| 2. <i>Ambrosia hispida</i> | 19. <i>Gossypium religiosum</i> |
| 3. <i>Andropogon glomeratus</i> | 20. <i>Hymenocallis caribaea</i> |
| 4. <i>Avicennia nitida</i> | 21. <i>Laguncularia racemosa</i> |
| 5. <i>Batis maritima</i> | 22. <i>Maytenus phyllanthoides</i> |
| 6. <i>Bumelia microphylla</i> | 23. <i>Melanthera nivea</i> |
| 7. <i>Caesalpinia crista</i> | 24. <i>Metastelma bahamense</i> |
| 8. <i>Cakile fusiformis</i> | 25. <i>Pectis Lessingii</i> |
| 9. <i>Cenchrus echinatus</i> | 26. <i>Phaseolus pauciflorus</i> |
| 10. <i>Cordia sebestena</i> | 27. <i>Pithecolobium guadalupense</i> |
| 11. <i>Cyperus brunneus</i> | 28. <i>Rhizophora mangle</i> |
| 12. <i>Diapedium assurgens</i> | 29. <i>Salicornia ambigua</i> |
| 13. <i>Dondia linearis</i> | 30. <i>Sesuvium portulacastrum</i> |
| 14. <i>Erithalis fruticosa</i> | 31. <i>Smilax havanensis</i> |
| 15. <i>Ernodea littoralis</i> | 32. <i>Solanum bahamense</i> |
| 16. <i>Euphorbia Garberi</i> | 33. <i>Suriana maritima</i> |
| 17. <i>Euphorbia havanensis</i> | 34. <i>Waltheria americana</i> |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 202.

1904 "LOGGERHEAD KEY"

black and white

[1:7,400]

LEGEND

- | | |
|------------------------------|---------------------------------|
| 1. <i>Caesalpinia crista</i> | 4. <i>Canavalia obtusifolia</i> |
| 2. <i>Cakile fusiformis</i> | 5. <i>Capraria biflora</i> |
| 3. <i>Calonyction album</i> | 6. <i>Cordia sebestena</i> |

- | | |
|---------------------------------|-------------------------------------|
| 7. <i>Euphorbia buxifolia</i> | 15. <i>Scaevola Plumieri</i> |
| 8. <i>Hymenocallis caribaea</i> | 16. <i>Sesuvium portulacastrum</i> |
| 9. <i>Ipomoea pes-caprae</i> | 17. <i>Sporobolus virginicus</i> |
| 10. <i>Iva imbricata</i> | 18. <i>Suriana maritima</i> |
| 11. <i>Melanthera nivea</i> | 19. <i>Tournefortia gnaphalodes</i> |
| 12. <i>Opuntia Dillenii</i> | 20. <i>Tribulus cistoides</i> |
| 13. <i>Portulaca oleracea</i> | 21. <i>Uniola paniculata</i> |
| 14. <i>Salvia serotina</i> | |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 234.

1904 "BIRD KEY"

black and white

[1:1,150]

LEGEND

- | | |
|--------------------------------|-------------------------------------|
| 1. <i>Cañile fusiformis</i> | 7. <i>Portulaca oleracea</i> |
| 2. <i>Cenchrus tribuloides</i> | 8. <i>Scaevola Plumieri</i> |
| 3. <i>Cyperus brunneus</i> | 9. <i>Sesuvium portulacastrum</i> |
| 4. <i>Euphorbia buxifolia</i> | 10. <i>Suriana maritima</i> |
| 5. <i>Opuntia Dillenii</i> | 11. <i>Tournefortia gnaphalodes</i> |
| 6. <i>Paspalum distichum</i> | 12. <i>Uniola paniculata</i> |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 232.

1904 "EAST KEY"

black and white

[1:780]

LEGEND

- | | |
|--------------------------------|------------------------------------|
| 1. <i>Cañile fusiformis</i> | 5. <i>Scaevola Plumieri</i> |
| 2. <i>Cenchrus tribuloides</i> | 6. <i>Sesuvium portulacastrum</i> |
| 3. <i>Euphorbia buxifolia</i> | 7. <i>Tournefortia gnaphalodes</i> |
| 4. <i>Iva imbricata</i> | 8. <i>Uniola paniculata</i> |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., Vol. 2, p. 224.

1904 "MARQUESAS 'G' "

black and white

[1:730]

LEGEND

- | | |
|----------------------------------|-------------------------------------|
| 1. <i>Avicennia nitida</i> | 9. <i>Iva imbricata</i> |
| 2. <i>Borrichia arborescens</i> | 10. <i>Laguncularia racemosa</i> |
| 3. <i>Cenchrus tribuloides</i> | 11. <i>Paspalum distichum</i> |
| 4. <i>Cyperus brunneus</i> | 12. <i>Rhizophora mangle</i> |
| 5. <i>Euphorbia buxifolia</i> | 13. <i>Sesuvium portulacastrum</i> |
| 6. <i>Euphorbia havanensis</i> | 14. <i>Suriana maritima</i> |
| 7. <i>Euphorbia heterophylla</i> | 15. <i>Tournefortia gnaphalodes</i> |
| 8. <i>Euphorbia trichotoma</i> | 16. <i>Uniola paniculata</i> |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 218.1904 "BALLAST KEY"
black and white

[1:660]

LEGEND

- | | |
|---------------------------------|--------------------------------------|
| 1. <i>Ambrosia hispida</i> | 12. <i>Euphorbia buxifolia</i> |
| 2. <i>Andropogon glomeratus</i> | 13. <i>Hymenocallis caribaea</i> |
| 3. <i>Atriplex cristata</i> | 14. <i>Iva imbricata</i> |
| 4. <i>Avicennia nitida</i> | 15. <i>Monanthonchloë littoralis</i> |
| 5. <i>Batis maritima</i> | 16. <i>Rhizophora mangle</i> |
| 6. <i>Borrchia arborescens</i> | 17. <i>Salicornia ambigua</i> |
| 7. <i>Cañile fusiformis</i> | 18. <i>Sesuvium portulacastrum</i> |
| 8. <i>Canavalia obtusifolia</i> | 19. <i>Suriana maritima</i> |
| 9. <i>Cenchrus tribuloides</i> | 20. <i>Tournefortia gnaphalodes</i> |
| 10. <i>Conocarpus erecta</i> | 21. <i>Uniola paniculata</i> |
| 11. <i>Cyperus brunneus</i> | |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 200.1904 "SAND OR HOSPITAL KEY"
black and white

[1:560]

LEGEND

- | | |
|-------------------------------|-----------------------------------|
| 1. <i>Euphorbia buxifolia</i> | 4. <i>Sesuvium portulacastrum</i> |
| 2. <i>Ipomoea pes-caprae</i> | 5. <i>Uniola paniculata</i> |
| 3. <i>Iva imbricata</i> | |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 226.1904 "MARQUESAS 'D'"
black and white

[1:410]

LEGEND

- | | |
|---------------------------------|---------------------------------------|
| 1. <i>Ambrosia hispida</i> | 9. <i>Melanthera nivea</i> |
| 2. <i>Borrchia arborescens</i> | 10. <i>Pithecolobium guadalupense</i> |
| 3. <i>Caesalpinia crista</i> | 11. <i>Rhizophora mangle</i> |
| 4. <i>Cyperus brunneus</i> | 12. <i>Rivina humilis laevis</i> |
| 5. <i>Ernodea littoralis</i> | 13. <i>Solanum bahamense</i> |
| 6. <i>Euphorbia buxifolia</i> | 14. <i>Sporobolus virginicus</i> |
| 7. <i>Laguncularia racemosa</i> | 15. <i>Suriana maritima</i> |
| 8. <i>Lantana involucrata</i> | 16. <i>Uniola paniculata</i> |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 212.

1904 "MARQUESAS 'B' "
black and white [1:320]

LEGEND

- | | |
|---------------------------------|------------------------------------|
| 1. <i>Andropogon glomeratus</i> | 7. <i>Dondia linearis</i> |
| 2. <i>Avicennia nitida</i> | 8. <i>Euphorbia buxifolia</i> |
| 3. <i>Borrichia arborescens</i> | 9. <i>Laguncularia racemosa</i> |
| 4. <i>Canavalia obtusifolia</i> | 10. <i>Sesuvium portulacastrum</i> |
| 5. <i>Cyperus brunneus</i> | 11. <i>Suriana maritima</i> |
| 6. <i>Distichlis maritima</i> | 12. <i>Uniola paniculata</i> |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 208.

1904 "MARQUESAS 'I' "
black and white [1:290]

LEGEND

- | | |
|---------------------------------|--------------------------------|
| 1. <i>Avicennia nitida</i> | 8. <i>Eustachys petraea</i> |
| 2. <i>Borrichia arborescens</i> | 9. <i>Iva imbricata</i> |
| 3. <i>Cenchrus tribuloides</i> | 10. <i>Rhizophora mangle</i> |
| 4. <i>Conocarpus erecta</i> | 11. <i>Suriana maritima</i> |
| 5. <i>Cyperus brunneus</i> | 12. <i>Uniola paniculata</i> |
| 6. <i>Euphorbia buxifolia</i> | 13. <i>Waltheria americana</i> |
| 7. <i>Euphorbia havanensis</i> | |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 222.

1904 "MARQUESAS 'C' "
black and white [1:250]

LEGEND

- | | |
|---------------------------------|---------------------------------|
| 1. <i>Atriplex cristata</i> | 9. <i>Laguncularia racemosa</i> |
| 2. <i>Calonyction album</i> | 10. <i>Metastelma bahamense</i> |
| 3. <i>Canavalia obtusifolia</i> | 11. <i>Pharbitis cathartica</i> |
| 4. <i>Cyperus brunneus</i> | 12. <i>Rhizophora mangle</i> |
| 5. <i>Euphorbia havanensis</i> | 13. <i>Solanum bahamense</i> |
| 6. <i>Euphorbia trichotoma</i> | 14. <i>Suriana maritima</i> |
| 7. <i>Flaveria linearis</i> | 15. <i>Uniola paniculata</i> |
| 8. <i>Iva imbricata</i> | |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 210.

1904 "MARQUESAS 'H' "
black and white [incalculable]

LEGEND

- | | |
|-----------------------------|---------------------------------|
| 1. <i>Atriplex cristata</i> | 3. <i>Borrichia arborescens</i> |
| 2. <i>Avicennia nitida</i> | 4. <i>Cakile fusiformis</i> |

- | | |
|---------------------------------|------------------------------------|
| 5. <i>Dondia linearis</i> | 10. <i>Salicornia ambigua</i> |
| 6. <i>Euphorbia buxifolia</i> | 11. <i>Sesuvium portulacastrum</i> |
| 7. <i>Laguncularia racemosa</i> | 12. <i>Sporobolus purpurascens</i> |
| 8. <i>Melanthera nivea</i> | 13. <i>Suriana maritima</i> |
| 9. <i>Rhizophora mangle</i> | |

MILLSPAUGH, CHARLES FREDERICK

1907 *Flora of the sand keys of Florida*. Chicago, Field Columbian Mus., Publ. no. 118, Bot. Ser., vol. 2, p. 220.

- 1913 "PHYTOGEOGRAPHIC MAP OF SOUTH FLORIDA"
black and white 1:500,000

LEGEND

- | | |
|--|----------------------------|
| 1. Forest of <i>Pinus caribaea</i> | 6. Coastal mangrove swamps |
| 2. Forest of <i>Pinus clausa</i> | 7. Prairie vegetation |
| 3. Forest of <i>Pinus palustris</i> | 8. Freshwater marshes |
| 4. Forest of <i>Annona glabra</i> | 9. Everglades |
| 5. Cypress swamps of <i>Taxodium distichum</i> | 10. Hammock vegetation |
| | 11. Pine savannas |

HARSHBERGER, JOHN W.

1914 "The vegetation of south Florida, south of 27° 30' North, exclusive of the Florida Keys." *Trans. Wagner Free Inst. of Science of Philadelphia*, vol. 7, pt. 3, inserted at back.

- [1913] "LOCATION OF BANANA HOLES IN SOUTH FLORIDA"
black and white [1:120,000]

LEGEND

- | | |
|---------------------|-----------------------|
| 1. Everglades | b. Gossman's prairie |
| 2. Pine forest | c. Sterrett's prairie |
| 3. Coastal prairie | 4. Banana holes |
| a. Caldwell prairie | |

HARSHBERGER, JOHN W.

1914 "The vegetation of south Florida, south of 27° 30' North, exclusive of the Florida Keys." *Trans. Wagner Free Inst. of Science of Philadelphia*, vol. 7, p. 108.

- [1914] "[VEGETATION MAP OF THE OCALA AREA]"
black and white [1:158,000]

LEGEND

- | | |
|------------------------------|--|
| 1. High pine land | 8. Scrub |
| 2. High pine with black jack | 9. Prairies |
| 3. High pine with turkey oak | 10. Swamps |
| 4. Saw palmetto flatwoods | 11. Short leaf pine and cabbage palmetto |
| 5. Open flatwoods | 12. Mixed vegetation |
| 6. Hammock | |
| 7. Red oak woods | |

GUNTER, HERMAN *and others*

1915 *In* Harper, Roland M., "Natural resources survey of an area

in central Florida, including a part of Marion, Levy, Citrus, and Sumter counties [Ocala Area]. Vegetation types." *Ann. Rept. Florida Geol. Surv.*, no. 7, facing p. 134.

[1917] "MAP OF THE UNIVERSITY OF FLORIDA VICINITY, SHOWING TYPES OF VEGETATION"

black and white

[incalculable]

LEGEND

- | | |
|---------------------------|--------------|
| 1. Pine timber | 3. Wet marsh |
| 2. Oak, hickory, magnolia | 4. Fields |

DOZIER, HERBERT L.

1920 "An ecological study of hammock and piney woods insects in Florida." *Annals of the Entomological Society of America*, vol. 13, p. 333.

1917 "PLAT OF SECTION 36 TP. 60 S., R. 35 E. [SOUTH FLORIDA]"

black and white

incalculable

LEGEND

- | | |
|--------------------------------|----------------|
| 1. Black mangrove | 4. Buttonwood |
| 2. Black mangrove and saltweed | 5. Stopperwood |
| 3. Red mangrove | |

LIVINGSTON, A. R.

1940 *In* Davis, John Henry, Jr., *The ecology and geologic rôle of mangroves in Florida*. Carnegie Inst. Washington, Papers from Tortugas Lab., vol. 32 (reprinted from Carnegie Inst. Washington, Publ. no. 517), p. 363.

[1925] "[BIOTIC AREAS OF FLORIDA]"

black and white

[1:11,200,000]

LEGEND

- | | |
|--------------------------------|-------------------------------|
| 1. S. E. coniferous forest | 5. Temperate deciduous forest |
| 2. Grass swamp | 6. Magnolia hammock |
| 3. Tropical rain forest climax | 7. Flatwoods |
| 4. Tree swamp | 8. Cypress swamp |

WATSON, J. R.

1926 *In* Shreve, Forrest, and V. E. Shelford, "Descriptive list of Middle American biota (central Mexico to the Amazon)." *In* Shelford, Victor E. (ed.), *Naturalist's guide to the Americas*. Baltimore, Williams & Wilkins Co., facing p. 78 (inset).

1925 "GENERALIZED MAP OF FLORIDA"

in color

1:1,000,000

LEGEND

1. Deep dry sand, including scrub . . . Vegetation mostly longleaf pine, black-jack and turkey oaks, wire grass, etc. (high pine land). The white phase

- ... usually has a vegetation known as scrub, consisting of spruce pine and various evergreen shrubs
2. Sandy uplands with clay subsoil . . . Vegetation mostly long-leaf pine and wire-grass, with many cypress ponds in shallow depressions, and swamps along streams
 3. Flatwoods with clay or hardpan subsoil . . . Vegetation mostly long-leaf pine and saw palmetto (flatwoods), interspersed with cypress ponds, bays and swamps
 4. Flatwoods with calcareous or phosphatic subsoil . . . The vegetation . . . is similar to that of the other type [3], except that slash pine often takes the place of long-leaf, there is more low hammock vegetation, and the pines are entirely absent over large areas, making prairies
 5. Miscellaneous hammocks . . . Vegetation . . . varied
 6. Red loam, non-calcareous . . . Vegetation mostly various pines and oaks
 7. Red loam, calcareous or phosphatic . . . Vegetation mostly short-leaf pines and various hardwoods
 8. Limestone . . . Vegetation in Dade County mostly slash pine and saw palmetto, with many patches of tropical hammock
 9. Marl . . . Vegetation mostly grasses and sedges, with many cypress ponds in St. Lucie County and tropical hammocks and mangrove swamps at the south end of the mainland
 10. Muck . . . and peat, including the Everglades . . . The vegetation of the Everglades is mostly saw-grass, and that of the other muck areas mostly cypress and various hardwoods
 11. Miscellaneous coast soils. Coast strips, composed of patches of dune sand, scrub, flatwoods, salt marsh, mangrove swamp, shell mounds, hammocks, etc. . . . Vegetation mostly cabbage palmetto, live oak, and numerous other evergreen trees, with coarse grasses and rushes in the marsh areas

HARPER, ROLAND M.

1926 "History of soil investigations in Florida and description of the new soil map." *Florida Geol. Surv., Ann. Rept.* no. 17 (1924-1925), in pocket.

1933 "PHYTOGEOGRAPHIC MAP OF NORTHERN FLORIDA AND CENTRAL FLORIDA"
black and white 1:4,800,000

LEGEND

- | | |
|--|---|
| 1. Swamp. Small areas also present in all other regions. | 5. Pine flatwoods |
| 2. Deciduous hardwoods—uplands | 6. Semi-flatwoods |
| 3. Deciduous hardwoods | 7. Lime-sink regions: somewhat xeric conditions, "high-pine", scrub, etc. |
| 4. Hammock regions | |

ROGERS, J. SPEED

1933 "The ecological distribution of the crane-flies of northern Florida." *Ecological Monographs*, vol. 3, no. 1, p. 69.

1934 "AREAS CHARACTERIZED BY THE MAJOR FOREST TYPES, STATE OF FLORIDA"
in color 1:1,000,000

LEGEND

- | | |
|---------------------------|-----------------------|
| 1. Longleaf-slash | 3. Longleaf-scrub oak |
| 2. Longleaf-slash-cypress | 4. Slash-cypress |

FLORIDA

- | | |
|-------------------------------|--------------------------------|
| 5. Loblolly-hardwoods | 8. Cypress-hardwoods |
| 6. Scrub pine | 9. Scrub cypress |
| 7. Mixed bottomland hardwoods | 10. Marsh, prairie, sand dunes |

UNITED STATES. *Forest Service*
1934 Southern Forest Exp. Sta.

- [1936] "AREAS CHARACTERIZED BY MAJOR FOREST TYPES, NORTHEASTERN FLORIDA"
in color [1:1,200,000]

LEGEND

- | | |
|---------------------------|----------------------------------|
| 1. Longleaf-slash | 5. Mixed bottom-land hardwoods |
| 2. Longleaf-slash-cypress | 6. Cypress-hardwoods |
| 3. Loblolly-hardwoods | 7. Prairie, marsh, or sand dunes |
| 4. Scrub pine | |

ANON.

1938 In Ineson, F. A., and I. F. Eldredge, *Forest resources of northeastern Florida*. U. S. Dept. Agr., Misc. Publ. no. 313, inserted at back.

- [1938] "AREAS CHARACTERIZED BY THE MAJOR FOREST TYPES IN CENTRAL AND SOUTH FLORIDA"
green, black, and white [1:1,600,000]

LEGEND

- | | |
|---------------------------|-------------------------------|
| 1. Longleaf-slash | 5. Cypress-hardwoods |
| 2. Longleaf-slash-cypress | 6. Scrub cypress |
| 3. Slash-cypress | 7. Marsh, prairie, sand dunes |
| 4. Scrub pine | |

UNITED STATES. *Forest Service*

1938 In Eldredge, I. F., *Forest resources of central and south Florida*. Southern Forests Exp. Sta., Forest Surv. Release no. 38, p. 3.

- [1938] "GENERALIZED VEGETATION MAP OF FLORIDA"
in color [1:1,200,000]

LEGEND

- | | |
|--|--|
| 1. Clay pine land | 9. Low marl hammock land |
| 2. Rolling sandy pine land | 10. Marl prairie land |
| 3. Flat pine land | 11. Sandy prairie land |
| 4. Miami pine land | 12. Fresh-water marsh land |
| 5. Scrub land | 13. Tidal marsh, mangrove swamp
and coastal beach |
| 6. Red clay hammock land | 14. Swamp |
| 7. Sandy hammock land | 15. Mixture of 3, 9, 10, 11, and 14 |
| 8. Calcareous and phosphatic
hammock land | |

HENDERSON, J. R.

1939 *The soils of Florida*. Univ. Florida, Agr. Exp. Sta., Bull. no. 334, in detached envelope.

- [1940] "PART OF U. S. COAST AND GEODETIC SURVEY TOPOGRAPHIC MAP NO. T-5538, SHOWING LOCATION OF STATIONS, AND SOME RECENTLY DEVELOPED

SWAMPS AND LAND [IN EXTREME SOUTHEAST PENINSULAR FLORIDA AND ON
KEY LARGO AND ADJACENT KEYS]"

black and white

[1:80,000]

LEGEND

- | | |
|---------------------------------|---------------|
| 1. Marsh and scattered hammocks | 3. [Hammocks] |
| 2. Mangrove | 4. Mud flats |

DAVIS, JOHN HENRY, JR.

1940 *The ecology and geologic rôle of mangroves in Florida*. Carnegie Inst. Washington, Papers from Tortugas Lab., vol. 32 (reprinted from Carnegie Inst. Washington, Publ. no. 517), facing p. 384.

[1940] "PART OF U. S. COAST AND GEODETIC SURVEY TOPOGRAPHIC MAP NO.
T-5441, SHOWING SOME RECENTLY DEVELOPED SWAMPS AND LAND [IN FLO-
RIDA BAY ADJACENT TO EXTREME SOUTH PENINSULAR FLORIDA]"

black and white

[1:40,000]

LEGEND

- | | |
|---------------------------------------|--------------|
| 1. [Marsh with scattered
hammocks] | 3. Hammock |
| 2. Mangrove | 4. Mud flats |

DAVIS, JOHN HENRY, JR.

1940 *The ecology and geologic rôle of mangroves in Florida*. Carnegie Inst. Washington, Papers from Tortugas Lab., vol. 32 (reprinted from Carnegie Inst. Washington, Publ. no. 517, facing p. 386).

1941 "VEGETATION MAP OF THE UNIV. OF FLORIDA CONSERVATION RESERVE,
WELAKA, FLA."

black and white

[1:31,700]

LEGEND

- | | |
|---|--|
| A. Well drained areas other than
hammocks | C. Hammocks |
| 1. [<i>Pinus</i>] <i>australis</i> -[<i>Quercus</i>]
<i>laevis</i> | 9. Xeric |
| 2. <i>P. australis</i> - <i>Q. cinerea</i> | 10. Mesic |
| 3. <i>P. clausa</i> - <i>Q.</i> spp. (dwarf) | 11. Hydric |
| 4. <i>Q.</i> spp. scrubby | D. Seasonally flooded areas |
| B. Poorly drained flatwoods | 12. River swamp |
| 5. <i>P. australis</i> - <i>A[ristida]</i>
<i>stricta</i> | 13. Bayheads |
| 6. <i>P. palustris</i> | 14. Marsh |
| 7. <i>P. serotina</i> - <i>Desmothamnus</i> | E. [Other types] |
| 8. Grassy | 15. Flatwoods ponds |
| | 16. Shell pit and mound |
| | 17. Ruderal areas, old fields,
lawns, "airport", etc. |

LAESSLE, ALBERT MIDDLETON

1942 *The plant communities of the Welaka area with special refer-
ence to correlations between soils and vegetational succession*. Univ.
Florida Publ., Biol. Sci. Ser., vol. 4, no. 1, p. 25. (Reprinted with ex-
panded legend, 1956 [1:41,000] in Van Pelt, Arnold F., Jr., "The

ecology of the ants of the Welaka Reserve, Florida (Hymenoptera: Formicidae).” *American Midland Naturalist*, vol. 56, p. 362.)

1943 “VEGETATIONAL MAP OF SOUTHERN FLORIDA”
in color

1:400,000

LEGEND

- A. General vegetation
 - 1. Scrub forests
 - 2. Hammock forests
 - 3. Bay tree forests
 - 4. Inland swamps
 - 5. Cypress forests
 - 6. Cypress-heads or domes
 - 7. Pine flatwoods forests
 - 8. High pine forests
 - 9. Miami rockland pine forests
 - 10. Miami open pine forests
 - 11. Mangrove swamps
 - 12. Mangrove swamps and salt-water marshes
 - 13. Salt-water marshes
 - 14. Salt prairie
 - 15. Fresh-water marshes
 - 16. Wet prairies
 - 17. Saw-palmetto or dry prairies
 - 18. Southern coast marsh prairies
 - 19. Coastal beach and dune vegetation
- B. Main Everglades vegetation
 - 20. Saw-grass marshes (medium dense to sparse)
 - 21. Saw-grass marshes (dense)
 - 22. Saw-grass marshes (with wax-myrtle thickets)
 - 23. Willow and elderberry zone (mostly cultivated)
 - 24. Custard-apple zone (mostly cultivated)
 - 25. Saw-grass marshes (with abundant ferns and cat-tails)
 - 26. Sloughs, ponds, and lakes (with aquatic plants)
 - 27. Tree-islands, bay tree forests
 - 28. Tree-islands, hammock forests
 - 29. Marsh prairies, southern Everglades

DAVIS, JOHN HENRY, JR.

1943 *The natural features of southern Florida, especially the vegetation, and the Everglades.* Florida Geol. Surv., Bull. no. 25, inserted at back.

[1943] “MAP OF SOILS AND VEGETATION OF THE IMMOKALEE AREA, SHOWING INTIMATE RELATIONSHIPS BETWEEN SOIL TYPE AND TYPE OF VEGETATION”
black and white

[1:103,000]

LEGEND

- 1. Pine flatwoods
- 2. Wet and dry prairies
- 3. Pine and cabbage palm
- 4. Scrub oak and pine
- 5. Pine and scrub oak
- 6. Pine flatwoods or prairies
- 7. Pine and cabbage-palm flatwoods
- 8. Wet prairie ponds
- 9. Cabbage-palm and hardwood hammocks

10. Swamps of cypress and hardwoods

11. Marsh ponds

12. Marshes of saw-grass and other marsh herbs

DAVIS, JOHN HENRY, JR.

1943 *The natural features of southern Florida, especially the vegetation, and the Everglades.* Florida Geol. Surv., Bull. no. 25, p. 101.

[1948] "MAP OF THE SOUTHEAST SALINE EVERGLADES (EXCEPT NORTHEASTERN PART)"

black and white

[1:316,000]

LEGEND

1. Swamp (continuously submerged)
2. Dwarf cypress
3. Paradise Key
4. Belt 1 [The pine forest]
5. Belt 2 [The *Aristida* grassland]
6. Belt 3 [The upper Saline Everglades]
7. Belt 4 [The lower Saline Everglades]
8. Belt 5 [Mangrove-sawgrass vegetation]
9. Belt 6 [Mangrove-tidal marsh vegetation]
10. Belt 7 [*Rhizophora* border]

EGLER, FRANK E.

1952 "Southeast Saline Everglades vegetation, Florida, and its management." *Vegetatio*, vol. 3, p. 217.

1950 "MAJOR FOREST TYPES—FLORIDA"

in color

[1:1,900,000]

LEGEND

- | | |
|------------------------|------------------------|
| 1. Longleaf-slash pine | 6. Oak-gum-cypress |
| 2. Loblolly pine | 7. Unproductive forest |
| 3. Sand pine | 8. Palms |
| 4. Oak-pine | 9. Prairie or marsh |
| 5. Oak-hickory | |

UNITED STATES. *Forest Service. Southeastern Forest Experiment Station*

1952 In Larson, Robert W., *The timber supply situation in Florida.* U.S. Dept. Agr., Forest Resource Rept. no. 6, inserted at back. Reprinted, 1961 [1:2,500,000], in Larson, Robert W., and Marcus H. Goforth, *Florida's timber.* Southeastern Forest Exp. Sta., Forest Surv. Release no. 57, p. [iii].

1953 "SKETCH MAP OF PART OF THE OFFSHORE BAR NORTH OF FORT PIERCE, FLORIDA"

black and white

1:26,400

LEGEND

- | | |
|-------------|--------------------|
| 1. Mangrove | 4. Palmetto scrub |
| 2. Hammock | 5. Grass and weeds |
| 3. Palms | 6. Dunes |

FLORIDA

NIELSON, E. T. and A. T. NIELSON

1953 "Field observations on the habits of *Aedes Taeniorhynchus*." *Ecology*, vol. 34, p. 142.

[1955] "THE PRINCIPAL HABITATS AND VEGETATIONAL GROUPINGS ON SANIBEL ISLAND"

black and white [1:13,900]

LEGEND

- | | |
|-----------------------------------|------------------------------------|
| 1. Outer shell ridge | 6. Mangrove swamp |
| 2. Grassland and prairie | 7. Palmetto jungle and mixed woods |
| 3. <i>Spartina</i> marsh | 8. Cactus thicket |
| 4. Grassland and palmetto prairie | |
| 5. Salt flat | |

COOLEY, GEORGE R.

1955 "The vegetation of Sanibel Island, Lee County, Florida." *Rhodorora*, vol. 57, p. 273.

1960 "CORKSCREW SWAMP SANCTUARY, FLORIDA"

black and white 1:61,100

LEGEND

- | | |
|-------------------|------------------------------------|
| 1. Bald cypress | 6. Wet prairie |
| 2. Pond cypress | 7. Marsh |
| 3. Pine flatwoods | 8. Ponds |
| 4. Hammocks | 9. Lettuce and custard apple ponds |
| 5. Willow | |

NATIONAL AUDUBON SOCIETY

1960 *Corkscrew Swamp Sanctuary, a self-guided tour of the boardwalk*. Immokalee, Fla. Map on back cover.

1962 "NATURAL VEGETATION (OF FLORIDA)"

in color 1:2,900,000

LEGEND

1. Northern grassy longleaf pine forest
2. Northern pine and hardwood forest. Longleaf pine, loblolly, hickory, oak, and some grass
3. Northern-central hardwood and pine forest. Oak, longleaf pine and some grass
4. Hardwood forest. Laurel oak, live oak, hickory, sweet gum, magnolia
5. Upland pine and oak forest. Slash and longleaf pine, oak with an undergrowth of saw palmetto
6. Dry sandy scrub. Sand pine, scrub oaks, saw palmetto, rosemary
7. Pine flatwoods. Slash and longleaf pine, oaks, cabbage (sabal) palm, some grass
8. Swamp forest. Water oak, laurel oak, sweet gum, black gum, bays, cypress, cabbage palm
9. Grasslands. Grasses of great variety, saw palmetto, paw-paw, "islands" of cabbage palm
10. Everglades. Saw grasses, wild millet, bulrushes, "islands" of hardwoods, cypress and cabbage palm

11. Cypress swamps and woodlands. Cypress, oaks, bays, gumbo-limbo, palmetto
12. Southern slash pine forest. Slash pine, cypress, bays, palms, palmetto
13. Southern wet marl prairies. Cabbage palm, saw grass
14. Mangrove swamps. Three mangroves (bushes to trees)
15. Tropical types. Palms, many tropical hardwoods, some pines
16. Coastal marshes, strands, and dunes. Variety of herbs and woody plants, depending upon height above tide level

DAVIS, JOHN H.

1964 *In* Raisz, Erwin *and others*. *Atlas of Florida*. Gainesville University of Florida Press. p. 15.

62 "EVERGLADES NATIONAL PARK—GENERAL VEGETATION TYPES"
 green and white 1:316,800

LEGEND

- | | |
|---------------------------------------|---------------------------------|
| 1. Sawgrass and broadleaf
hammocks | 4. Coastal prairie |
| 2. Mangrove | 5. Cypress sloughs and sawgrass |
| 3. Pine | 6. Dwarf cypress and sawgrass |
| | 7. Unclassified |

MILLS, HOWARD I. *and others*

1964 *Quantitative physiognomic analysis of the vegetation of the Florida Everglades*. Vicksburg, Mississippi. U.S. Corps of Engineers, Waterways Experiment Station. p. 6.

GEORGIA

1881 "MAP OF GEORGIA SHOWING THE DISTRIBUTION OF PINE FORESTS, WITH SPECIAL REFERENCE TO THE LUMBER INDUSTRY"

in color

[1:2,100,000]

LEGEND

1. Long leaved pine (*Pinus palustris*)
2. Long leaved pine mixed with short leaved pine (*P. mitis*) and hardwoods
3. Region from which merchantable pine has been cut

SARGENT, CHARLES SPRAGUE

1884 "Report on the forests of North America (exclusive of Mexico)." U. S. Dept. Interior, Census Office, *Tenth Census of the U. S.*, vol. 9, facing p. 519.

[1902] "PLAT OF AN EXPERIMENTAL TURPENTINE FOREST IN GEORGIA, SHOWING THE DISTRIBUTION OF CUPPED AND BOXED TREES IN COMPARATIVE TESTS MADE ON A FIRST YEAR ("VIRGIN") CROP"

black and white

[incalculable]

LEGEND

- | | |
|---------------------------------|------------------|
| 1. Cypress | 3. Longleaf pine |
| 2. Cuban pine "old field slash" | |

HERTY, CHARLES H.

1903 *A new method of turpentine orcharding*. U. S. Dept. Agr., Bur. Forestry, Bull. no. 40, p. 21.

1934 "AREAS CHARACTERIZED BY THE MAJOR FOREST TYPES, STATE OF GEORGIA"

in color

1:1,000,000

LEGEND

- | | |
|---------------------------------|-------------------------------|
| 1. Longleaf | 6. Loblolly-hardwoods |
| 2. Longleaf-slash | 7. Mixed upland hardwoods |
| 3. Longleaf-slash-cypress | 8. Mixed bottomland hardwoods |
| 4. Shortleaf-hardwoods | 9. Cypress hardwoods |
| 5. Shortleaf-loblolly-hardwoods | 10. Marsh, coastal islands |

UNITED STATES. *Forest Service*

1934 Southern Forest Experiment Station. Reprinted 1943 1:200,000 in Spillers, A. R. and I. F. Eldredge. *Georgia Forest Resources and Industries*. U.S. Department of Agriculture, miscellaneous publication no. 501.

1936 "AREAS CHARACTERIZED BY MAJOR FOREST TYPES, NORTH CENTRAL GEORGIA"
 green, black and white [1:1,900,000]

LEGEND

- | | |
|------------------------|---------------------------------|
| 1. Longleaf | 3. Shortleaf-loblolly-hardwoods |
| 2. Shortleaf-hardwoods | 4. Loblolly-hardwoods |

UNITED STATES. *Forest Service*

1939 *In* Spillers, A. R., *Forest resources of north central Georgia*. Southern Forest Exp. Sta., Forest Survey Release no. 44, p. 3.

1936 "AREAS CHARACTERIZED BY THE MAJOR FOREST TYPES IN CENTRAL GEORGIA"
 green, black and white [1:1,900,000]

LEGEND

- | | |
|-----------------------|---------------------------------|
| 1. Longleaf | 4. Shortleaf-loblolly-hardwoods |
| 2. Longleaf-slash | 5. Mixed bottomland hardwoods |
| 3. Loblolly-hardwoods | |

UNITED STATES. *Forest Service*

1939 *In* Spiller, A. R., *Forest resources of central Georgia*. Southern Forest Exp. Sta., Forest Survey Release no. 41, p. 3.

1937 "AREAS CHARACTERIZED BY MAJOR FOREST TYPES, SOUTH GEORGIA"
 in color [1:1,450,000]

LEGEND

- | | |
|---------------------------------|--------------------------------|
| 1. Longleaf | 5. Loblolly-hardwoods |
| 2. Longleaf-slash | 6. Mixed bottom-land hardwoods |
| 3. Longleaf-slash-cypress | 7. Cypress-hardwoods |
| 4. Shortleaf-loblolly-hardwoods | 8. Marsh, coastal islands |

LEHRBAS, M. M. and I. F. ELDREDGE

1941 *Forest resources of south Georgia*. U. S. Dept. Agr., Misc. Publ. no. 390, inserted at back.

1941 "AREAS CHARACTERIZED BY MAJOR FOREST TYPES, STATE OF GEORGIA"
 in color [1:2,000,000]

LEGEND

- | | |
|---------------------------------|--------------------------------|
| 1. Longleaf | 6. Loblolly-hardwoods |
| 2. Longleaf-slash | 7. Mixed uplands hardwoods |
| 3. Longleaf-slash-cypress | 8. Mixed bottom-land hardwoods |
| 4. Shortleaf-hardwoods | 9. Cypress-hardwoods |
| 5. Shortleaf-loblolly-hardwoods | 10. Marsh, coastal islands |

UNITED STATES. *Forest Service*

1941 Appalachian Forest Exp. Sta. [former name for Southeastern Forest Exp. Sta.] Reprinted, 1943 *in* Spillers, A. R., and I. F. Eldredge, *Georgia forest resources and industries*. U. S. Dept. Agr., Misc. Publ. no. 501, inserted at back.

[1947] "COMMUNITIES ON [OLIVINE] DEPOSITS [AT LAUREL CREEK, RAUBUN COUNTY, GEORGIA]"
 black and white [1:11,000]

LEGEND

- | | |
|-------------------------------|--------------|
| 1. Maple-beech-birch-magnolia | 4. Oak-grass |
| 2. Pine- <i>Andropogon</i> | 5. Corn |
| 3. Pine-oak | |

RADFORD, ALBERT E.

1948 "The vascular flora of the olivine deposits of North Carolina and Georgia." *Jour. Elisha Mitchell Sci. Soc.*, vol. 64, p. 49, figs. 9, 10.

[1950] "FORESTS"
 black and white [1:5,100,000]

LEGEND

- | | |
|------------------|-------------|
| 1. Longleaf pine | 3. Hardwood |
| 2. Pine-hardwood | |

ANON.

1950 *In Webster, Laurie D., "Georgia." In Know your state, New York, Garden Club of America, Conservation Committee, p. [53].*

[1952] "GEORGIA FOREST TYPES"
 black and white [1:11,900,000]

LEGEND

- | | |
|-------------------------|----------------------------|
| 1. Upland hardwoods | 3. Shortleaf-loblolly pine |
| 2. Bottomland hardwoods | 4. Longleaf-slash pine |

ANON.

1952 *Georgia forest facts*, 1952 edition. Washington, Amer. Forest Products Industries, Inc., p. 3.

1953 "MAJOR FOREST TYPES—GEORGIA"
 in color [1:1,900,000]

LEGEND

- | | |
|------------------------|--------------------|
| 1. Longleaf-slash pine | 5. Oak-hickory |
| 2. Loblolly pine | 6. Oak-gum-cypress |
| 3. Shortleaf pine | 7. Water |
| 4. Oak-pine | 8. Marsh |

LARSON, ROBERT W.

1956 *The timber supply situation Georgia*. U. S. Dept. Agr., Forest Resource Rept. no. 12, inserted at back.

[1958] "DISTRIBUTION MAP OF THE MAJOR COMMUNITIES OF THE 10,000 ACRE TRACT [NEAR DAWSONVILLE, DAWSON COUNTY]"
 black and white [incalculable]

LEGEND

1. Pine
2. Pine-oak-hickory
3. Disturbed
4. Flood plain

PEDIGO, ROBERT A. *and* ROBERT B. PLATT

1959 "Studies in radiation ecology: II. Plant communities of a 10,000 acre experimental area in north Georgia." *Bull. Georgia Acad. Sci.*, vol. 17, p. 48.

IDAHO

[1928] "GENERAL TIMBER TYPES OF IDAHO"
 black and white [1:4,800,000]

LEGEND

1. Principal species—western white pine
2. Principal species—western yellow pine
3. Principal species—Douglas fir or larch
4. Principal species—lodgepole pine, w. fir etc.
5. Agricultural-grazing, protection forest

CHRIST, J. H.

1928 *The cut-over lands of northern Idaho.* Univ. Idaho, Agr. Exp. Sta., Sandpoint Substation, Bull. no. 158, p. 2.

[1930] "MAP SHOWING NATURAL VEGETATION IN SNAKE RIVER BASIN"
 in color 1:2,500,000

LEGEND

1. Sagebrush
2. Grassland utilized principally for grazing
3. Woodland (juniper, mountain mahogany)
4. Forests
5. Grassland utilized principally for grain crops

KERR, GERALD M. and J. Q. PETERSON

1935 *In Hoyt, W. G., Water utilization in the Snake River Basin.* U. S. Geol. Surv., Water-Supply Paper no. 657, in pocket.

1939 "[FOREST ZONES OF IDAHO NORTH OF THE SALMON RIVER]"
 in color [1:1,400,000]

LEGEND

- | | |
|-------------------------------------|--|
| 1. Zone of white pine | 4. Subalpine, barren and rocky noncommercial areas |
| 2. Zone of ponderosa pine | |
| 3. Zone of other commercial species | 5. Agricultural and grass land |

UNITED STATES. *Forest Service*

1942 *In Hutchinson, S. Blair, and R. K. Winters, Northern Idaho forest resources and industries.* U. S. Dept. Agr., Misc. Publ. no. 508, inserted at back.

[1940] "DISTRIBUTION OF THE WESTERN WHITE PINE TYPE IN A TYPICAL DRAINAGE IN NORTHERN IDAHO"
 black and white [1:32,300]

LEGEND

1. Western white pine type 2. Other forest types

HAIG, IRVINE, KENNETH P. DAVIS and ROBERT H. WEIDMAN

1941 *Natural regeneration in the western white pine type.* U. S. Dept. Agr., Tech. Bull. no. 767, p. 5.

[1943] "NATURAL VEGETATION OF IDAHO"

black and white

[1:460,000]

LEGEND

- | | |
|----------------------------|------------------|
| 1. Spruce-fir | 5. Pinon-juniper |
| 2. Lodgepole pine | 6. Bunch grass |
| 3. Larch-pine | 7. Sagebrush |
| 4. Yellow pine-Douglas fir | 8. Alpine tundra |

MYERS, R. MAURICE

1943 "The vegetation of Idaho." *Dennison Univ. Bull., Journ. Sci. Lab.*, vol. 38, no. 1, p. 34.

[1952] "MAP OF AREA NEAR MOSCOW MT. SHOWING PRINCIPAL ROADS AND FOREST TYPES"

black and white

[1:704,000]

LEGEND

1. *Picea engelmanni* with or without other species
2. *Pinus monticola*, *Larix occidentalis*, *Thuja plicata*, *Abies grandis*, *Pseudotsuga taxifolia*
3. *Pinus ponderosa* with or without *Pseudotsuga* or *Pinus contorta* with or without these other two
4. Grassland
5. Riparian

PARKER, JOHNSON

1952 "Environment and forest distribution of the Palouse Range in northern Idaho." *Ecology*, vol. 33, p. 452.

1958 "MAJOR FOREST TYPES, IDAHO"

in color

[1:2,500,000]

LEGEND

- | | |
|-------------------|--------------------------|
| 1. Douglas fir | 6. Spruce-fir |
| 2. Ponderosa pine | 7. Hardwoods |
| 3. White pine | 8. Pinyon-juniper |
| 4. Larch | 9. Non-commercial forest |
| 5. Lodgepole pine | 10. Non forest |

UNITED STATES. *Forest Service*

1962 *In* Wilson, Alvin K., *Timber resources of Idaho.* Inter-mountain Forest and Range Exp. Sta., Forest Survey Release no. 3, inserted at back.

ILLINOIS

- [1800] "INTERSPERSION OF ORIGINAL PRAIRIE AND TIMBER IN ILLINOIS"
black and white [1:3,600,000]

LEGEND

1. [Prairie] 2. [Timber]

SHELFORD, VICTOR E.

1931 In Leopold, Aldo, *Report on a game survey of the North Central States*. Madison, Wisconsin, Sporting Arms and Ammunition Manufacturers' Institute, Committee on Restoration and Protection of Game, p. 19.

- [1800] "AREAS ORIGINALLY FORESTED"
black and white [1:3,500,000]

LEGEND

1. [Forested] 2. [Unforested, chiefly prairie]

TELFORD, CLARENCE J.

1926 "Third report on a forest survey of Illinois." *Bull. Illinois Nat. Hist. Surv.*, vol. 16, p. [v]. Reprinted, 1941 [1:5,800,000], in Kendeigh, S. Charles, "Distribution of upland birds of Illinois." *Trans. Illinois State Acad. Sci.*, vol. 34, p. 226.

- [ca. 1830] "[ORIGINAL VEGETATION OF ILLINOIS]"
black and white [1:5,600,000]

LEGEND

1. Prairie 2. Woodland

DURAND, LOYAL, JR.

1940 "Dairy region of southeastern Wisconsin and northeastern Illinois." *Economic Geography*, vol. 16, p. 420.

- 1837-1841 "PRE-SETTLEMENT FOREST AND PRAIRIE COVER IN KANE COUNTY,
ILLINOIS"
black and white [1:470,000]

LEGEND

1. Original forest 3. Forest additions
2. Original prairie 4. Prairie additions

KILBURN, PAUL D.

1959 "The forest-prairie ecotone in northeastern Illinois." *American Midland Naturalist*, vol. 62, p. 208.

- 1847 "FOREST AND FOREST SOILS IN TWO STORY COUNTY TOWNSHIPS"
black and white incalculable
- LEGEND
1. Forest 2. [Prairie]
- McCOMB, A. L. and W. E. LOOMIS
1944 "Subclimax prairie." *Bull. Torrey Bot. Club*, vol. 71, p. 57.
- 1856 "PRAIRIE AND TIMBER AREAS OF McDONOUGH COUNTY AS SHOWN BY
1856 SURVEY RECORDS"
black and white [1:340,000]
- LEGEND
1. Prairie 3. Wet prairie
2. Timber
- MYERS, R. MAURICE and PAUL G. WRIGHT
1948 "Initial report on the vegetation of McDonough County, Illinois." *Illinois Acad. Sci. Trans.*, vol. 41, p. 44.
- [ca. 1860] "DISTRIBUTION OF SOILS EXHIBITING THE GENETIC EFFECTS OF NATIVE
FOREST AND NATIVE PRAIRIE VEGETATION IN NORTHEASTERN ILLINOIS"
black and white [1:1,500,000]
- LEGEND
1. Prairie 3. Mixed forest and prairie
2. Forest
- WASCHLER, HERMAN L. and others
1960 *Characteristics of soils associated with glacial tills in northeastern Illinois*. Univ. Illinois, Agr. Exp. Sta., Bull. no. 665, p. 70. (The same information is repeated, in more detail, by subscript letters attached to soil type designations on a large map of "Parent material and surface color of soils in northeastern Illinois," [1:405,000], contained in a pocket on the back cover. Although this latter map is in color, the colors bear no relation to the vegetation categories.)
- 1868 "VEGETATION OF FULTON COUNTY IN THE MID-1800'S AS SHOWN IN THE
FULTON COUNTY SURVEY RECORDS, 1868"
black and white [1:753,000]
- LEGEND
1. Forest 3. Swamp
2. Prairie 4. Lake
- ANDERSON, ELSIE P.
1951 "The mammals of Fulton County, Illinois." *Bull. Chicago Acad. Sci.*, vol. 9, p. 159.
- [1909] "MAP OF AREA SURVEYED, FROM GLENCOE WEST TO SHERMERVILLE [COOK
COUNTY]"
black and white [1:16,000]

LEGEND

- | | |
|----------------------------------|----------------|
| 1. Large trees and virgin forest | 3. Swamp |
| 2. Shrubs and small trees | 4. Open fields |

BAKER, FRANK COLLINS

1910 "The ecology of the Skokie Marsh area, with special reference to the Mollusca." *Bull. Illinois State Lab. Nat. Hist.*, vol. 8, facing p. 444.

- [1909] "DIAGRAM SHOWING RELATION OF CHARACTERISTIC VEGETATION OF STATION VII [NEAR EAST BRANCH OF CHICAGO RIVER, COOK COUNTY]"
black and white [1:1,800]

LEGEND

- | | |
|--------------------------------|--|
| 1. <i>Typha latifolia</i> | 5. <i>Crataegus</i> , <i>Pyrus</i> and <i>Viburnum</i> |
| 2. <i>Iris versicolor</i> | 6. <i>Quercus</i> , <i>Carya</i> , <i>Ostrya</i> and |
| 3. <i>Sagittaria latifolia</i> | <i>Populus</i> , the oaks predominating |
| 4. <i>Salix longifolia</i> | |

BAKER, FRANK COLLINS

1910 "The ecology of the Skokie Marsh area, with special reference to the Mollusca." *Bull. Illinois State Lab. Nat. Hist.*, vol. 8, p. 457.

- [1909] "DIAGRAM SHOWING RELATION OF CHARACTERISTIC VEGETATION OF STATION XVI [NEAR EAST BRANCH OF CHICAGO RIVER, COOK COUNTY]"
black and white [1:500]

LEGEND

- | | |
|-------------------------------------|--|
| 1. <i>Cephalanthus occidentalis</i> | 6. <i>Quercus coccinea</i> |
| 2. <i>Typha latifolia</i> | 7. <i>Quercus bicolor</i> |
| 3. <i>Iris versicolor</i> | 8. <i>Salix longifolia</i> |
| 4. <i>Dulichium spathaceum</i> | 9. <i>Populus tremuloides</i> , <i>Corylus</i> , |
| 5. <i>Sagittaria latifolia</i> | <i>Hamamelis</i> , <i>Viburnum</i> , etc. |

BAKER, FRANK COLLINS

1910 "The ecology of the Skokie Marsh area, with special reference to the Mollusca." *Bull. Illinois State Lab. Nat. Hist.*, vol. 8, p. 465.

- [1909] "DIAGRAM SHOWING RELATION OF CHARACTERISTIC VEGETATION OF STATION XIV [NEAR EAST BRANCH OF CHICAGO RIVER, COOK COUNTY]"
black and white [1:170]

LEGEND

- | | |
|-------------------------------------|-------------------|
| 1. <i>Cephalanthus occidentalis</i> | 5. <i>Carya</i> |
| 2. <i>Typha latifolia</i> | 6. <i>Populus</i> |
| 3. <i>Iris versicolor</i> | 7. <i>Ulmus</i> |
| 4. <i>Quercus</i> | |

BAKER, FRANK COLLINS

1910 "The ecology of the Skokie Marsh area, with special reference to the Mollusca." *Bull. Illinois State Lab. Nat. Hist.*, vol. 8, p. 463.

- [1910] "SKETCH MAP OF N.W. ILLINOIS"
black and white [1:430,000]

LEGEND

- | | |
|----------------------------------|-------------------------------|
| 1. Margin of prairie | 6. Walnut-red elm association |
| 2. E. border of sand prairie | 7. Black oak association |
| 3. Scarlet-white oak association | 8. Elm-willow association |
| 4. Aspen-poplar association | 9. Pine-cedar association |
| 5. Bur oak association | |

PEPOON, H. S.

1911 "The Forest Associations of Northwestern Illinois." *Trans. Illinois Acad. Sci.*, vol. 3 (1910), p. 144.

- 1913 "MAP OF THE COUNTY LINE STATION [COOK AND DU PAGE COUNTIES]"
black and white [1:1,300]

LEGEND

- | | |
|---|---------------------------|
| 1. Unbroken prairie (cut over
for hay) | 6. <i>Glyceria</i> meadow |
| 2. <i>Silphium-Allium</i> prairie | 7. <i>Polygonum</i> |
| 3. Prairie | 8. Slough |
| 4. Disturbed prairie | 9. Forest border |
| 5. <i>Agrostis</i> meadow | 10. Forest |
| | 11. Clover |

VESTAL, ARTHUR G.

1914 "A black-soil prairie station in northeastern Illinois." *Bull. Torrey Bot. Club*, vol. 41, p. 353.

- [1918] "[A SAMPLE AREA IN THE BROKEN COUNTRY A QUARTER-MILE WEST OF THE
EMBARRASS RIVER, ALONG THE BIG FOUR RAILROAD, COLES(?) COUNTY]"
black and white [1:1,800]

LEGEND

- | | |
|-----------------------------|--|
| 1. Prairie | 5. Pastured flood-plain (open
forest) |
| 2. Forest herbs and prairie | 6. Cultivated upland |
| 3. Ruderals and prairie | |
| 4. Forest | |

VESTAL, ARTHUR G.

1918 "Invasion of forest land by prairie along railroads." *Trans. Illinois State Acad. Sci.*, vol. 11, p. 127.

- [1918] "MAP OF A RAVINE AREA WITH PRAIRIE INCLUSIONS, NEAR CHARLESTON,
ILLINOIS"
black and white [1:1,700]

LEGEND

- | | |
|------------|-----------------|
| 1. Prairie | 3. Young forest |
| 2. Forest | |

VESTAL, ARTHUR G.

1918 "Local inclusions of prairie within forest." *Trans. Illinois State Acad. Sci.*, vol. 11, p. 124.

- [1919] "GEOGRAPHICAL SUBDIVISIONS OF CUMBERLAND COUNTY"
 black and white [1:370,000]

LEGEND

1. Upland prairie of the western border of the county
2. Inter-stream upland prairies
3. Forest area of the western creeks
4. Forest area of the Embarrass and the eastern creeks
5. Morainal outwash plains of the northern border

VESTAL, ARTHUR G.

1920 "Preliminary account of the forests in Cumberland County, Illinois." *Trans. Illinois Acad. Sci.*, vol. 12 (1919), p. 239.

- [1919] "[FORESTS OF LA SALLE COUNTY, ILLINOIS:] MAP 1. MENDOTA TOWNSHIP; MAP 2. WALTHAM TOWNSHIP, TROY GROVE TOWNSHIP, DIMMICK TOWNSHIP; MAP 3. WALLACE TOWNSHIP, EARL TOWNSHIP, FREEDOM TOWNSHIP; MAP 4. ADAMS TOWNSHIP, SERENA TOWNSHIP, DAYTON TOWNSHIP; MAP 5. LA SALLE TOWNSHIP, PERU TOWNSHIP, VERMILLION TOWNSHIP, IN PART"
 black and white [1:63,000]

LEGEND

- | | |
|---|-----------------------------|
| 1. Dry oak forest | 3. Rich bottom forest |
| 2. Upland oak forest [grazed and ungrazed differentiated] | 4. Streamside forest |
| | 5. Stump land, recently cut |

Also indicates "limits of forested areas" and "limits of timber soil areas"

FULLER, GEORGE D. and P. D. STRAUSBAUGH

1919 "On the forests of La Salle county, Illinois." *Trans. Illinois Acad. Sci.*, vol. 12, facing p. 254 (legend), facing p. 256 (map 1), facing p. 258 (map 2), facing p. 260 (map 3), facing p. 262 (map 4), facing p. 266 (map 5).

- [1919] "FOREST TYPES, EMBARASS RIVER VALLEY"
 black and white [1:61,300]

LEGEND

- A. Xerophytic forest
 1. Undifferentiated xerophytic oak
 2. Undifferentiated white oak-hickory, bur, *Q. ellipsoidalis*
- B. Mesoxerophytic forest
 3. Xerarch-mesophytic forest
 4. Hydrarch-mesophytic forest
- C. Hydrophytic forest
 5. Undifferentiated elm-sycamore-maple, *Populus-Salix*
 6. *Pop.-Salix* slough, pin oak flat forests of undrained depressions
 7. Unpastured with young growth
 8. Stumps
 9. [Areas formerly or still covered with prairie vegetation]

VESTAL, ARTHUR G.

1920 "Preliminary account of the forests in Cumberland County, Illinois." *Trans. Illinois Acad. Sci.*, vol. 12 (1919), p. 234.

- [1921] "WOODLAND OF NORTHERN ALEXANDER COUNTY, ILL."
black and white [1:63,400]

LEGEND

- | | |
|------------------------|-------------------------|
| 1. Upland forest | 3. Cypress swamp forest |
| 2. River bottom forest | |

MILLER, R. B. and GEORGE D. FULLER

1922 "Forest conditions in Alexander County, Illinois." *Trans. Illinois State Acad. Sci.*, vol. 14 (1921), preceding p. 11.

- [1923] "MAP OF TIMBERED AREAS EXTENDING FROM THEBES TO CHESTER, ILLINOIS"
in color 1:125,000

LEGEND

- A. Upland types
1. [Hardwood forests, divided into six classes on basis of age or merchantable timber volume]
 2. Short leaf pine
- B. Bottomland types
3. [Hardwood forests, divided into six classes on basis of age or merchantable timber volume]
 4. [Cypress forests, divided into two classes on basis of merchantable timber volume]

MILLER, ROBERT B.

1923 "First report on a forestry survey of Illinois." *Bull. Illinois State Nat. Hist. Surv.*, vol. 14, art. 8, inserted at back.

- [1926] "MAP OF ILLINOIS SHOWING GENERAL LOCATION OF FOREST TYPES"
black and white [1:3,600,000]

LEGEND

- | | |
|--------------------|-------------------------------|
| 1. Upland hardwood | 3. Post oak |
| 2. Scrub oak | 4. Cypress and mixed hardwood |

TELFORD, CLARENCE J.

1926 *Third report on a forest survey of Illinois.* Bull. Div. Nat. Hist. Surv., State of Illinois, Dept. Registration and Educ., vol. 16, art. no. 1, p. vi.

- [1926] "FOREST MAP OF EXTREME SOUTHERN ILLINOIS"
black and white 1:250,000

LEGEND

- | | |
|--------------------------|---------------------------|
| 1. Upland forest | 2. Bottomland forest |
| a. Heavily wooded bluffs | a. Mississippi bottomland |
| b. Ozark uplands | b. Cache bottomland |

ILLINOIS

c. Big Muddy bottomland

d. Bottomlands at junction of
Wabash and Ohio rivers

TELFORD, CLARENCE J.

1926 *Third report on a forest survey of Illinois.* Bull. Div. Nat. Hist. Surv., State of Illinois, Dept. Registration and Educ., vol. 16, art. no. 1, map no. 3, in pocket.

- [1926] "FOREST MAP OF SOUTH-CENTRAL ILLINOIS. EAST HALF. UPLAND FOREST IN SMALL WOOD-LOTS"
black and white 1:250,000

LEGEND

- | | |
|------------------|----------------------|
| 1. Upland forest | 2. Bottomland forest |
|------------------|----------------------|

TELFORD, CLARENCE J.

1926 *Third report on a forest survey of Illinois.* Bull. Div. Nat. Hist. Surv., State of Illinois, Dept. Registration and Educ., vol. 16, art. no. 1, map no. 4, in pocket.

- [1926] "FOREST MAP OF SOUTH-CENTRAL ILLINOIS. WEST HALF"
black and white 1:250,000

LEGEND

- | | |
|---|--|
| 1. Upland forest | a. Mississippi bottomland |
| a. Heavily wooded uplands at
mouth of Illinois | b. Illinois bottomlands |
| 2. Bottomland forest | c. Bottomlands of Kaskaskia
system. |

TELFORD, CLARENCE J.

1926 *Third report on a forest survey of Illinois.* Bull. Div. Nat. Hist. Surv., State of Illinois, Dept. Registration and Educ., vol. 16, art. no. 1, map no. 5, in pocket.

- [1926] "FOREST MAP OF NORTHWESTERN ILLINOIS"
black and white 1:250,000

LEGEND

- | | |
|--|---------------------------|
| 1. Upland forest | 2. Bottomland forest |
| a. Eroded uplands | a. Mississippi bottomland |
| b. Forested region along Rock
River | 3. Prairie |

TELFORD, CLARENCE J.

1926 *Third report on a forest survey of Illinois.* Bull. Div. Nat. Hist. Surv., State of Illinois, Dept. Registration and Educ., vol. 16, art. no. 1, map 6, in pocket.

- [1926] "MAP OF CONTINUOUS DEPRESSIONS WITH BOGS, NEAR VOLVO, ILLINOIS
[INCLUDING PORTIONS OF LAKE AND McHENRY COUNTIES]
black and white incalculable

LEGEND

- | | |
|---|---|
| 1. Tamarack forests | 3. Remnants of original oak-hickory forests |
| 2. Tamarack forests which have been cut | 4. Upland cleared and farmed |

WATERMAN, W. G.

1926 "Ecological problems from the Sphagnum bogs of Illinois." *Ecology*, vol. 7, p. 262.

1930 "PRELIMINARY VEGETATION MAP OF ILLINOIS"

black and white

[1:2,100,000]

LEGEND

- | | |
|--|-----------------------|
| 1. Prairie | 5. Ozark Hills |
| 2. Forests of the grand prairie division | 6. Tertiary division |
| 3. [Forests] of the western division | 7. Jo Daviess Hills |
| 4. Southern division | 8. Mississippi border |
| | 9. Wabash border |

VESTAL, ARTHUR G.

1931 "A preliminary vegetation map of Illinois." *Trans. Illinois State Acad. Sci.*, vol. 23, facing p. 206. Reprinted, 1943 [1:3,300,000], in Brown, Louis G., and Lee E. Yeager, "Survey of the Illinois fur resource." *Bull. Illinois Nat. Hist. Surv.*, vol. 22, p. 442.

[1931] "[VEGETATION OF SOUTHEASTERN CHAMPAIGN COUNTY AND SOUTHERN VERMILLION COUNTY, ILLINOIS]"

black and white

[1:423,000]

LEGEND

- | | |
|--------------------------|-----------|
| 1. Sub-climax grass land | 2. Forest |
|--------------------------|-----------|
- Also indicates range limit of *Fagus grandifolia*

SHELFORD, VICTOR E.

1931 "Some concepts of bioecology." *Ecology*, vol. 12, p. 460.

1938 "MUSCOOTEN BAY, NEAR BEARDSTOWN, ILLINOIS"

black and white

[1:12,000?]

LEGEND

- | | |
|--------------------------------|----------------------------------|
| 1. <i>Scirpus fluviatilis</i> | 5. <i>Polygonum muhlenbergii</i> |
| 2. <i>Nelumbo lutea</i> | 6. <i>Potamogeton americanus</i> |
| 3. <i>Sagittaria latifolia</i> | 7. <i>Potamogeton pectinatus</i> |
| 4. <i>Salix</i> spp. | |

BELLROSE, FRANK C., JR.

1941 *Duck food plants of the Illinois River Valley*. State of Illinois, Div. of Nat. Hist. Surv., Bull., vol. 21, art. no. 8, p. 242.

1938, 1939 "CHAUTAUQUA LAKE, NEAR HAVANA, ILLINOIS"

black and white

[1:12,000]

LEGEND

- | | |
|----------------------------------|--|
| 1. <i>Scirpus fluviatilis</i> | 6. <i>Polygonum muhlenbergii</i> |
| 2. <i>Nelumbo lutea</i> | 7. <i>Potamogeton americanus</i> |
| 3. <i>Sagittaria latifolia</i> | 8. <i>Potamogeton pectinatus</i> |
| 4. <i>Salix</i> spp. | 9. <i>Najas guadalupensis</i> and
<i>Heteranthera dubia</i> |
| 5. <i>Ceratophyllum demersum</i> | |

BELLROSE, FRANK C., JR.

1941 *Duck food plants of the Illinois River Valley*. State of Illinois, Div. of Nat. Hist. Surv., Bull., vol. 21, art. no. 8, pp. 252-253.

1939 "GOOSE LAKE, NEAR DUCK ISLAND"

black and white

[1:12,000?]

LEGEND

- | | |
|--------------------------------|----------------------------------|
| 1. <i>Scirpus fluviatilis</i> | 6. <i>Ceratophyllum demersum</i> |
| 2. <i>Nelumbo lutea</i> | 7. <i>Polygonum muhlenbergii</i> |
| 3. <i>Sagittaria latifolia</i> | 8. <i>Potamogeton americanus</i> |
| 4. <i>Castalia tuberosa</i> | 9. <i>Potamogeton pectinus</i> |
| 5. <i>Salix</i> spp. | |

BELLROSE, FRANK C., JR.

1941 *Duck food plants of the Illinois River Valley*. State of Illinois, Div. of Nat. Hist. Surv., Bull., vol. 21, art. no. 8, p. 254.

1940 "CLEAR LAKE NEAR LIVERPOOL, ILLINOIS"

black and white

[1:12,000]

LEGEND

- | | |
|-----------------------------------|--------------------------------|
| 1. <i>Echinochloa frumentacea</i> | 7. <i>Sagittaria latifolia</i> |
| 2. <i>Polygonum lapathifolium</i> | 8. <i>Acnida tuberculata</i> |
| 3. <i>Echinochloa walteri</i> | 9. <i>Cyperus</i> spp. |
| 4. <i>Eleocharis palustris</i> | 10. <i>Zizania aquatica</i> |
| 5. <i>Leersia oryzoides</i> | 11. <i>Salix</i> spp. |
| 6. <i>Scirpus fluviatilis</i> | |

BELLROSE, FRANK C., JR.

1941 *Duck food plants of the Illinois River Valley*. State of Illinois, Div. of Nat. Hist. Surv., Bull., vol. 21, art. no. 8, p. 255.

1942 "MAP OF LAKE CHAUTAUQUA NATIONAL WILDLIFE REFUGE AND VICINITY, HAVANA, ILLINOIS"

black and white

[1:62,100]

LEGEND

- | | |
|------------------|---------------|
| 1. Timbered area | 3. Marsh area |
| 2. Hedgerow | 4. Levee |

YEAGER, LEE E. and HARRY G. ANDERSON

1944 "Some effects of flooding and waterfowl concentrations on mammals of a refuge area in central Illinois." *American Midland Naturalist*, vol. 31, p. 161.

[1953] "GIANT CITY STATE PARK, ILLINOIS"

black and white

1:25,000

LEGEND

1. Dry woods *Quercus rubra*-*Q. velutina*-*Carya* spp.
2. Moist woods *Acer saccharum*-*A. nigrum*-*Ulmus americana*, with *Nyssa sylvatica* on slightly elevated areas
3. Dry bluff [*Quercus stellata*-*Q. marilandica*]-*Juniperus virginiana*-*Ulmus alata*]
4. Moist meadow
5. Old field

MOHLENBROCK, ROBERT H.

[1954] *Flowering plants and ferns of Giant City State Park*. Div. Parks and Memorials, Dept. Conserv., and Illinois State Mus., Dept. Registration and Educ., The meaning of scenery in Illinois State Parks, no. 2, p. 24.

[1955] "VEGETATION OF WINNEBAGO COUNTY"

black and white

[1:404,000]

LEGEND

- | | |
|---------------------------------|------------------------|
| 1. Formerly in prairie | 3. In woods at present |
| 2. Formerly more or less wooded | |

FELL, EGBERT W.

1955 *Flora of Winnebago County, Illinois, an annotated list of the vascular plants*. Washington, Nature Conservancy in cooperation with Rockford Natural History Museum and Nature Study Soc. of Rockford, in pocket.

[1956] "COOK COUNTY, ILLINOIS, RIVERSIDE PRAIRIE"

black and white

[incalculable]

LEGEND

- | | |
|--------------------------------------|----------------------------------|
| 1. Oak woods 1905 | a. 1905 |
| 2. Prairies 1905, shrub covered 1956 | b. 1956 |
| 3. Prairie edge 1905 | 6. <i>Crataegus</i> thicket 1956 |
| 4. Prairie 1956 | 7. Sparsely invaded prairie 1956 |
| 5. Forest edge | |

Distribution of dogwood trees and young specimens of *Crataegus* is indicated by symbols. Other markings show "where the natural vegetation of both forest and prairie has been destroyed or greatly modified . . ."

SHELFORD, VICTOR E. and G. S. WINTERRINGER

1959 "The disappearance of an area of prairie in the Cook County, Illinois, Forest Preserve District." *American Midland Naturalist*, vol. 61, p. 93.

[1957] "NORTHERN WINNEBAGO CO. SAND DEPOSIT"

black and white

[1:121,000]

LEGEND

- | | |
|---------------------|--------------------------|
| 1. High prairie | 4. Hills with mixed oaks |
| 2. Low prairie | 5. Shallow bog |
| 3. Black oak forest | |

FELL, EGBERT W.

1957 "Plants of a northern Illinois sand deposit." *American Midland Naturalist*, vol. 58, p. 442.

1962 "VEGETATION MAP OF THE PINE HILLS FIELD STATION"
black and white

1:12,000

LEGEND

- | | |
|----------------------------|--|
| 1. Black oak | 6. Swamp red maple-swamp
cottonwood |
| 2. Sassafras | 7. Buttonbush |
| 3. White oak-hickory | 8. Pond weed-hornwort |
| 4. Red oak-black gum beech | 9. Yard |
| 5. Sweet gum | |

ASHBY, W. C. and R. W. KELTING

1963 "Vegetation of the Pine Hills Field Station in southwestern Illinois." *Transactions of the Illinois State Academy of Science*, Vol. 56, no. 4, p. 191.

INDIANA

[pre-settlement] "[ORIGINAL VEGETATION OF INDIANA]"

black, green and white

[1:4,600,000]

LEGEND

1. Forest

2. Prairie

BRUNDAGE, ROY C.

1955 *Forests of Indiana and their importance*. Purdue Univ., Agr. Extension Serv. Cooperating with Indiana State Dept. Conserv., p. 4.

[1800] "NATIVE VEGETATION REGIONS"

black and white

[1:4,800,000]

LEGEND

1. Prairie and marsh

2. Upland oak forest

3. Forest of oak-hickory, beech-maple, tulip-walnut

4. Forest of beech-sweet gum

5. Mixed forest of oak-hickory and beech-maple

6. Southern swamp forest on lowlands and mixed forest (type 5) on uplands

Based on map by Gordon (1936)

VISHER, STEPHEN SARGENT

1948 "Regionalization of Indiana." *Annals of the Association of American Geographers*, vol. 38, p. 289 (legend in text on p. 290).

1830

"VEGETATION TYPES OF THE NORTHERN THIRD OF INDIANA IN 1830"

black and white

[1:1,700,000]

LEGEND

1. Dry prairie

2. Beech-maple forest

3. Oak-hickory forest

4. Wetlands . . . supporting wet prairie, marsh, (wooded) swamp, and bog vegetation

LINDSEY, ALTON A.

1961 "Vegetation of the drainage-aeration classes of northern Indiana soils in 1830." *Ecology*, vol. 42, p. 434.

[1850]

"DIAGRAMATIC REPRESENTATION OF DISTRIBUTIONAL PATTERNS OF THE ORIGINAL VEGETATION IN EIGHT INDIANA "PRAIRIE" COUNTIES"

black and white

[1:1,100,000]

LEGEND

- | | |
|----------------|-----------------|
| 1. Dry prairie | 3. Oak openings |
| 2. Wet prairie | 4. Forest |

Also indicates distribution of isolated specimens of *Acer saccharum* and *Fagus grandifolia*

FINLEY, DEAN and JOHN E. POTZGER

1952 "Characteristics of the original vegetation in some prairie counties of Indiana." *Butler Univ. Bot. Stud.*, vol. 10, p. 115.

- [1850] "GRAPHIC PRESENTATION OF THE FOUR MAJOR VEGETATION TYPES IN LAKE, NEWTON AND JASPER COUNTIES, INDIANA"
 black and white ([1:673,000])

LEGEND

- | | |
|----------------|-----------------|
| 1. Dry prairie | 3. Oak openings |
| 2. Wet prairie | 4. Forest |

Also indicates distribution of isolated specimens of *Acer saccharum* and *Fagus grandifolia*

ROHR, FRED W. and JOHN E. POTZGER

1951 "Forest and prairie in three northwestern Indiana counties." *Butler Univ. Bot. Stud.*, vol. 10, p. 62.

- 1901 "INDIANA UNIVERSITY BIOLOGICAL STATION HYDROGRAPHIC MAP OF EAGLE LAKE OR WINONA LAKE, KOSCIUSKO CO., INDIANA"
 black and white ([1:12,000])

LEGEND

- | | |
|-------------|----------|
| 1. Lilypads | 2. Marsh |
|-------------|----------|

NORRIS, ALLEN A.

1902 "Reports from the biological station. I. Maps of Winona, Pike and Center Lakes." *Proc. Indiana Acad. Sci.* for 1901, facing p. 118.

- [1905] "MAP OF LEESBURG SWAMP [KOSCIUSKO COUNTY]"
 black and white ([1:4000])

LEGEND

- | | |
|-------------------|---------------|
| A. Swamp | 6. Larch |
| 1. <i>Iris</i> | 7. Rose |
| 2. <i>Rhus</i> | B. [Upland] |
| 3. Sedges | 8. Oak forest |
| 4. Willow | 9. Open field |
| 5. Willow & maple | |

SCOTT, WILL

1906 "The Leesburg swamp." *Proc. Indiana Acad. Sci.* for 1905, p. 209.

- [1915] "MAP OF CEDAR SWAMP [CHAMPAIGN COUNTY], SHOWING RELATION OF THE PLANT ASSOCIATIONS"
black and white [not calculated]

LEGEND

- | | |
|----------------------------|-----------------------------|
| 1. Sedge-grass association | 3. Tulip-poplar association |
| 2. Arbor vitae association | 4. Dry bog |

"The birch-alder association is not shown."

MARKLE, M. S.

1916 "The phytocology of peat bogs near Richmond, Indiana." *Proc. Indiana Acad. Sci.* for 1915, p. 360.

- [1928] "BACON'S SWAMP, MARION COUNTY, INDIANA"
black and white [1:3000]

LEGEND

- | | |
|---------------------|-------------------|
| 1. Upland forest | 6. Wet meadow |
| 2. Swamp forest | 7. Pond |
| 3. Black willow | 8. <i>Decodon</i> |
| 4. Buttonbush | 9. Cat-tail |
| 5. <i>Polygonum</i> | |

CAIN, STANLEY A.

1928 "Plant succession and ecological history of a central Indiana swamp." *Botanical Gazette*, vol. 86, p. 387.

- [1929] "MAP OF BENTON COUNTY, INDIANA, SHOWING LOCATION OF THE EIGHT 'ISLAND-LIKE' GROVES IN THE 'OCEAN-LIKE PRAIRIE'"
black and white [1:370,000]

LEGEND

- | | |
|-------------|-----------------|
| 1. [Groves] | 2. [Unforested] |
|-------------|-----------------|

WELCH, WINONA

1930 "Forest and prairie, Benton County, Indiana." *Proc. Indiana Acad. Sci.*, vol. 39, p. 71.

- [1936] "MAJOR VEGETATION AREAS OF INDIANA, U. S. A."
black and white 1:1,500,000

LEGEND

1. Prairie grassland
2. Upland oak forest
3. Phases of the northern swamp forest
4. Beech forest
5. Mixed forest area
6. Beech-sweet gum forest of "The Flats"
7. Phases of the southern swamp forest
8. Bald cypress forest of the lower Wabash Valley

GORDON, ROBERT B.

1936 "A preliminary vegetation map of Indiana." *American Mid-land Naturalist*, vol. 17, facing p. 876.

[1944] "NATIVE VEGETATION [INDIANA]"
 black and white [1:2,700,000]

LEGEND

1. Black oak, pin oak, marsh grasses
2. Bluejoint grass, slough grass, swamp milkweed, rushes, cat-tails, maple, ash, elm, birch
3. Big bluestem, Indian grass, golden-rod, sunflowers, little bluestem, burr oak, hickory
4. Oak-hickory, beech-maple, ash-elm, tulip, walnut
5. Sycamore, willow, red maple, swamp white oak, ash, cotton-wood, river birch, walnut, beech, elm
6. Pin oak-sweet gum, beech-maple, oak-hickory
7. Chestnut, scarlet, black, white, and red oaks; maple, beech, hickory, tulip, walnut, scrub pine

Legend also shows 16 principal soil types of the region by letter overprint

BUSHNELL, T. M.

1944 *The story of Indiana soils*. Lafayette, Indiana, Purdue Univ. Agr. Exp. Sta., Special Circular no. 1 (June, 1944), p. 30. Reprinted, 1958 in his *A story of Hoosier soils, and rambles in pedological fields*. West Lafayette, Indiana, Peda-Products, p. 34.

[1958] "NATIVE VEGETATION [OF INDIANA]"
 black and white [1:6,000,000]

LEGEND

- | | |
|-----------------------|-----------------------|
| 1. Beech-maple forest | 3. Oak-hickory forest |
| 2. Prairie | |

After Potzger, Potzger, and McCormick (1956)

OVERMIRE, THOMAS G.

1958 "Another approach to ecology." *American Biology Teacher*, vol. 20, p. 83.

[1959] "BUZZARD ISLAND [ALLEE MEMORIAL WOODS]"
 black and white [1:1,400]

LEGEND

- | | |
|-----------------------|------------------------------|
| 1. Annual community | 3. Perennial forb-sapling |
| 2. <i>Salix nigra</i> | 4. <i>Salix-Populus-Acer</i> |

ANON.

[1961] In Petty, Robert, and Eliot C. Williams, Jr., *Ecologic studies of a ridge forest and adjacent flood plain, Parke County, Indiana*. Final Report, Atomic Energy Commission Contract No. AT(11-1)-547. Crawfordsville, Indiana, Biological Laboratories, Wabash College, p. 66.

[1961] "ALLEE MEMORIAL WOODS, VEGETATION MAP"
 black and white [1:3,000]

LEGEND

1. Beech maple
2. Maple beech oak
3. Oak maple
4. Upland oak
5. Old field—red maple, tulip
6. poplar, Am. ash, *Solidago-Rubus*
7. Selective cut—oak, maple, sassafras, *Prunus*
7. Hemlock

ANON.

[1961] In Petty, Robert, and Eliot C. Williams, Jr., *Ecologic studies of a ridge forest and adjacent flood plain, Parke County, Indiana*. Final Report, Atomic Energy Commission Contract No. AT(11-1)-547. Crawfordsville, Indiana, Biological Laboratories, Wabash College, p. 33.

IOWA

1847,1902 "FEATURES OF EARLY SETTLEMENT, STORY COUNTY, IOWA"

black and white

[1:324,000]

LEGEND

1. Woodland as mapped in 1845-7

2. Wooded in 1902

HEWES, LESLIE

1950 "Some features of early woodland and prairie settlement in a central Iowa county." *Annals of Association of American Geographers*, vol. 40, p. 42.

[1850] "[PRESETTLEMENT DISTRIBUTION OF FORESTS IN IOWA]"

black and white

[1:2,400,000]

LEGEND

1. Forest

2. Unforested

SHIMEK, BOHUMIL

1900 "The distribution of forest trees in Iowa." *Proc. Iowa Acad. Sci.* for 1899, vol. 7, facing p. 58. Reprinted, 1930 [1:3,200,000], in his "Land snails as indicators of ecological conditions." *Ecology*, vol. 11, p. 674; 1930 [1:4,600,000], in Leopold, Aldo, *Report on a game survey of the North Central States*. Madison, Wisconsin, Sporting Arms and Ammunition Manufacturers' Institute, Committee on Restoration and Protection of Game, p. 18.

1853, [1940] "FORESTED AREAS IN MAPLE (85 N.) AND A PART OF CENTER (84 N.) TOWNSHIPS IN MONONA COUNTY, IOWA"

black and white

[1:100,000]

LEGEND

1. Closed forest of 1853, before settlement

2. Present forest

MCCOMB, A. L. and W. E. LOOMIS

1944 "Subclimax prairie." *Bull. Torrey Bot. Club*, vol. 71, p. 49 (legend on p. 48).

[1859] "ORIGINAL FOREST COVER"

black and white

[1:3,300,000]

LEGEND

1. Forest

IOWA. *State Planning Board. Committee on Forest and Wasteland*

1950 In Hewes, Leslie, "Some features of early woodland and prairie settlement in a central Iowa county." *Annals of the Association of American Geographers*, vol. 40, p. 41.

1889 "PRIMEVAL FORESTS AND SWAMPS OF NORTH-EASTERN IOWA"
in color 1:633,600

LEGEND

- | | |
|-----------------|-----------|
| 1. Woodland | 3. Swamps |
| 2. Prairie-land | |

TORBERT, J. B. and W. J. MCGEE

1891 In McGee, W. J., "The Pleistocene history of northeastern Iowa." *Ann. Rept. U. S. Geol. Surv.*, no. 11 (1889-1890), pt. 1, in pocket.

[1913-1917] "[PRESENT DISTRIBUTION OF TIMBER IN JOHNSON COUNTY, BY TOWNSHIPS—20 MAPS]"
black and white [1:92,200]

LEGEND

- | | |
|------------|--|
| 1. Oak | 7. Cleared land, with stumps |
| 2. Hickory | 8. Solid timber, without underbrush |
| 3. Elm | 9. Solid timber, with abundant undergrowth |
| 4. Hazel | |
| 5. Thicket | |
| 6. Willow | |

BRUMFIEL, DANIEL MILTON

1919 *The animal ecology of Johnson County, a preliminary survey of the major animal habitats of Johnson County, Iowa, with an atlas.* Univ. Iowa, Studies in Nat. Hist., vol. 8, no. 1, pls. 4-23, following p. 37.

[1925] "MAP OF AQUATIC PLANT ASSOCIATIONS OF LITTLE WALL LAKE [HAMILTON COUNTY, IOWA]"
black and white [1:130]

LEGEND

- | | |
|-------------------------------|--------------------------|
| 1. <i>Elodea</i> | 9. <i>Myriophyllum</i> |
| 2. <i>Scirpus validus</i> | 10. <i>Ceratophyllum</i> |
| 3. <i>Lemna</i> | 11. <i>Utricularia</i> |
| 4. <i>Wolffia</i> | 12. <i>Zizania</i> |
| 5. <i>Nymphaea</i> | 13. <i>Ranunculus</i> |
| 6. <i>Castalia</i> | 14. <i>Potamogeton</i> |
| 7. <i>Scirpus fluviatilis</i> | 15. <i>Typha</i> |
| 8. <i>Sagittaria</i> | 16. <i>Brasenia</i> |

CATLIN, LOIS A. and ADA HAYDEN

[1928] "The physiographic ecology of a Wisconsin drift lake." *Proc. Iowa Acad. Sci.* for 1927, vol. 34, p. 178.

[1934] "T. 79N; R. 33W. BEAR GROVE, GUTHRIE COUNTY, IOWA"

black and white

[1:77,300]

LEGEND

- | | |
|--------------------------|---------------------------|
| 1. Timbered areas | 6. Scattered brush areas |
| 2. Woodland pasture | 7. Crop and pasture areas |
| 3. Marsh areas | 8. Planted woodlots |
| 4. Waste grassland areas | 9. Evergreen shelterbelts |
| 5. Heavy brush areas | |

ANON.

1934 In Renner, George T., "A geographical survey for Iowa." *Economic Geography*, vol. 10, p. 298.

1946 "SPIRIT LAKE, IOWA, AQUATIC PLANT ASSOCIATIONS"

black and white

[1:49,700]

LEGEND

1. *Scirpus acutus*, *Potamogeton richardsonii*, *Potamogeton illinoensis*, *Potamogeton pectinatus*, *Myriophyllum spicatum*, *Potamogeton natans*, *Ceratophyllum demersum*, *Potamogeton zosteriformis*, *Typha latifolia*
2. *Scirpus acutus*, *Potamogeton richardsonii*, *Potamogeton illinoensis*, *Potamogeton pectinatus*
3. *Myriophyllum spicatum*, *Potamogeton pectinatus*, *Potamogeton zosteriformis*, *Potamogeton richardsonii*, *Ceratophyllum demersum*, *Potamogeton illinoensis*, *Najas flexilis*, *Scirpus acutus*
4. *Myriophyllum spicatum*, *Potamogeton richardsonii*, *Ceratophyllum demersum*, *Potamogeton illinoensis*, *Potamogeton natans*, *Najas guadalupensis*, *Potamogeton zosteriformis*, *Ranunculus flabellaris*, *Polygonum natans*, *Potamogeton pectinatus*, *Scirpus acutus*, *Najas flexilis*, *Zannichellia palustris*
5. *Scirpus acutus*, *Potamogeton richardsonii*
6. *Potamogeton richardsonii*
7. *Potamogeton pectinatus*
8. *Scirpus acutus*, *Potamogeton richardsonii*, *Potamogeton pectinatus*
9. *Potamogeton richardsonii*, *Potamogeton pectinatus*
10. *Potamogeton richardsonii*, *Potamogeton pectinatus*, *Potamogeton illinoensis*, *Vallisneria spiralis*
11. *Scirpus fluviatilis*, *Potamogeton natans*, *Ceratophyllum demersum*, *Polygonum natans*, *Lemna minor*, *Myriophyllum spicatum*, *Najas flexilis*, *Potamogeton illinoensis*

SIGLER, WILLIAM F.

1948 "Aquatic and shore vegetation of Spirit Lake, Dickinson County, Iowa." *Iowa State Coll. Jour Sci.*, vol. 23, p. 110.

[1959] "PRESENT AREAS OF FAIRLY CONTINUOUS FOREST LAND"

black and white

[1:4,400,000]

LEGEND

1. [Forest]

THORNTON, PHILIP L. and JAMES T. MORGAN

1959 *The forest resources of Iowa*. Central States Forest Exp. Sta., Forest Surv. Release no. 22, p. [1].

KANSAS

- 1800 "MAP OF UNIVERSITY OF KANSAS NATURAL HISTORY RESERVATION"
black and white 1:20,000

LEGEND

1. Slopes and hilltops that are still wooded
2. Bottomlands that were formerly wooded but later cleared for pasture or cultivated crops
3. Slopes and hilltops now wooded seemingly as a result of recent reinvasion, that probably were bluestem prairie earlier
4. Relatively flat hilltops that are still grassland and are thought to have been bluestem prairie

FITCH, HENRY S. and RONALD L. MCGREGOR

1956 "The forest habitat of the University of Kansas Natural History Reservation." *University of Kansas Publications, Museum of Natural History*, vol. 10, p. 91.

- [1860] "[DISTRIBUTION OF WOODLAND, DOUGLAS COUNTY, KANSAS, AND ADJACENT WESTERN EDGE OF LEAVENWORTH COUNTY, KANSAS]"
black and white [1:63,400]

LEGEND

1. [Woodland, approximate distribution before deforestation]

FITCH, HENRY S.

1956 In Fitch, Henry S., and Ronald L. McGregor, "The forest habitat of the University of Kansas Natural History Reservation." *Univ. Kansas Publ., Mus. Nat. Hist.*, vol. 10, p. 84.

- [1930] "NATIVE VEGETATION [KANSAS]"
black and white [1:4,300,000]

LEGEND

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Plains grassland <ol style="list-style-type: none"> a. Wiregrass, buffalo b. Grama, buffalo 2. Prairie grassland <ol style="list-style-type: none"> a. Bluestem bunchgrass | <ol style="list-style-type: none"> b. Bluestem hills, bluestem sodgrass 3. Prairie woodland 4. Ozark scrub oak |
|---|---|

SOUTHWESTERN BELL TELEPHONE COMPANY

1930 In *Economic survey of Kansas*. St. Louis, Missouri, Southwestern Bell Telephone Co., General Commercial Engineering Dept., p. 29.

- [1934] "TYPICAL DISTRIBUTION OF TREES AND SHRUBS BORDERING STREAM COURSES IN THE GRASSLAND FORMATION (KANSAS)"
black and white [1:3,700,000]

LEGEND

1. [Grassland] 2. [Forest and shrub]

AIKMAN, J. M.

1935 "Native vegetation of the region." In *Possibilities of shelter-belt planting in the plains region*. Washington, U. S. Forest Service, issued under special allotment to the Plains Shelterbelt Project, p. 159.

- [1936] "AREAS IN WHICH NATIVE GRASSES ARE FOUND IN KANSAS"
in color [1:4,100,000]

LEGEND

1. Bluegrass and miscellaneous grasses
2. Bluestem region (bluestem grasses)
3. Mixed bluestem and short grasses
4. Dakota sandstone (bluestem grasses)
5. Sand hill (bluestem grasses)
6. Hilly areas (bluestem grasses)
7. Short grasses (buffalo and grama grasses)

GATES, FRANK C.

1937 "Grasses in Kansas." *Rept. Kansas State Board Agr. for Quart. ending December, 1936*, vol. 50, no. 220-A, frontispiece. Reprinted, 1954 [1:5,600,000], black and white, in Black, John D., *Biological conservation with particular emphasis on wildlife*. New York, Blakiston Co., Inc., p. 98.

- [1937] "SELECTED AREA OF 160 ACRES SHOWING THE DISTRIBUTION OF THE 3 TYPES OF VEGETATION IN RELATION TO TOPOGRAPHY [FORT HAYS MILITARY RESERVATION TRACT, ELLIS COUNTY]"
black and white [1:7,000]

LEGEND

1. Short grass habitat 3. Big bluestem habitat
2. Little bluestem habitat

ALBERTSON, F. W.

1937 "Ecology of mixed prairie in west central Kansas." *Ecological Monographs*, vol. 7, p. 489.

- 1938 "BELLEVILLE PRAIRIE"
black and white [1:1,630]

LEGEND

1. *Andropogon furcatus* 3. *Bouteloua gracilis*
2. *Agropyron smithii* 4. *Panicum virgatum*

- | | |
|--------------------------------|--|
| 5. <i>Elymus canadensis</i> | 10. <i>Andropogon-Agrophyron</i> |
| 6. <i>Agropyron-Bouteloua</i> | 11. <i>Agropyron-Andropogon</i> |
| 7. <i>Bouteloua-Agrophyron</i> | 12. <i>Bouteloua-Buchloe dactyloides</i> |
| 8. <i>Andropogon-Bouteloua</i> | 13. <i>Andropogon f. [furcatus]-A. scoparius</i> |
| 9. <i>Bouteloua-Andropogon</i> | |

WEAVER, J. E. and R. W. DARLAND

1944 "Grassland patterns in 1940." *Ecology*, vol. 25, pp. 206-207.

1952-1953 "MAP OF THE PLANT COMMUNITIES OF THE WESTERN HALF OF THE NATURAL HISTORY RESERVATION OF THE UNIVERSITY OF KANSAS"

black, red and white

1:2,400

LEGEND

- I. Herbaceous Communities
 - A. Herbaceous communities on dry sites
 1. Community with *Bromus inermis* dominant
 2. Community with *Poa pratensis* (dominant during the spring) and *Muhlenbergia scherberi* (dominant during the fall)
 3. Community with *Andropogon gerardi* and *Sorghastrum nutans* dominant
 - B. Herbaceous communities on humid sites
 4. Community with *Lespedeza striata* dominant
 5. Community with *Carex* spp. dominant
 - C. Herbaceous communities on sites periodically flooded
 6. Community with *Typha latifolia* dominant
 7. Community with *Scirpus atrovirens* dominant
 - D. Postcultural communities
 8. Community with *Ambrosia trifida* dominant
 9. Community with *Solidago altissima* dominant
 - E. Ruderal communities, along roads, around houses, etc.
 10. Community with *Setaria viridis*, *Cirsium altissimum*, *Polygonum lapathifolium*, *Xanthium italicum*, *Ambrosia artemisiifolia* var. *elatior*, *Ambrosia trifida*, etc.
 11. Community with *Digitaria ischaemum* dominant
 12. Community with *Bromus japonicus* dominant
- II. Forest Communities
 - A. Forest on dry sites
 13. Pioneer community with *Ulmus americana* dominant
Forest communities approaching the climax: various phases of the oak-hickory forest:
 14. Community with *Quercus muhlenbergii* dominant
 15. Community with *Quercus velutina* and *Q. maxima* dominant
 16. Community with *Quercus marilandica* dominant
 - B. Forest on the humid sites near the pond
 17. Dominance of *Salix nigra*

In addition, 27 transitions and 16 facies are listed.

TOMASELLI, RUGGERO

1958 *Plant communities of the western half of the University of Kansas Natural History Reservation*. Pavia (Italy), Casa Editrice Renzo Cortina. map inserted in back.

[1954] "MAP OF THE CHAUTAUQUA HILLS SHOWING LOCATIONS OF UPLAND FORESTS . . ."

black and white

[1:803,000]

LEGEND

1. [Upland forest, principally *Quercus stellata*-*Q. marilandica*]

HALE, MASON E., JR.

1955 "A survey of upland forests in the Chautauqua Hills, Kansas." *Trans. Kansas Acad. Sci.*, vol. 58, p. 166.

KENTUCKY

[1953] "KENTUCKY FOREST TYPES"

black and white

[1:4,600,000]

LEGEND

- | | |
|---------------------------------|----------------|
| 1. Swamp and bottom-land forest | 4. Oak-hickory |
| 2. Shortleaf pine | 5. Not typed |
| 3. Maple-birch-beech | |

ANON.

1953 *Kentucky forest facts*, 1953 edition. Washington, Amer. Forest Products Industries, Inc., p. 3.

LOUISIANA

- 1881 "MAP OF LOUISIANA SHOWING THE DISTRIBUTION OF PINE FORESTS, WITH SPECIAL REFERENCE TO THE LUMBER INDUSTRY"
in color [1:2,800,000]

LEGEND

1. Long leaved pine (*Pinus palustris*)
 - a. Pine hills
 - b. Pine flats
2. Short leaved pine (*Pinus mitis*) mixed with oak and other hardwoods
3. Region from which merchantable pine has been cut

SARGENT, CHARLES SPRAGUE

1884 "Report on the forests of North America (exclusive of Mexico)." U. S. Dept. Interior, Census Office, *Tenth Census of the U. S.*, vol. 9, facing p. 536. Reprinted, 1955 [1:2,900,000], in Phillips, Travis, "Louisiana forests: 1880." *Forests & People* (Louisiana Forestry Assoc.), vol. 5, no. 2, p. 20.

- [1905] "LOUISIANA"
black and white [1:5,000,000]

LEGEND

- | | |
|-------------------------|----------------------------|
| 1. Alluvial | 5. Short-leaf pine regions |
| 2. Red R. alluvial | 6. Bluffs |
| 3. Long-leaf pine flats | 7. Marsh |
| 4. Long-leaf pine hills | 8. Prairie |

BEYER, GEORGE E., ANDREW ALLISON and HENRY H. KOPMAN

1906 "List of the birds of Louisiana." *Auk*, vol. 23, p. 2.

- [1912] "FOREST REGIONS OF LOUISIANA"
black and white [1:4,800,000]

LEGEND

- | | |
|---------------------------|-------------------|
| 1. Shortleaf pine uplands | 4. Bluff region |
| 2. Longleaf pine region | 5. Prairie region |
| 3. Alluvial region | 6. Sea marsh |

Line within area of longleaf pine region indicates division between longleaf pine hills and longleaf pine flats.

FOSTER, J. H.

1912 *Forest conditions in Louisiana*. U. S. Forest Serv., Bull. no. 114, p. 9. Reprinted, 1916 [1:5,900,000], in Harper, Roland M.,

"Forest conditions in Louisiana [Review]." *Geographical Review*, vol. 2, p. 475.

[1914] "A PHYTOGEOGRAPHIC MAP SHOWING THE PRINCIPAL VEGETATION AREAS"
in color [1:1,100,000]

LEGEND

- | | |
|------------------------------------|-------------------------|
| 1. Marsh lands | 5. Long-leaf pine flats |
| 2. Alluvial lands | 6. Prairie lands |
| 3. Wooded alluvial or cypress land | 7. Bluff lands |
| 4. Long-leaf pine hills | 8. Uplands |

ANON.

1916 Baton Rouge, Department of Agriculture and Immigration.

1934 "AREAS CHARACTERIZED BY THE MAJOR FOREST TYPES, STATE OF
LOUISIANA"
in color 1:1,000,000

LEGEND

- | | |
|---------------------------------|------------------------------|
| 1. Longleaf | 7. Oaks-mixed hardwoods |
| 2. Longleaf-slash | 8. Red gum-mixed hardwoods |
| 3. Shortleaf-loblolly-hardwoods | 9. Cypress-tupelo |
| 4. Loblolly-hardwoods | 10. Water oaks |
| 5. Mixed upland hardwoods | 11. Overcup oak-bitter pecan |
| 6. Mixed bottomland hardwoods | 12. Marsh or prairie |

UNITED STATES. *Forest Service*

1934 In Winters, R. K., and G. B. Ward, Jr., *Louisiana forest resources and industries*. U. S. Dept. Agr., Misc. Publ. no. 51, inserted at back.

1936 "AREAS CHARACTERIZED BY MAJOR FOREST TYPES, SOUTHEAST LOUISIANA"
green, black and white [1:1,600,000]

LEGEND

- | | |
|---------------------------------|--------------------------------|
| 1. Longleaf | 4. Mixed bottom-land hardwoods |
| 2. Shortleaf-loblolly-hardwoods | 5. Marsh |
| 3. Loblolly-hardwoods | 6. Prairie |

UNITED STATES. *Forest Service*

1939 In Cruikshank, James W. *Forest resources of southwest Louisiana*. Southern Forest Exp. Sta., Forest Surv. Release no. 43, p. 3.

1936 "AREAS CHARACTERIZED BY THE MAJOR FOREST TYPES, SOUTH LOUISIANA
DELTA"
green, black and white [1:1,500,000]

LEGEND

- | | |
|----------------------------|-----------------------------|
| 1. Longleaf | 6. Cypress-tupelo |
| 2. Loblolly-hardwoods | 7. Overcup oak-bitter pecan |
| 3. Mixed upland hardwoods | 8. Marsh |
| 4. Oaks-mixed hardwoods | 9. Prairie |
| 5. Red gum-mixed hardwoods | |

UNITED STATES. *Forest Service*

1939 *In* Winters, R. K. *Forest resources of the South Louisiana Delta*. Southern Forest Exp. Sta., Forest Survey Release no. 42, facing p. 2.

1937 "PHYSIOGRAPHIC MAP OF LOUISIANA"
black and white 1:4,400,000

LEGEND

- | | |
|--|--|
| <p>A. The coastal region</p> <ol style="list-style-type: none"> 1. Coastal sand & shell ridge 2. Coastal marshes and deltas <p>B. Fresh water regions at or near Gulf level</p> <ol style="list-style-type: none"> 3. Hardwood alluvial ridges and intervening swamps, marshes & lakes 4. Prairies 5. Longleaf pine flats | <p>C. The large interior river valleys</p> <ol style="list-style-type: none"> 6. Hardwood valley lands and river basin swamps and lakes above Gulf level <p>D. The uplands</p> <ol style="list-style-type: none"> 7. Bluff lands (hardwood uplands) 8. Longleaf pine hills 9. Shortleaf pine and hardwood uplands (shortleaf pine hills) |
|--|--|

PENFOUND, WILLIAM *and* EDWARD S. HATHAWAY

1938 "Plant communities in the marshlands of southeastern Louisiana." *Ecological Monographs*, vol. 8, p. 7. Reprinted: 1943 1:4,200,000, *in* Penn, G. H., Jr., "A study of the life history of the Louisiana red-crawfish, *Cambarus clarkii* Girard." *Ecology*, vol. 24, p. 2.

1937 "AREAS CHARACTERIZED BY THE MAJOR FOREST TYPES IN NORTHWEST LOUISIANA"
green, black, and white [1:1,800,000]

LEGEND

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Longleaf 2. Shortleaf-loblolly-hardwoods | <ol style="list-style-type: none"> 3. Loblolly-hardwoods 4. Mixed bottomland hardwoods |
|--|--|

UNITED STATES. *Forest Service*

1938 *In* Eldredge, I. F., *Forest resources of northwest Louisiana*. Southern Forest Exp. Sta., Forest Survey Release no. 31, facing p. 6.

[1938] "PRINCIPAL FOREST TYPES IN THE NORTH-LOUISIANA DELTA"
in color [1:1,100,000]

LEGEND

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Hackberry-elm-ash 2. Red gum-water oaks 3. Cottonwood-willow | <ol style="list-style-type: none"> 4. Overcup oak-bitter pecan 5. Oaks-mixed hardwoods 6. Water oaks |
|---|---|

WINTER, R. K., J. A. PUTNAM *and* I. F. ELDRIDGE

1938 *Forest resources of the north-Louisiana delta*. U. S. Dept. Agr., Misc. Publ. no. 309, inserted at back.

[1938] "LOCATION OF EVERGREEN OAK FOREST ON BAYOU SAUVAGE"
black and white [1:325,000]

LEGEND

1. Evergreen oak forest

PENFOUND, WILLIAM T. and JULIAN R. HOWARD

1940 "A phytosociological study of an evergreen oak forest in the vicinity of New Orleans, Louisiana." *American Midland Naturalist*, vol. 23, p. [166].

[1939] "PEARL RIVER DELTA AND ADJACENT AREAS, ST. TAMMANY & ORLEANS PARISHES"

black and white

[1:346,000]

LEGEND

1. River bottom forest

2. Pine flats

3. Marsh

4. Cypress-gum swamps

5. Oak

6. Pecan

7. Cypress-bay-gum

HALL, THOMAS F. and WILLIAM T. PENFOUND

1939 "A phytosociological study of a cypress-gum swamp in southeastern Louisiana." *American Midland Naturalist*, vol. 21, p. 379.

[1939] "BLACK GUM SWAMP, ST. TAMMANY PARISH, SOUTHEASTERN LOUISIANA"

black and white

[1:110,000]

LEGEND

1. Black gum

2. Black gum-tupelo gum & cypress

3. Pinelands

4. River bottom forest

HALL, THOMAS F. and WILLIAM T. PENFOUND

1939 "A phytosociological study of a *Nyssa biflora* consocieties in southeastern Louisiana." *American Midland Naturalist*, vol. 22, p. 369.

[1939] "INDIAN VILLAGE SWAMP"

black and white

[1:10,800]

LEGEND

1. Cypress-gum swamp

2. Levee vegetation

3. Marsh

4. Pine

5. Oak

HALL, THOMAS F. and WILLIAM T. PENFOUND

1939 "A phytosociological study of a cypress-gum swamp in southeastern Louisiana." *American Midland Naturalist*, vol. 21, p. 380.

[1940] "PRAIRIES OF SOUTHWEST LOUISIANA, LAND UTILIZATION"

black and white

1:1,675,000

LEGEND

1. Pine woods

a. Pine flats

b. Pine hills

2. Woods, deciduous and pine

3. Sea marsh

4. Prairie boundary

a. Sabine Prairie

b. Calcasieu Prairie

- | | |
|------------------------|------------------------|
| c. Prairie Mamou | g. Prairie Roberts |
| d. Prairie Faquetaique | h. Mermentau Prairie |
| e. Grand Prairie | i. Vermilion Prairie |
| f. Plaquemine Prairie | 5. Pine flats boundary |

Also shows agricultural land types

POST, LAUREN C.

1940 "The rice country of southwestern Louisiana." *Geographical Review*, vol. 30, p. 577.

[1942] "MARSH ISLAND, VEGETATION TYPES"

black and white

[1:43,300]

LEGEND

1. Sea-rim or goose and cattle marsh, dominated by wiregrass (*Spartina patens*) and salt grass (*Distichlis spicata*)
2. Blackrush (*Juncus roemerianus*) dominated marsh
3. Three-cornered grass (*Scirpus olneyi* and *robustus*) marsh
4. Wiregrass (*S. patens*) and three-cornered grass (*S. olneyi*) marsh eaten out by an excessive rat population. Many of the three-cornered grass areas are completely denuded

O'NEIL, TED

1949 *The muskrat in the Louisiana coastal marshes, a study of the ecological, geological, biological, tidal, and climatic factors governing the production and management of the muskrat industry in Louisiana.* New Orleans, Louisiana Department of Wild Life and Fisheries, Federal Aid Section—Fish and Game Division, facing p. 110.

[1944] "GEOLOGICAL FORMATIONS IN THE VICINITY OF ZIMMERMAN, LA."

black and white

[1:96,000]

LEGEND

1. Recent floodplains of Bayou Jean de Jean and Red River covered with a cypress swamp
2. Prairie Terrace with beech and magnolia
3. Montgomery Terrace with shortleaf pine
4. Miocene deposits with longleaf pine
5. Narrow tongues of Recent and Prairie extending into the older formations. These are small stream bottoms from which cypress is absent and the vegetation consists of red maple, red gum, beech, magnolia, and, in places, pines

BROWN, CLAIR A.

1944 "Historical commentary on the distribution of vegetation in Louisiana and some recent observations." *Proc. Louisiana Acad. Sci.*, vol. 8, p. 42.

[1944] "GENERALIZED GEOLOGY SOUTH OF MANY, LA., SHOWING GENERAL VEGETATION"

black and white

[1:84,000]

LEGEND

- | | |
|-------------------|------------------|
| 1. Shortleaf pine | 2. Longleaf pine |
|-------------------|------------------|

BROWN, CLAIR A.

1944 "Historical commentary on the distribution of vegetation in Louisiana and some recent observations." *Proc. Louisiana Acad. Sci.*, vol. 8, p. 44.

- [1945] "MAP OF THE SOUTHERN PART OF LOUISIANA SHOWING VEGETATION TYPES OF THE LOUISIANA MARSHES"
in color [1:260,000]

LEGEND

- | | |
|--|--|
| 1. Fresh water marsh | 6. Intermediate marsh (between brackish and fresh) |
| 2. Floating fresh marsh | 7. Leafy three-cornered grass or coco marsh |
| 3. Excessively drained salt marshes | 8. Saw grass marsh |
| 4. Brackish three-cornered grass marsh | 9. Sea rim |
| 5. Floating three-cornered grass marsh | |

Each item is accompanied by a paragraph to explain the relation of muskrats and other animals to the habitat, to describe physical site characteristics, and to list prominent plant species

O'NEIL, TED

1949 *The muskrat in the Louisiana coastal marshes, a study of the ecological, biological, tidal, and climatic factors governing the production and management of the muskrat industry in Louisiana.* New Orleans, Louisiana Department of Wild Life and Fisheries, Federal Aid Section—Fish and Game Division, in pocket.

- [1945] "MISSISSIPPI RIVER DELTA: A TYPE MAP OF THE PLANT SUCCESSIONS OF THE ACTIVE DELTA [AT OCTAVE PASS, DELTA MIGRATORY WATER FOWL REFUGE]"
black and white incalculable

LEGEND

1. Annual deposits of mud, too recent for normal plant establishment
2. Older mud-flats dominated by fresh-water three-cornered rush and delta duck potato in favorable years
3. Area strongly affected by fall and winter salt-tides, dominated by cattail, roseau cane, with oyster grass and cut-grass along natural levees
4. Dog tooth grass ridges
5. Roseau cane clumps
6. Unstable deep marsh areas normally dominated by cattails but now shared with alligator grass and water hyacinth
7. Solid stands of willow along older pass levees
8. Yellow cut-grass zone between willows and marsh proper
9. Zone seldom affected by storm tides. Alligator grass is bidding for dominance of this area at present

O'NEIL, TED

1949 *The muskrat in the Louisiana coastal marshes, a study of the ecological, biological, tidal, and climatic factors governing the production and management of the muskrat industry in Louisiana.* New

Orleans, Louisiana Department of Wild Life and Fisheries, Federal Aid Section—Fish and Game Division, facing p. 6.

- [1954] "MAJOR FOREST TYPES IN LOUISIANA"
in color [1:2,600,000]

LEGEND

- | | |
|----------------------------|--|
| 1. Loblolly-shortleaf pine | 5. Oak-gum-cypress |
| 2. Longleaf-slash pine | 6. Nontyped; less than 10% forest
[includes marshes which are indicated by standard symbol] |
| 3. Oak-pine | |
| 4. Oak-hickory | |

UNITED STATES. *Forest Service*

1955 *Forests of Louisiana, 1953-1954*. Southern Forest Exp. Sta., Forest Survey Release no. 75, p. 5. Reprinted, 1955 in Sternitzke, Herbert S., and Philip R. Wheeler, "Louisiana forests turn the corner." *Forests & People* (Louisiana Forestry Assoc.), vol. 5, no. 2, p. 8.)

- [1956] "TREE REGIONS OF LOUISIANA"
black and white [1:4,500,000]

LEGEND

- | | |
|--------------------------------------|----------------------------|
| 1. Shortleaf pine-oak-hickory region | cypress region |
| 2. Longleaf pine region | 4. Upland hardwoods region |
| 3. Bottomland hardwoods and | 5. Prairie region |
| | 6. Marsh region |

BROWN, CLAIR A.

1956 *Commercial trees of Louisiana*. Baton Rouge, Louisiana Forestry Comm., p. 3. Reprinted, 1959 in his *Commercial trees of Louisiana*. Second edition. Baton Rouge, Louisiana Forestry Comm., p. 3.

- [n. d.] "STATE OF LOUISIANA PRINCIPAL FOREST TYPES"
green, black and white [1:2,290,000]

LEGEND

- | | |
|---------------------------------|---------------------------|
| 1. Shortleaf-loblolly-hardwoods | 5. Longleaf |
| 2. Longleaf-slash | 6. Prairie |
| 3. Loblolly-hardwoods | 7. Mixed upland hardwoods |
| 4. Mixed bottomland hardwoods | 8. Coastal marsh |

LOUISIANA. *Forestry Commission*

[n.d.] Baton Rouge, Louisiana, James E. Mixon, State Forester.

MAINE

- 1881 "MAP OF MAINE SHOWING THE DISTRIBUTION OF PINE AND SPRUCE FORESTS WITH SPECIAL REFERENCE TO THE LUMBER INDUSTRY"
in color [1:2,555,000]

LEGEND

1. Existing pine (*Pinus strobus*) and spruce (*Picea nigra*) forest, largely cut over
2. Pine, and uncut spruce forest
3. Region containing large bodies of scattered pine
4. Region from which merchantable pine and spruce have been removed
5. Region containing a larger proportion of hemlock (*Tsuga canadensis*)

SARGENT, CHARLES SPRAGUE

1884 "Report on the forests of North America (exclusive of Mexico)." U. S. Dept. Interior, Census Office, *Tenth Census of the U. S.*, vol. 9, facing p. 496.

- [1927] "VEGETATION MAP OF MOUNT DESERT ISLAND, MAINE"
in color [1:92,200]

LEGEND

- | | |
|------------------------------|----------------|
| 1. Spruce | 7. Cedar |
| 2. Mixed conifer | 8. Burns |
| 3. Fir | 9. Marsh |
| 4. Pitch pine | 10. Bog |
| 5. Hardwoods | 11. Rock |
| 6. Northern hardwoods-spruce | 12. White pine |

MOORE, BARRINGTON and NORMAN TAYLOR

1927 *Vegetation of Mount Desert Island, Maine, and its environment*. Brooklyn Bot. Gard. Mem., vol. 3, following title page.

- [1932] "FOREST COVER TYPE AREAS OF MAINE"
black and white [1:3,000,000]

LEGEND

- | | |
|--------------------------------------|-------------------------|
| 1. Spruce-fir and northern hardwoods | 2. White birch |
| | 3. White pine-hardwoods |

WILKINS, AUSTIN H.

1932 *The forests of Maine, their extent, character, ownership, and products*. Augusta, Maine Forest Serv., Bull. no. 8, p. 17.

- 1947 "FOREST TYPE MAP, HANCOCK COUNTY, MAINE"
black and white [1:177,400]

LEGEND

- | | |
|----------------------------------|-------------------------|
| 1. Aspen, gray birch, pin cherry | 6. Northern hardwoods |
| 2. Paper birch | 7. Spruce-fir |
| 3. White pine-hardwood | 8. Spruce-fir-hardwoods |
| 4. Hardwoods-white pine | 9. Hardwoods-spruce-fir |
| 5. White pine | 10. Non-forest |

HARTMAN, F. J.

1947 Upper Darby, Penna., Northeastern Forest Exp. Sta.

1953 "VEGETATION OF SOUTHEASTERN MOUNT DESERT ISLAND, MAINE, I
(PHYSIOGNOMIC SYSTEM BY A. W. KÜCHLER)"

in color

1:25,000

LEGEND

1. Needleleaf evergreen trees, medium tall
2. Needleleaf evergreen trees, medium tall and low
3. Needleleaf evergreen trees, low
4. Needleleaf evergreen trees, medium tall, with patches of medium tall broadleaf deciduous trees
5. Needleleaf evergreen trees, medium tall, with patches of low broadleaf deciduous trees
6. Needleleaf evergreen trees, medium tall with low broadleaf deciduous trees and shrubs
7. Needleleaf evergreen trees, medium tall, with broadleaf deciduous shrubs and dwarf shrubs
8. Needleleaf evergreen low trees with patches of low broadleaf deciduous trees
9. Needleleaf evergreen low trees with low broadleaf deciduous trees and shrubs
10. Needleleaf evergreen low trees with broadleaf deciduous shrubs and dwarf shrubs
11. Broadleaf deciduous trees, medium tall, with patches of low needleleaf evergreen trees
12. Broadleaf deciduous trees, medium tall, with patches of shrubs and needleleaf evergreen trees
13. Broadleaf deciduous low trees with patches of needleleaf evergreen low trees
14. Broadleaf deciduous medium tall and low trees and shrubs with patches of needleleaf evergreen medium tall and low trees
15. Broadleaf deciduous low trees with patches of shrubs and needleleaf evergreen trees
16. Broadleaf deciduous shrubs and dwarf shrubs with patches of needleleaf evergreen trees
17. Broadleaf deciduous low trees and shrubs with patches of medium tall and low needleleaf evergreen trees
18. Broadleaf deciduous trees, medium tall
19. Broadleaf deciduous trees, medium tall and low
20. Broadleaf deciduous trees, medium tall and shrubs
21. Broadleaf deciduous trees, medium tall and patches of shrubs
22. Broadleaf deciduous trees, medium tall and low, and patches of shrubs
23. Broadleaf deciduous low trees
24. Broadleaf deciduous low trees and shrubs
25. Broadleaf deciduous low trees and patches of shrubs
26. Broadleaf deciduous shrubs
27. Broadleaf deciduous dwarf shrubs
28. Broadleaf deciduous shrubs and dwarf shrubs with patches of medium tall and low broadleaf deciduous trees

- 29. Broadleaf deciduous shrubs and dwarf shrubs
- 30. Grass
- 31. Grass with patches of broadleaf deciduous shrubs and dwarf shrubs
- 32. Grass with patches of broadleaf deciduous shrubs and needleleaf evergreen trees
- 33. Water
- 34. Urban and agricultural
- 35. Grass
- 36. Barren patches, rock outcrops
- 37. Barren rock, with patches of broadleaf deciduous and broadleaf evergreen dwarf shrubs, grass, forbs and needleleaf evergreen dwarf shrubs and occasional low trees

Additional physiognomic information given by overprinted symbols

KÜCHLER, A. W.

1956 "Classification and purpose in vegetation maps." *Geographical Review*, vol. 46, no. 2, in pocket.

1953 "VEGETATION OF SOUTHEASTERN MOUNT DESERT ISLAND, MAINE, II (FLORISTIC SYSTEM BY K. HUECK)"

in color

1:25,000

LEGEND

- | | |
|------------------------|----------------------------|
| 1. White pine forest | 11. Birch forest |
| 2. Pitch pine forest | 12. Deciduous shrubs |
| 3. White cedar forest | 13. Blueberries-sweet fern |
| 4. Red spruce forest | 14. Sweet gale-leatherleaf |
| 5. Black spruce forest | 15. Grassland |
| 6. White spruce forest | 16. Sedges |
| 7. Balsam fir forest | 17. Summit type |
| 8. Oak forest | 18. Barren |
| 9. Beech forest | 19. Urban and agricultural |
| 10. Red maple forest | 20. Water |

Additional floristic information given by overprinted symbols

KÜCHLER, A. W.

1956 "Classification and purpose in vegetation maps." *Geographical Review*, vol. 46, no. 2, in pocket.

1953 "VEGETATION OF SOUTHEASTERN MOUNT DESERT ISLAND, MAINE, III (PHYSIOGNOMIC-FLORISTIC SYSTEM BY A. E. WIESLANDER)"

in color

1:25,000

LEGEND

- | | |
|-----------------------|---------------------------------|
| 1. Barren | 9. Grassland-woodland-conifers |
| 2. Urban-agricultural | 10. Woodland-conifers |
| 3. Grassland-meadow | 11. Miscellaneous conifer types |
| 4. Grassland-shrubs | 12. Commercial conifers |
| 5. Dwarf shrubs | 13. Shrubs-conifers |
| 6. Shrubs | 14. Sub-alpine |
| 7. Shrubs-woodland | 15. Water |
| 8. Woodland | |

Additional floristic information given by overprinted symbols

KÜCHLER, A. W.

1956 "Classification and purpose in vegetation maps." *Geographical Review*, vol. 46, no. 2, in pocket.

[1954] "FOREST TYPES OF MAINE"

black and white

[1:9,900,000]

LEGEND

1. Spruce-fir

3. White pine-hardwoods

2. Northern hardwood

ANON.

1954 *Maine forest facts*, 1954 edition. Bangor, Maine, Maine Forest Industries Committee, in cooperation with Amer. Forest Products Industries, Inc., p. 3.

1960 "THE MAJOR FOREST TYPES IN MAINE"

in color

[1:2,100,000]

LEGEND

1. White and red pine

4. Aspen-birch

2. Spruce-fir

5. Nonforest

3. Maple-beech-birch

FERGUSON, ROLAND H. and FRANKLIN R. LONGWOOD

1960 *The timber resources of Maine*. Northeastern Forest Exp. Sta., unnumbered publ., pp. [38-39].

MARYLAND

1909-1914 "[FOREST AREAS OF MARYLAND, BY COUNTIES]"

in color

1:187,500

LEGEND

- | | |
|-----------------------------------|--------------------------------------|
| 1. Hardwoods | b. Mixed hardwoods and scrub pine |
| 2. White pine | c. Mixed hardwoods and pitch pine |
| 3. Scrub pine | d. Mixed hardwoods and loblolly pine |
| 4. Pitch pine | e. Mixed hardwoods and hemlock |
| 5. Loblolly pine | f. Mixed hardwoods and cypress |
| 6. Cypress | |
| 7. Hemlock | |
| 8. Cypress and loblolly pine | |
| 9. Mixed hardwoods and conifers | |
| a. Mixed hardwoods and white pine | |

BESLEY, F. W.

1916 *The forests of Maryland*. Maryland State Board of Forestry, unnumbered publ. Maps for counties, with date of survey and page that each faces, are as follows: Allegheny, 1912, p. 46; Ann Arundel, 1910, p. 50; Baltimore, 1910, p. 54; Calvert, 1909, p. 58; Caroline, 1910, p. 62; Carroll, 1911, p. 66; Cecil, 1911, p. 70; Charles, 1912, p. 74; Dorchester, 1910, p. 78; Frederick, 1911, p. 82; Garrett, 1909, p. 86; Hartford, 1909, p. 90; Howard, 1910, p. 94; Kent, 1909, p. 98; Montgomery, 1910, p. 102; Prince George, 1907, p. 1006; Queen Anne's, 1909, p. 110; St. Mary's, 1909, p. 114; Somerset, 1910, p. 118; Talbot, 1910, p. 122; Washington, 1911, p. 126; Wicomico, 1908, p. 130; Worcester, 1914, p. 1936.

[1945] "PATUXENT RESEARCH REFUGE, ANNE ARUNDEL AND PRINCE GEORGE COUNTIES, MARYLAND, VEGETATIONAL TYPES"

in color

[1:7,920]

LEGEND

- | | |
|-------------------------------------|------------------|
| A. Flood plain | |
| 1. Marsh-meadows | } poorly drained |
| 2. Shrub swamps | |
| 3. Transition swamps | |
| 4. River swamps | |
| 5. Second growth swamps | |
| 6. Bottomland forest (well drained) | |
| B. Terrace and upland | |
| 7. Seepage swamps | |

MARYLAND

- 8. Terrace and bluff forests
 - 9. Upland oak forest
 - 10. Wet meadows
 - 11. Sweetgum fields
 - 12. Immature seepage swamps
 - 13. Abandoned fields
 - 14. Pine fields
 - 15. Pine stands
 - 16. Pine-oak forests
- } poorly drained
- } well drained
- } secondary succession
- C. Agricultural and residential areas
- 17. Cultivated fields
 - 18. Pastures
 - 19. Residential and related areas
 - 20. Hedgerows and wood margins
 - 21. Water
 - 22. Gravel pits

STEWART, ROBERT E. and JOHN W. BRAINERD

1945 U. S. Fish and Wildlife Serv., (printed by Soil Conserv. Serv.),
2 sheets.

1950 "MAJOR FOREST TYPES IN MARYLAND, 1950"
black and white [1:3,300,000]

LEGEND

- 1. Oak-hickory
- 2. Oak-pine
- 3. Oak-gum-cypress
- 4. Maple-beech-birch
- 5. Loblolly-shortleaf pine
- 6. Nonforest

UNITED STATES. *Forest Service*

1955 In McGuire, John R., *The timber resource in Maryland*.
Northeastern Forest Exp. Sta., unnumbered publication, p. 20.

1952 "MARSH TYPES OF CHOPTANK & BLACKWATER RIVER WATERSHEDS,
MARYLAND"
green, black, and white [1:480,000]

LEGEND

- 1. Cattail aquatic
- 2. Three-square cattail
- 3. Three-square
- 4. Mixed brackish marsh
- 5. Needle-rush saltmeadow
- 6. Saltmarsh

NICHOLSON, W. R. and R. D. VAN DEUSEN

1954 *Marshes of Maryland*. Maryland Game and Inland Fish
Comm., Resource Study Rept. no. 6, p. 5.

1952 "MARSH TYPES OF EASTERN BAY AREA & CHESTER RIVER WATERSHED,
MARYLAND"
green, black, and white [1:467,000]

LEGEND

- 1. Cattail aquatic
- 2. Three-square cattail
- 3. Three-square
- 4. Mixed brackish marsh
- 5. Needle-rush saltmeadow
- 6. Saltmarsh

NICHOLSON, W. R. and R. D. VAN DEUSEN

1954 *Marshes of Maryland*. Maryland Game and Inland Fish Comm., Resource Study Rept. no. 6, p. 3.

- 1952 "MARSH TYPES OF NANTICHOKE WICOMICO RIVER WATERSHEDS, MARYLAND"
green, black, and white [1:362,000]

LEGEND

- | | |
|-------------------------|--------------------------|
| 1. Cattail aquatic | 4. Mixed brackish marsh |
| 2. Three-square cattail | 5. Needle-rush saltmarsh |
| 3. Three-square | 6. Saltmarsh |

NICHOLSON, W. R. and R. D. VAN DEUSEN

1954 *Marshes of Maryland*. Maryland Game and Inland Fish Comm., Resource Study Rept. no. 6, p. 7.

- 1952 "MARSH TYPES OF ATLANTIC OCEAN DRAINAGE, POCOMOKE RIVER WATERSHED, MARYLAND"
green, black, and white [1:284,000]

LEGEND

- | | |
|-------------------------|---------------------------|
| 1. Cattail aquatic | 4. Mixed brackish marsh |
| 2. Three-square cattail | 5. Needle-rush saltmeadow |
| 3. Three-square | 6. Salt marsh |

NICHOLSON, W. R. and R. D. VAN DEUSEN

1954 *Marshes of Maryland*. Maryland Game and Inland Fish Comm., Resource Study Rept. no. 6, p. 9.

- [1955] "MAP OF FREDERICK COUNTY SHOWING THE TOPOGRAPHY"
black and white [1:302,000]

LEGEND

- | | |
|---------------------|-----------------|
| 1. Seasonal wetland | 3. Wooded swamp |
| 2. Shrub swamp | 4. Forest pond |

WARREN, JOHN

1956 In: *Wetlands of Maryland*. Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

- [1955] "MAP OF MONTGOMERY COUNTY AND DISTRICT OF COLUMBIA SHOWING THE TOPOGRAPHY"
black and white [1:302,000]

LEGEND

- | | |
|---------------------|-----------------|
| 1. Seasonal wetland | 3. Shrub swamp |
| 2. Forest pond | 4. Wooded swamp |

ANON.

1956 *Wetlands of Maryland*. Baltimore, Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

MARYLAND

- [1955] "MAP OF WASHINGTON COUNTY SHOWING THE TOPOGRAPHY"
black and white [1:302,000]

LEGEND

- | | |
|----------------|---------------------|
| 1. Shrub swamp | 3. Wooded swamp |
| 2. Forest pond | 4. Seasonal wetland |

ANON.

1956 *Wetlands of Maryland*. Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

- [1955] "MAP OF ANNE ARUNDEL COUNTY SHOWING THE TOPOGRAPHY"
black and white [1:288,000]

LEGEND

- | | |
|-------------------------------|-----------------|
| 1. Salt meadow | 5. Shrub swamp |
| 2. Shallow fresh marsh | 6. Forest pond |
| 3. Seasonal wetland | 7. Wooded swamp |
| 4. Open fresh water and edges | |

ANON.

1956 *Wetlands of Maryland*. Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

- [1955] "MAP OF BALTIMORE COUNTY AND BALTIMORE CITY SHOWING THE TOPOGRAPHY"
black and white [1:288,000]

LEGEND

- | | |
|------------------------|-----------------|
| 1. Seasonal wetland | 4. Forest pond |
| 2. Shallow fresh marsh | 5. Wooded swamp |
| 3. Shrub swamp | |

ANON.

1956 *Wetlands of Maryland*. Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

- [1955] "MAP OF DORCHESTER COUNTY SHOWING TOPOGRAPHY"
black and white [1:275,000]

LEGEND

- | | |
|-------------------------------|-----------------|
| 1. Salt marsh | 5. Forest ponds |
| 2. Salt meadow | 6. Wooded swamp |
| 3. Shallow fresh marsh | 7. Shrub swamp |
| 4. Open fresh water and edges | |

WARREN, JOHN

1956 *In: Wetlands of Maryland*. Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

- [1955] "MAP OF PRINCE GEORGE'S COUNTY SHOWING THE TOPOGRAPHY"
black and white [1:275,000]

LEGEND

- | | |
|------------------------|---------------------|
| 1. Seasonal wetland | 4. Forest pond |
| 2. Shallow fresh marsh | 5. Deep fresh marsh |
| 3. Shrub swamp | 6. Wooded swamp |

ANON.

1956 *Wetlands of Maryland*. Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

[1955] "MAP OF HARFORD COUNTY SHOWING THE TOPOGRAPHY"

black and white

[1:270,000]

LEGEND

- | | |
|------------------------|-----------------|
| 1. Shallow fresh marsh | 4. Shrub swamp |
| 2. Seasonal wetland | 5. Wooded swamp |
| 3. Forest pond | |

ANON.

1956 *Wetlands of Maryland*. Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

[1955] "MAP OF ALLEGANY COUNTY SHOWING TOPOGRAPHY"

black and white

[1:264,000]

LEGEND

- | | |
|---------------------|-----------------|
| 1. Seasonal wetland | 3. Forest pond |
| 2. Shrub swamp | 4. Wooded swamp |

ZELLER, HOWARD R.

1956 *In: Wetlands of Maryland*. Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

[1955] "MAP OF CALVERT COUNTY SHOWING THE TOPOGRAPHY"

black and white

[1:264,000]

LEGEND

- | | |
|------------------------|-------------------------------|
| 1. Shallow fresh marsh | 5. Open fresh water and edges |
| 2. Salt meadow | 6. Forest pond |
| 3. Seasonal wetland | 7. Wooded swamp |
| 4. Shrub swamp | |

ANON.

1956 *Wetlands of Maryland*. Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

[1955] "MAP OF GARRETT COUNTY SHOWING THE TOPOGRAPHY"

black and white

[1:264,000]

LEGEND

- | | |
|----------------|-----------------|
| 1. Shrub swamp | 3. Wooded swamp |
| 2. Forest pond | |

ANON.

1956 *Wetlands of Maryland*. Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

MARYLAND

- [1955] "MAP OF KENT COUNTY SHOWING THE TOPOGRAPHY"
black and white [1:264,000]

LEGEND

- | | |
|-------------------------------|-----------------|
| 1. Salt meadow | 5. Forest pond |
| 2. Shallow fresh marsh | 6. Shrub swamp |
| 3. Deep fresh marsh | 7. Wooded swamp |
| 4. Open fresh water and edges | |

ZELLER, HOWARD R.

1956 *In: Wetlands of Maryland.* Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

- [1955] "MAP OF ST. MARY'S COUNTY SHOWING THE TOPOGRAPHY"
black and white [1:264,000]

LEGEND

- | | |
|------------------------|-------------------------------|
| 1. Salt meadow | 4. Open fresh water and edges |
| 2. Shallow fresh marsh | 5. Forest pond |
| 3. Shrub swamp | 6. Wooded swamp |

ANON.

1956 *Wetlands of Maryland.* Baltimore, Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

- [1955] "MAP OF WORCESTER COUNTY SHOWING TOPOGRAPHY"
black and white [1:264,000]

LEGEND

- | | |
|------------------------|-----------------|
| 1. Salt marsh | 4. Forest pond |
| 2. Salt meadow | 5. Shrub swamp |
| 3. Shallow fresh marsh | 6. Wooded swamp |

WARREN, JOHN

1956 *In: Wetlands of Maryland.* Baltimore, Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

- [1955] "MAP OF QUEEN ANNE'S COUNTY SHOWING TOPOGRAPHY"
black and white [1:253,000]

LEGEND

- | | |
|-------------------------------|-----------------|
| 1. Open fresh water and edges | 5. Salt meadow |
| 2. Deep fresh marsh | 6. Wooded swamp |
| 3. Shallow fresh marsh | 7. Forest pond |
| 4. Salt marsh | |

ZELLER, HOWARD R.

1956 *In: Wetlands of Maryland.* Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

- [1955] "MAP OF SOMERSET COUNTY SHOWING TOPOGRAPHY"
black and white [1:250,000]

LEGEND

- | | |
|------------------------|-----------------|
| 1. Salt marsh | 4. Wooded swamp |
| 2. Salt meadow | 5. Shrub swamp |
| 3. Shallow fresh marsh | |

WARREN, JOHN

1956 *In: Wetlands of Maryland.* Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

- [1955] "MAP OF CARROLL COUNTY SHOWING TOPOGRAPHY"
black and white [1:238,000]

LEGEND

- | | |
|---------------------|----------------|
| 1. Seasonal wetland | 3. Shrub swamp |
| 2. Wooded swamp | 4. Forest pond |

ANON.

1956 *Wetlands of Maryland.* Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

- [1955] "MAP OF CAROLINE COUNTY SHOWING TOPOGRAPHY"
black and white [1:232,000]

LEGEND

- | | |
|---------------------|-----------------------------|
| 1. Wooded swamp | 4. Forest pond |
| 2. Shrub swamp | 5. Shallow fresh marsh |
| 3. Deep fresh marsh | 6. Open fresh water & edges |

ZELLER, HOWARD R.

1956 *In: Wetlands of Maryland.* Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

- [1955] "MAP OF TALBOT COUNTY SHOWING TOPOGRAPHY"
black and white [1:230,000]

LEGEND

- | | |
|------------------------|-------------------------------|
| 1. Salt meadow | 6. Deep fresh marsh |
| 2. Sounds and bays | 7. Forest pond |
| 3. Shallow fresh marsh | 8. Wooded swamp |
| 4. Salt marsh | 9. Open fresh water and edges |
| 5. Shrub swamp | |

ZELLER, HOWARD R.

1956 *In: Wetlands of Maryland.* Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

- [1955] "MAP OF WICOMICO COUNTY SHOWING THE TOPOGRAPHY"
black and white [1:226,000]

LEGEND

- | | |
|------------------------|-----------------|
| 1. Shallow fresh marsh | 4. Wooded swamp |
| 2. Salt meadow | 5. Shrub swamp |
| 3. Salt marsh | 6. Forest pond |

MARYLAND

WARREN, JOHN

1956 *In: Wetlands of Maryland*. Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

- [1955] "MAP OF CECIL COUNTY SHOWING TOPOGRAPHY"
black and white [1:223,000]

LEGEND

- | | |
|---------------------|-------------------------------|
| 1. Seasonal wetland | 5. Wooded swamp |
| 2. Shrub swamp | 6. Shallow fresh marsh |
| 3. Deep fresh marsh | 7. Open fresh water and edges |
| 4. Forest pond | |

ANON.

1956 *Wetlands of Maryland*. Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

- [1955] "MAP OF HOWARD COUNTY SHOWING TOPOGRAPHY"
black and white [1:211,000]

LEGEND

- | | |
|----------------|---------------------|
| 1. Shrub swamp | 3. Seasonal wetland |
| 2. Forest pond | 4. Wooded swamp |

ANON.

1956 *Wetlands of Maryland*. Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

- [1955] "MAP OF CHARLES COUNTY SHOWING TOPOGRAPHY"
black and white [1:63,400]

LEGEND

- | | |
|------------------------|---------------------|
| 1. Shallow fresh marsh | 5. Forest pond |
| 2. Salt meadow | 6. Wooded swamp |
| 3. Deep fresh marsh | 7. Seasonal wetland |
| 4. Shrub swamp | |

ANON.

1956 *Wetlands of Maryland*. Maryland Game and Inland Fish Comm., Pittman-Robertson Project no. W-30-R, inserted at back.

MASSACHUSETTS

1830 "THE CONCORD AREA ONE HUNDRED YEARS AGO"
black and white [1:86,400]

LEGEND

- | | |
|-----------|----------------------------|
| 1. Forest | 3. Filled land and pasture |
| 2. Marsh | |

Redrawn from Shattuck, Lemuel, A history of the Town of Concord. [Original not seen]

HALES, JOHN

1941 *In* Ackerman, Edward, "Sequent occupance of a Boston suburban community." *Economic Geography*, vol. 17, p. 63.

[1904] "MAP OF THE SAND AREAS INCLOSING CAPE COD HARBOR"
black and white [1:66,600]

LEGEND

- | | |
|----------------------------|----------------|
| 1. Beech grass plantations | 3. Fresh marsh |
| 2. Salt marsh | 4. Forest |

WESTGATE, J. M.

1904 *Reclamation of Cape Cod sand dunes*. U. S. Dept. Agric., Bur. Plant Indus., Bull. no. 65, frontpiece.

1912, 1919, 1923, 1937, 1946 "FOREST TYPE MAPS OF SLAB CITY IX AND X [HARVARD FOREST, PETERSHAM, MASSACHUSETTS, ON FIVE MAPS]"
black and white [1:17,000]

LEGEND

1. White pine
2. Hemlock
3. Hardwoods: red oak, white ash, paper birch, black birch
4. [Pioneer hardwoods such as black cherry, gray birch, and aspen]
5. [Open alluvial land]

SPURR, STEPHEN H.

1956 "Forest associations in the Harvard Forest." *Ecological Monographs*, vol. 26, p. 250.

[1914] "VEGETATION OF NANTUCKET"
black and white [1:142,000]

LEGEND

- | | |
|-------------------|----------|
| 1. Sand dune veg. | 2. Heath |
|-------------------|----------|

- 3. Oak heath
- 4. Salt marsh
- 5. Deciduous woods

- 6. Introduced pine
- 7. Farmland

HARSHBERGER, JOHN W.

1914 "The vegetation of Nantucket." *Bull. Geogr. Soc. Philadelphia*, vol. 12, following p. 71.

[1939] "VEGETATION OF NANTUCKET ISLAND"

black and white

[1:221,000, not 1:62,500 as stated]

LEGEND

- 1. Sand dune vegetation
- 2. Heath
- 3. Oak
- 4. Salt marsh
- 5. Marsh or bog

- 6. Deciduous woods
- 7. Introduced pine
- 8. Cranberry bog (commercial)
- 9. Beech
- 10. Farmland

GUBA, E. F.

1939 "List of second hundred fungi of Nantucket." *Rhodora*, vol. 41, p. 511.

[1936] "DISTRIBUTION OF ALGAL COMMUNITIES ON PART OF ROMNEY MARSH NEAR OAK ISLAND"

black and white

[incalculable]

LEGEND

- 1. *Sphacelaria radicans*
- 2. *Ascophyllum* and *Fucus vesiculosus*
- 3. *Cladophora gracilis* var. *vadorum*
- 4. *Vaucheria sphaerospora*

- 5. *Enteromorpha prolifera* var. *tubulosa*
- 6. *Enteromorpha minima*
- 7. *Rhizoclonium tortuosum*
- 8. *Cyanophyceae*

CHAPMAN, V. J.

1940 "Studies in salt-marsh ecology. Sections VI and VII. Comparison with marshes on the east coast of North America." *Journal of Ecology*, vol. 28, p. 120.

[1936] "DISTRIBUTION OF THE PHANEROGAMS ON PART OF ROMNEY MARSH NEAR OAK ISLAND"

black and white

[incalculable]

LEGEND

- 1. *Juncus gerardi*
- 2. *Triglochin maritimum*
- 3. *Plantago oliganthos*
- 4. *Spartina alterniflora*
- 5. *Salicornia* and *Suaeda*
- 6. *Spartina patens*

- 7. *Limonium trichogonum*
- 8. *Glyceria maritima*
- 9. *Distichlis spicata*
- 10. *Spartina pectinata*
- 11. *Scirpus robustus*

CHAPMAN, V. J.

1940 "Studies in salt-marsh ecology. Sections VI and VII. Comparison with marshes on the east coast of North America." *Journal of Ecology*, vol. 28, facing p. 119.

- [1942] "MAP OF PLANT COMMUNITIES ON GRASSY ISLAND"
 black and white [1:1,100]

LEGEND

- | | |
|---------------------------------|------------------------------|
| 1. <i>Scirpus robustus</i> | 4. <i>Spartina patens</i> |
| 2. <i>Spartina pectinata</i> | 5. <i>Typha angustifolia</i> |
| 3. <i>Spartina alterniflora</i> | |

JOHNSON, FREDERICK and HUGH M. RAUP

1947 *Grassy Island, archeological and botanical investigations of an Indian site in the Taunton River, Massachusetts.* Papers Robert S. Peabody Found. Archaeol., vol. 1, no. 2, p. 16.

- [1952] "RAND'S HARBOR, MEGANSETT, MASS. [SHOWING THE LOCATION OF ROOTED VEGETATION]"
 black and white [1:5,700]

LEGEND

- | | |
|-----------------------------------|------------------------------|
| 1. <i>Ammophila breviligulata</i> | 5. <i>Salicornia ambigua</i> |
| 2. <i>Iva oraria</i> | 6. <i>Scirpus americanus</i> |
| 3. <i>Limonium carolinianum</i> | 7. <i>Spartina</i> sp. |
| 4. <i>Ruppia maritima</i> | 8. <i>Zostera marina</i> |

BURBANCK, W. D., MADELENE E. PIERCE and G. C. WHITELEY, JR.

1956 "A study of the bottom fauna of Rand's Harbor, Massachusetts: An application of the ecotone concept." *Ecological Monographs*, vol. 26, p. 215.

- [1954] "MAJOR FOREST TYPES OF MASSACHUSETTS"
 in color [1:2,000,000]

LEGEND

- | | |
|---------------|-----------------------|
| 1. White pine | 5. Elm-ash-cottonwood |
| 2. Spruce-fir | 6. Northern hardwood |
| 3. Pitch pine | 7. Aspen-birch |
| 4. Oak | 8. Nontyped |

FERGUSON, ROLAND H. and MILFORD C. HOWARD

1956 *The timber resource in Massachusetts.* Northeastern Forest Exp. Sta., unnumbered publ., inserted at back.

- [1958] "VEGETATION OF MARTHA'S VINEYARD"
 black and white [1:354,000]

LEGEND

- | | |
|----------------|--------------|
| 1. Beach | 4. Grassland |
| 2. Salt marsh | 5. Scrub |
| 3. Bog & swamp | 6. Woodland |

OGDEN, J. GORDON, III

1961 "Forest history of Martha's vineyard, Massachusetts. I. Modern and pre-Colonial forests." *American Midland Naturalist*, vol. 66, p. 420.

MICHIGAN

- [1785] "ORIGINAL VEGETATION OF WAYNE COUNTY, MICHIGAN"
 black and white [1:576,000]

LEGEND

1. Dominantly oak and a few hickories
2. Dominantly beech and a few maples
3. Dominantly swamp types
4. Prairie

DICK, W. BRUCE

1937 "A study of the original vegetation of Wayne County, Michigan." *Papers Michigan Acad. Sci., Arts and Lett.*, vol. 22 (1936), p. 330. Reprinted, 1937 in his "A study of the original vegetation of Wayne County, Michigan." *Michigan Papers in Geogr.* vol. 7, p. 330.

- [1800] "ORIGINAL FORESTS"
 black and white [1:5,600,000]

LEGEND

- | | |
|---------------------------------|----------|
| 1. Hardwoods | 3. Pine |
| 2. Mixed hardwoods and conifers | 4. Swamp |

MITCHELL, J. A. and H. R. SAYRE

1931 *Forest fires in Michigan*. Lansing, Michigan, Department of Conservation, in cooperation with U.S. Department of Agriculture, Forest Service, p. 19. Reprinted, 1957 [1:5,300,000], in McIntire, G. S., and Russell McKee, "100 years of Michigan forests." *Michigan Conservation*, vol. 26, no. 2, p. 6.

- [ca. 1800] "[FOREST TYPES OF THE NORTHERN PENINSULA]"
 black and white [1:4,800,000]

LEGEND

- A. Hardwood
1. Sugar maple, yellow birch, elm, hemlock, beech
 2. Sugar maple, yellow birch, elm, basswood, hemlock, balsam fir (beech rare or absent)
 3. Sugar maple, yellow birch, ash, basswood, elm, beech
 4. Same as in 3, but white pine abundant. Also cedar, spruce, tamarack, fir swamps
 5. Sugar maple, yellow birch, beech, hemlock
- B. Hardwood-conifer
6. Elm, ash, basswood, balsam fir, spruce, white pine

7. No. 2 hardwood, and mixed white pine, Norway, aspen, oaks. Conifer swamps
8. Balsam fir, spruce, hemlock, white pine, maple, yellow birch, basswood mixture, spruce, cedar, fir, tamarack
- C. Conifer-hardwood
 9. Cedar, spruce, fir, white pine dominant. In part sugar maple, birch, beech forest
- D. Conifer
 10. Cedar, spruce, fir, tamarack swamps. Pines on dry soils
- E. Pine
 11. Norway, white and jack pines. Oaks

VEATCH, J. O.

1928 "Reconstruction of forest cover based on soil maps." *Michigan State College, Agr. Exp. Sta., Quart. Bull.*, vol. 10, p. 120.

[ca. 1800] "TYPES OF ORIGINAL FOREST [IN THE LOWER PENINSULA]"

black and white

[1:3,400,000]

LEGEND

- A. Hardwood
 1. Sugar maple, beech, basswood, ash, elm, yellow birch
 2. Sugar maple, yellow birch, beech, elm, hemlock, white pine
 3. Sugar maple-beech (oaks, hickory and other southern species)
 4. Oaks-hickory
 5. Oaks-hickory, white pine abundant
 6. Elm, silver maple, ash, basswood, swamp white oak
 7. Oaks and oak-hickory, beech, maple on drier soils. Elm, silver maple, ash, basswood, pin oak, aspen, on wetter soils
 8. Oaks dominant. Oak-hickory. Sugar maple-beech type locally
 9. Oaks dominant. White pine abundant or locally dominant
- B. Hardwood-conifer
 10. Sugar maple, beech, yellow birch, hemlock. Norway and white pine, local bodies or in mixture with hardwoods
 11. Similar to 7 but white pine and other conifers more abundant
 12. Elm, ash, basswood, red maple; locally sugar maple-beech. Conifers, white pine, hemlock, balsam fir, spruce
- C. Conifer-hardwood complex
 13. Spruce-tamarack swamps, balsam fir, cedar, white pine, Norway pine, jack pine. Small bodies of 1, 2, 9, 14
- D. Pine
 14. Norway, white, jack pines. Oaks
- E. Conifer
 15. Cedar, spruce, balsam fir, white pine, Norway pine. In part 1 and 2 forest

VEATCH, J. O.

1928 "Reconstruction of forest cover based on soil maps." *Michigan State College, Agr. Exp. Sta., Quart. Bull.*, vol. 10, p. 119.

[1800] "ORIGINAL FORESTS OF THE HIGH PLAINS AREA [NORTHERN PART OF LOWER PENINSULA]"

black and white

[1:1,700,000]

LEGEND

1. White pine, with slight mixture of Norway pine and scattered hardwoods

MICHIGAN

2. Norway pine, with some jack and white pine and scattered oaks
3. Jack pine with some Norway and scattered oaks
4. Upland hardwoods—sugar maple, yellow birch, hemlock with scattered white pine
5. White pine dominant, with upland hardwoods
6. Upland hardwoods dominant, with white pine
7. Lowland hardwoods—elm, ash, basswood, red maple dominant—with white and Norway pine
8. Swamp conifers

DAVIS, CHARLES M.

1936 "The High Plains of Michigan." *Papers Michigan Acad. Sci., Arts and Lett.*, vol. 21 (1935), p. 313. Reprinted, 1936 in his "The High Plains of Michigan." *Michigan Papers in Geogr.*, vol. 6, p. 313.

- [1800] "PRINCIPAL FOREST TYPES OF THE UPPER PENINSULA OF MICHIGAN, ORIGINAL AND PRESENT AREAS"
in color [1:1,180,000]

LEGEND

- | | |
|-------------|------------------|
| 1. Pine | 3. Spruce-fir |
| 2. Hardwood | 4. Conifer swamp |

Overprinted symbol indicates "remaining merchantable timber" at time of survey (1935-1936).

CUNNINGHAM, R. N. and others

1941 In Cunningham, R. N., and H. G. White, *Forest resources of the Upper Peninsula of Michigan*. U. S. Dept. Agr., Misc. Publ. no. 429, inserted at back.

- [ca. 1800] "RECONSTRUCTION ON THE BASIS OF SOIL TYPE OF THE ORIGINAL FOREST COVER OF AURELIUS AND A PART OF ONONDAGA TOWNSHIPS, INGHAM COUNTY, MICHIGAN"
black and white [1:128,000]

LEGEND

1. Sugar maple (*Acer saccharum*)-beech
2. Oaks-hickory
3. Elm, silver maple (*Acer saccharinum*), shagbark hickory, ash, swamp white oak, basswood
4. Elm, soft maple, ash
5. Tamarack, aspen, red maple. Shrubs—high-bush huckleberry, winterberry, red osier dogwood
6. Shrubs—huckleberries, leather leaf, etc. *Sphagnum* moss, sedges and grasses
7. Silver maple, elm, ash, hickories, basswood, sycamore, walnut

VEATCH, J. O.

1928 "Reconstruction of forest cover based on soil maps." *Michigan State College, Agr. Exp. Sta., Quart. Bull.*, vol. 10, p. 118.

- [1800] "MAP OF VIRGIN FOREST COVER [RECONSTRUCTED FROM SOIL SURVEY MAP OF THE BIOLOGICAL STATION, UNIVERSITY OF MICHIGAN, CHEBOYGAN COUNTY, MICHIGAN]"
black and white [1:60,300]

LEGEND

1. Pine (Norway pine, white pine, jack pine)
2. Hardwood (sugar maple, beech, elm, basswood, hemlock, yellow birch)
3. Conifer-hardwood (balsam, red maple, elm, white cedar, hemlock, white spruce)
4. Swamp (white cedar, black spruce, balsam, tamarack)

DONAHUE, ROY L.

1936 "A forest soil study of the University of Michigan biological tract." *Papers Michigan Acad. Sci., Arts and Lett.*, vol. 21, (1935), p. 272. Reprinted, 1936 in his "A forest soil study of the University of Michigan biological tract." *Michigan Papers in Geogr.*, vol. 6, p. 272.

[ca. 1830] "PRESETTLEMENT FOREST IN MICHIGAN [UPPER PENINSULA]"

black and white

1:500,000

LEGEND

A. Deciduous-coniferous

1. Sugar maple, beech, elm, yellow birch, hemlock, white pine. Few other conifers
2. Sugar maple, yellow birch, hemlock, white pine. Beech absent. Increase in conifers. Compared with . . . [1]
3. Sugar maple, yellow birch. High proportion of pines and other conifers. Aspen, white birch. Red oak, locally common
4. Intimately mixed deciduous coniferous. High proportion of hemlock
5. Sugar maple, yellow birch, elm, basswood. Hemlock locally very abundant. White pine, fir, cedar, white spruce admixed
6. Sugar maple, yellow birch, elm, basswood, beech. White pine, fir, spruce, cedar included
7. Fir, spruce, white birch, aspen. Few pines. Few or no sugar maple and red oak

B. Pines

8. Norway and jack pines; variable amount of white. Red oak locally common, locally scarce or absent. White oak present only in Menominee County
9. White pine (less Norway and jack). Mixed fir, spruce, hemlock, cedar and deciduous species
10. White and Norway; high proportion of deciduous species, including some sugar maple
11. White pine; Norway sparingly present. High proportion, fir, hemlock, spruce, cedar. Elm, basswood, ash, yellow birch, aspen and other deciduous species
12. Similar to . . . [11], but beech absent
13. Coastal complex, including dunes
14. Mainly pines and swamp conifers, but locally deciduous. Red oak present

C. Coniferous-deciduous (wet sites)

15. Cedar, fir, spruce, hemlock, white pine, variable mixture deciduous species, including small number sugar maple and beech
16. Sugar maple, birch, hemlock, elm, basswood. Beech absent. Fir, spruce, cedar, tamarack, white pine, white birch, aspen. (Either conifers or deciduous may dominate)
17. Fir, spruce, cedar, white pine, tamarack. Aspen, elm, red maple, white birch, alder, willow

18. White pine, less Norway and jack; admixed and associated spruce, fir, cedar, aspen, yellow birch
19. Elm, black ash, red maple, yellow birch, basswood, fir, spruce, cedar, hemlock, white pine
20. Elm, red maple, ash, balsam poplar, aspen, cedar, spruce, white pine
- D. Maximum conifers (peat-muck swamp)
21. Black spruce, tamarack, cedar. Smaller numbers fir, white pine. Variable aspen, white birch, willow, alder, red maple, black ash
22. Black spruce, tamarack. Partly open marsh or bog. Included islands and strips of Norway, jack and white pine

VEATCH, J. O.

1959 East Lansing, Michigan State Univ., Dept. Resource Develop.

[ca. 1830] "PRESETTLEMENT FOREST IN MICHIGAN [LOWER PENINSULA]"

black and white

1:500,000

LEGEND

- I. Southern region oaks
 - A. Oaks
 1. Black oak dominant, red, white, common. Minimum sugar maple, beech. Infrequent white pine
 2. Oaks, white, black, red, pin, swamp white. Variable admixture locally some hickory, sugar maple, beech, tulip, walnut, butternut, sycamore
 3. Oaks. Great diversity of other species, both deciduous and coniferous. Mainly dunes
 - B. Oaks-hickory
 4. Oaks dominant-black, red, white. Hickories common and diversity of deciduous species. Sugar maple, beech present but not common
 5. Large amount of swamp included
 - C. Oaks-hickory-sugar maple
 6. Sugar maple-beech; oaks-hickory; elm, basswood, ash
 7. Oaks-white, red, black; hickory (bitternut, pignut). Sugar maple, beech infrequent
 8. More elm, ash, basswood, shagbark hickory, swamp white oak. (Sugar maple-beech occasionally)
 9. Same as . . . [8] with pine
- II. Transitional and northern region-pines and deciduous-coniferous
 - A. Pines and oaks
 10. Oaks-white pine. Aspen, red maple
 11. Norway, jack, white pines. Oaks, black, white, red, jack. Aspen, red maple
 12. Oaks-pines. Diversity of other species
 - B. Pines-hardwoods
 13. Oaks-white pine. Small amounts sugar maple, beech, yellow birch, hemlock. Hickory, walnut, infrequent to absent
 14. Norway, white pine. Oaks, sugar maple, beech, basswood, elm, aspen, red maple
 15. White pine (less Norway). High proportion of mixed deciduous and coniferous. Fir, spruce, cedar
 16. White pine. Mixed elm, basswood, ash, aspen. Less sugar maple-beech
 17. White pine mixed with southern deciduous species
 - C. Hardwoods (sugar maple)

18. Sugar maple, elm, basswood, ash. Small to large numbers yellow birch, hemlock, white pine. Hickory, walnut, oaks-small numbers to absent
 19. Sugar maple, yellow birch, hemlock, white pine (rarely Norway); red oak
 20. More elm, ash, basswood
- III. Southern deciduous and deciduous-coniferous—wet sites
21. Elm, black ash, red maple, aspen, silver maple, swamp whiteoak, pin oak. White pine, cedar, tamarack, in more northern areas
 22. Elm, silver maple, ash, swamp white oak, basswood, shagbark hickory, sycamore, cottonwood, red oak, bur oak
 23. Elm, red maple, silver maple, ash, sycamore, cottonwood, tulip, butternut, beech
 24. Elm, ash, red maple, swamp white oak, aspen, tamarack. White pine infrequent
- IV. Northern-coniferous-deciduous—wet sites and mixed wet-dry
25. Elm, red maple, ash, aspen, yellow birch, white birch, cedar, spruce, hemlock, white pine
 26. White and Norway pines (less jack pine), oaks. Mixed aspen, spruce, fir, cedar, tamarack, elm, ash, red maple, white birch, yellow birch
 27. Elm, ash, red maple, basswood, yellow birch, aspen, fir, spruce, hemlock, white pine
 28. Wet land deciduous species as in . . . [25 and 27] with white pine and other conifers increasing northward
 29. Admixture of all wet land and upland conifers and deciduous
 30. Spruce, cedar, tamarack, fir. Elm, ash, red maple, aspen. White pine common
 31. Elm, ash, red maple, balsam poplar. Conifers common
- V. Prairies (dry and wet)
32. Dry prairies. Scattered bur oak. Marsh. Clumps of trees and spaced individuals. Species according to locality. Mainly oaks, aspen, willow, tamarack

VEATCH, J. O.

1959 East Lansing, Michigan State Univ., Dept. Resource Develop.

[1830] "MAP OF KALAMAZOO COUNTY, MICHIGAN, INDICATING THE ORIGINAL PLANT ASSOCIATIONS AS DETERMINED FROM THE FIELD NOTES OF THE OLD LAND SURVEY"

black and white

[1:327,000]

LEGEND

1. Oak-hickory forest
2. Beech-maple forest
3. Swamp forest, including stream bottom forest
4. Grasslands, with scattered bur oak

KENOYER, LESLIE A.

1930 "Ecological notes on Kalamazoo County, Michigan, based on the original land survey." *Papers Michigan Acad. Sci., Arts, and Lett.*, vol. 11 (1929), p. 213.

- [1832] "PLANT ASSOCIATIONS OF BARRY, CALHOUN, AND BRANCH COUNTIES"
 black and white [1:704,000]

LEGEND

- | | |
|-----------------------|-----------------------|
| 1. Beech-maple forest | 3. Bur oak forest |
| 2. Oak-hickory forest | 4. Swamp associations |

KENOYER, LESLIE A.

1940 Plant associations in Barry, Calhoun, and Branch Counties, Michigan, as interpreted from the original survey." *Papers Michigan Acad. Sci., Arts, and Lett.*, vol. 25 (1939), p. 76.

- [1832] "FOREST ASSOCIATION MAP OF SOUTHWESTERN MICHIGAN"
 black and white [1:570,000]

LEGEND

- | | |
|-----------------------|-----------------------|
| 1. Beech-maple forest | 4. Dry prairies |
| 2. Oak-hickory forest | 5. Swamp associations |
| 3. Oak-pine forest | |

Also indicates localities in which hemlock and white pine occurred

KENOYER, LESLIE A.

1934 "Forest distribution in southwestern Michigan as interpreted from the original land survey (1826-32)." *Papers Michigan Acad. Sci., Arts and Lett.*, vol. 19 (1933), facing p. 108. Reprinted, 1934 in his "Forest distribution in southwestern Michigan as interpreted from the original land survey (1826-32)." *Michigan Papers in Geogr.*, vol. 4, facing p. 108; 1948 [1:1,200,000], in Oosting, Henry J., *The study of plant communities, an introduction to plant ecology*. San Francisco, W. H. Freeman and Co., p. 53.

- [ca. 1850] "ORIGINAL VEGETATION [OF A PART OF ONEIDA, VILAS, AND IRON COUNTIES, MICHIGAN]"
 black and white [1:957,000]

LEGEND

- | | |
|---|-----------------------------|
| 1. Hardwood (exclusively)
(hemlock included) | 4. Softwood (predominantly) |
| 2. Hardwood (predominantly) | 5. Softwood (exclusively) |
| 3. Mixed | 6. Swamp-marsh-bog |

ICKE, PAUL W.

1941 "Original forest vegetation in a glaciated area." *Trans. Illinois State Acad. Sci.*, vol. 34, p. 148.

- 1881 "MAP OF THE LOWER PENINSULA OF MICHIGAN SHOWING THE DISTRIBUTION OF FORESTS, WITH SPECIAL REFERENCE TO THE LUMBER INDUSTRY"
 in color [1:2,600,000]

LEGEND

- | | |
|-----------------------|---------------------------|
| 1. Hard wood | 3. Cut pine and hard wood |
| 2. Pine and hard wood | 4. Barrens |

SARGENT, CHARLES SPRAGUE

1884 Report on the forests of North America (exclusive of Mexico)." U. S. Dept. Interior, Census Office, *Tenth Census of the U. S.*, vol. 9, following p. 550.

- 1881 "MAP OF THE UPPER PENINSULA OF MICHIGAN SHOWING THE DISTRIBUTION OF FORESTS, WITH SPECIAL REFERENCE TO THE LUMBER INDUSTRY"
in color [1:2,500,000]

LEGEND

- | | |
|-----------------------|---------------------------|
| 1. Hard wood | 4. Cut pine |
| 2. Standing pine | 5. Cut pine and hard wood |
| 3. Pine and hard wood | 6. Barrens |

SARGENT, CHARLES SPRAGUE

1884 Report on the forests of North America (exclusive of Mexico)." U. S. Dept. Interior, Census Office, *Tenth Census of the U. S.*, vol. 9, facing p. 551.

- 1893 "MAP SHOWING THE POSITION OF STATIONS AND THE DISTRIBUTION OF PLANTS . . ."
black and white [1:404,000]

LEGEND

- | | |
|-----------------|--------------------|
| 1. Phragmitetum | 3. Potamogetonetum |
| 2. Scirpetum | 4. Characetum |

PIETERS, A. J.

1894 *The plants of Lake St. Clair.* Bull. Michigan Fish Comm., no. 2, inserted at back.

- [1901] "UPLAND PLANT SOCIETIES OF KENT CO., MICHIGAN"
black and white [1:340,000]

LEGEND

- | | |
|-----------------------------------|---|
| 1. Beech-maple society | 5. The oak-pine-sassafras society |
| 2. The maple-elm-agrimony society | 6. Deeply-eroded channels occupied chiefly by lowland societies |
| 3. The oak-hickory society | |
| 4. The oak-hazel society | |

LIVINGSTON, BURTON EDWARD

1902 "The distribution of the plant societies of Kent County, Michigan." *Geol. Surv. Michigan, Ann. Rept.* for 1901, preceding p. 81. Reprinted, 1902 in his "The distribution of the plant societies of Kent County, Michigan." *Rept. State Board Geol. Surv. of Michigan* for the year 1901, facing p. [80].

- 1903 "[SOILS AND VEGETATION OF A PORTION OF ROSCOMMON AND CRAWFORD COUNTIES]"
in color [1:317,000]

LEGEND

- | | |
|---------------|----------------|
| 1. Hardwood | 3. Norway pine |
| 2. White pine | 4. Jack pine |

LIVINGSTON, BURTON EDWARD

1905 "The relation of soils to natural vegetation in Roscommon and Crawford Counties, Michigan." *Botanical Gazette*, vol. 39, facing p. 22.

[1905] "CHELSEA BOG"
black and white

[1:6000]

LEGEND

- | | |
|----------------------------|------------------|
| 1. Sedge | 4. Chokecherry |
| 2. Birch- <i>Vaccinium</i> | 5. Poplar-willow |
| 3. Young poplar | |

TRANSEAU, EDGAR NELSON

1905 "The bogs and bog flora of the Huron River Valley." *Botanical Gazette*, vol. 40, p. 445.

[1905] "MAP OF BAYOU [AT YPSILANTE] SHOWING DISTRIBUTION OF SOCIETIES IN RELATION TO WATER AND TOPOGRAPHY"

black and white

[1:4000, not 1:2880 as stated]

LEGEND

- | | |
|----------------------------------|-----------------------|
| 1. Yellow pond lily | 10. Tamarack society |
| 2. White water lily | 11. Water sedge |
| 3. Shrubby <i>Salix</i> | 12. Sweet flag |
| 4. Elm-ash-maple | 13. Cattail |
| 5. Arboreal <i>Salix</i> | 14. Meadow |
| 6. Ironweed | 15. Mixed thicket |
| 7. Aster | 16. Walnut society |
| 8. Goldenrod | 17. Black oak society |
| 9. <i>Juncus</i> and mixed sedge | |

BROWN, FORREST B. H.

1905 "A botanical survey of the Huron River Valley. III." *Botanical Gazette*, vol. 40, p. 266.

[1905] "PORTION OF DELHI BOG"
black and white

[1:3600]

LEGEND

- | | |
|-------------------|------------------------------------|
| 1. Aquatic | 3. <i>Typha-Cassandra-Sphagnum</i> |
| 2. Tamarack-birch | 4. Clearing |

TRANSEAU, EDGAR NELSON

1905 "The bogs and bog flora of the Huron River Valley." *Botanical Gazette*, vol. 40, p. 437.

[1905] "FIRST SISTER LAKE"
black and white

[1:3200]

LEGEND

- | | |
|--------------|------------------------|
| 1. Aquatic | 4. Bog shrub |
| 2. Bog sedge | 5. Poplar-willow-maple |
| 3. Tamarack | 6. Mixed low ground |

TRANSEAU, EDGAR NELSON

1905 "The bogs and bog flora of the Huron River Valley." *Botanical Gazette*, vol. 40, p. 433.

[1905] "BOG ON CARPENTER ROAD"

black and white

[1:2600]

LEGEND

- | | |
|-----------------|-----------------|
| 1. Tamarack | 3. Willow-sedge |
| 2. Poplar-maple | |

TRANSEAU, EDGAR NELSON

1905 "The bogs and bog flora of the Huron River Valley." *Botanical Gazette*, vol. 40, p. 442.

[1905] "BOG NEAR OXFORD, OAKLAND COUNTY"

black and white

[1:2500]

LEGEND

- | | |
|--------------|--------------------|
| 1. Bog sedge | 3. Tamarack-spruce |
| 2. Bog shrub | 4. Willow-sedge |

TRANSEAU, EDGAR NELSON

1905 "The bogs and bog flora of the Huron River Valley." *Botanical Gazette*, vol. 40, p. 439.

[1909] "DEAD LAKE"

black and white

1:4800

LEGEND

- | | |
|--|---------------------|
| 1. Area which had been cleared of tamarack before it was suitable for maple-poplar or the clearing society | 4. Bog sedge |
| 2. Tamarack | 5. Cultivated field |
| 3. Bog shrub | 6. Water lilies |
| | 7. Open water |
| | 8. Oak woods |

BURNS, GEORGE PLUMER

1909 "A botanical survey of the Huron River Valley. VII. Position of the greatest peat deposit in local bogs." *Botanical Gazette*, vol. 47, facing p. 447.

[1909] "FIRST SISTER LAKE"

black and white

1:2880

LEGEND

- | | |
|---------------|--------------|
| 1. Open water | 3. Bog shrub |
| 2. Bog sedge | 4. Clearing |

- 5. Tamarack
- 6. Maple-poplar

- 7. Willow
- 8. Oak-hickory

BURNS, GEORGE PLUMER

1909 "A botanical survey of the Huron River Valley. VII. Position of the greatest peat deposit in local bogs." *Botanical Gazette*, vol. 47, facing p. 446.

- [1913] "MAP OF RASPBERRY ISLAND . . . BOG AREA"
black and white

[1:2800]

LEGEND

- 1. Sedge
- 2. *Sphagnum-Chamaedaphne*
- 3. *Sphagnum-Ledum*
- 4. *Sphagnum-Ledum* invading forest
- 5. Bog forest
- 6. Marginal zone

COOPER, WILLIAM S.

1913 "The climax forest of Isle Royale, Lake Superior, and its development. III." *Botanical Gazette*, vol. 55, p. 199.

- [1922] "THE PLATTE PLAINS SAND RIDGE REGION, BENZIE COUNTY, MICHIGAN"
black and white

[1:175,000]

LEGEND

- 1. Deciduous forest extensions
- 2. Tamarack cedar forest
- 3. Grass meadow

WATERMAN, W. G.

1922 "Development of plant communities of a sand ridge region in Michigan. *Botanical Gazette*, vol. 74, p. 8.

- 1923 "COVER MAP OF ANTRIM COUNTY [MICHIGAN]"
in color

[1:63,360]

LEGEND

- A. Upland timber types
 - 1. Basswood, elm, ash, maple
 - 2. Maple, beech, yellow birch, hemlock
 - 3. Poplar and white birch predominant
 - 4. Fire cherry predominant
 - 5. Hemlock predominant
 - 6. White pine predominant with some Norway pine
- B. Lowland timber types
 - 7. Elm, Balm-of-Gilead, black ash, red maple, white pine
 - 8. Cedar predominant with some tamarack, balsam, spruce
 - 9. Tamarack predominant, with some cedar, balsam, spruce
 - 10. Spruce, balsam predominant; in sphagnum bogs
- C. Bog and marsh types
 - 11. Alder bottom
 - 12. Grass swamp
 - a. Sedges

- b. Blue joint
 - c. Wire grass
 - 13. Bog, leather leaf, blueberry bogs
 - D. Open wild land types
 - 14. Sumac
 - 15. Raspberries, grass, sweet fern
 - 16. Areas recently burned
 - E. Farmed land
 - 17. Cleared farm land (city, village, and industrial property)
 - 18. Stump farm land
 - 19. Stump pasture land
 - 20. Permanent pasture, cleared but usually steep or rocky
 - 21. Commercial orchard
 - 22. Apparently idle or abandoned farm land
- Includes information on diameter classes and stocking

MICHIGAN. *Department of Conservation*

1923 Lansing, Michigan Dept. Conserv., Land Economic Survey.

1923 "COVER MAP OF OGEMAW COUNTY [MICHIGAN]"
in color

[1:63,360]

LEGEND

- A. Upland timber types
 - 1. Basswood, elm, ash, maple
 - 2. Maple, beech, yellow birch, hemlock
 - 3. Poplar and white birch predominant
 - 4. Oak predominant, with some red maple
 - 5. Jack pine predominant, occasionally with oak
 - 6. Norway pine predominant, with some white pine
- B. Lowland timber types
 - 7. Elm, Balm-of-Gilead, black ash, red maple, white pine
 - 8. Cedar predominant with some tamarack, balsam, spruce
 - 9. Tamarack predominant; with some cedar, balsam, spruce
 - 10. Spruce, balsam predominant, in sphagnum bogs
- C. Bog and marsh types
 - 11. Alder bottom
 - 12. Grass swamp, sedges, bluejoint, wire grass
 - 13. Bog, leather leaf, blueberry bogs
- D. Open wild land types
 - 14. Areas recently burned
- E. Farmed land
 - 15. Cleared farm land (city, village and industrial property)
 - 16. Stump farm land
 - 17. Stump pasture land
 - 18. Permanent pasture, cleared but usually steep and rocky
 - 19. Commercial orchard
 - 20. Apparently idle or abandoned farm land

Includes information on diameter classes and stocking

MICHIGAN. *Department of Conservation*

1923 Lansing, Michigan Dept. Conserv., Land Economic Survey.

1924 "FARM-FOREST MAP OF ALPENA COUNTY [MICHIGAN]"
in color

[1:63,360]

LEGEND

- A. Upland forest types
 - 1. White pine predominating
 - 2. Norway pine predominating
 - 3. Jack pine predominating
 - 4. Maple, beech, yellow birch, hemlock, basswood, elm, white ash
 - 5. Oak predominating with some red maple
 - 6. Poplar and white birch
 - 7. Fire cherry
- B. Lowland forest types
 - 8. Elm, Balm of Gilead, black ash, red maple
 - 9. White cedar, tamarack, spruce, balsam, fir
 - 10. Spruce, balsam fir
- C. Bog and marsh types
 - 11. Alder, willow
 - 12. Marshes; sedges, wiregrass, bluejoint, etc.
 - 13. Bogs; leather leaf, blueberry, cranberry, *sphagnum* moss, etc.
- D. Open wild land types
 - 14. Natural upland grass
 - 15. Sumac
 - 16. Briars
 - 17. Sweetfern
 - 18. Lake beach
- E. Cleared land types
 - 19. Industrial and residential land
 - 20. Farmed land
 - 21. Stump farm land
 - 22. Pastured land
 - 23. Stump pasture land
 - 24. Orchards
 - 25. Apparently idle farm and pasture land

Includes information on diameter classes and stocking

MICHIGAN. *Department of Conservation*

1924 Lansing, Michigan Dept. Conserv., Land Economic Survey.

1924 "FARM-FOREST MAP OF ROSCOMMON COUNTY [MICHIGAN]"
in color

[1:63,360]

LEGEND

- A. Upland forest types
 - 1. White pine predominating
 - 2. Norway pine predominating
 - 3. Jack pine predominating. Js indicates planted Scotch pine
 - 4. Maple, beech, yellow birch, hemlock, basswood, elm, white ash
 - 5. Hemlock predominating
 - 6. Oak predominating with some red maple
 - 7. Poplar and white birch
 - 8. Fire cherry
- B. Lowland forest types
 - 9. Elm, balm of Gilead, black ash, etc.
 - 10. White cedar, tamarack, spruce balsam fir
 - 11. Spruce, balsam fir
- C. Bog and marsh types
 - 12. Alder, willow

13. Marshes; sedges, wiregrass, bluejoint
14. Bogs; leather leaf, blueberry, cranberry, *sphagnum* moss
- D. Open wild land types
 15. Areas recently burned
 16. Sweetfern
 17. Briars
 18. Natural upland grass
- E. Cleared land types
 19. Farmed land (includes industrial and residential property)
 20. Stump farm land
 21. Pastured land
 22. Stump pasture land
 23. Orchards
 24. Apparently idle farm and pasture land

Includes information on diameter classes and stocking

MICHIGAN. *Department of Conservation*

1924 Lansing, Michigan Dept. Conserv., Land Economic Survey.

1925 "FARM-FOREST MAP OF MENOMINEE COUNTY [MICHIGAN]"
in color

[1:63,360]

LEGEND

- A. Upland forest types
 1. White pine predominating
 2. Norway pine predominating
 3. Jack pine predominating
 4. Maple, beech, yellow birch, hemlock
 5. Basswood, elm, white ash, maple
 6. Hemlock predominating
 7. Oak predominating with some red maple
 8. Poplar and white birch
 9. Fire cherry
- B. Lowland forest types
 10. Elm, balm of Gilead, black ash, red maple, white pine
 11. Balm of Gilead, poplar, elm, black ash, white cedar, spruce, tamarack
 12. White cedar, tamarack, spruce, balsam fir
 13. Spruce, tamarack, balsam fir, in *sphagnum* bog
- C. Bog and marsh types
 14. Alder, willow
 15. Marshes; sedges, wiregrass, bluejoint, etc.
 16. Bogs; leather leaf, blueberry, cranberry, *sphagnum* moss, etc.
- D. Open wild land types
 17. Natural upland grass
 18. Sumac
 19. Briars
 20. Sweetfern
 21. Lake beach
- E. Cleared land types
 22. Industrial and residential land
 23. Farmed land
 24. Stump farmed land
 25. Pastured land
 26. Stumped pastured land

- 27. Orchards
- 28. Apparently idle farm and pasture land

MICHIGAN. *Department of Conservation*

1925 Lansing, Michigan Dept. Conserv., Land Economic Survey.

- [1926] "MAP OF THE AREA SURROUNDING DOUGLAS LAKE, MICHIGAN, U.S.A."
black and white [1:121,000]

LEGEND

- | | |
|-----------------------|----------------|
| 1. Bog | 3. Pine |
| 2. <i>Picea-Abies</i> | 4. Beech-maple |

GATES, FRANK C.

1926 "Plant successions about Douglas Lake, Cheboygan County, Michigan." *Botanical Gazette*, vol. 82, p. 172-173.

- 1926 "BRYANT'S BOG, CHEBOYGAN COUNTY, MICHIGAN"
black and white [1:970]

LEGEND

- | | |
|-----------------------------------|--|
| 1. <i>Chamaedaphne calyculata</i> | 4. <i>Picea mariana</i> |
| 2. <i>Larix laricina</i> | 5. <i>Pinus strobus</i> |
| 3. <i>Nemopanthus mucronata</i> | 6. Clumps of <i>Picea</i> and <i>Larix</i> |

GATES, FRANK C.

1932 In Coburn, Helen, Doris Dean, and Gertrude M. Grant, "An ecological study of Bryant's Bog, Cheboygan County, Michigan." *Papers Michigan Acad. Sci., Arts, and Lett.*, vol. 17, p. 59.

- 1926 "MAP OF LINNÉ BOG, CHEBOYGAN COUNTY, MICHIGAN"
black and white [1:620]

LEGEND

1. *Carex*
 - a. Mixture—not pure *Carex*, no *Chamaedaphne*, much *Onoclea*, brush, small *Salix* sp.
 - b. Less *Onoclea*
 - c. Brush, logs, and *Carex*
 - d. *Carex* and invasions from cultivated field
 - e. *Carex* in foss
 - f. Trees, *Carex*, some *Chamaedaphne* and foss plants from cultivated field
2. *Chamaedaphne*
3. *Typha latifolia* sparingly
4. *Aspidium thelypteris*
5. *Aronia arbutifolia*
6. *Nemopanthus mucronata*
7. Trees

DEAN, DORIS and HELEN COBURN

1928 "An ecological study of Linné Bog, Cheboygan County, Michigan, with a special reference to *Nemopanthus mucronata* (L.) Trelease." *Papers Michigan Acad. Sci., Arts, Letts.*, vol. 8 (1927), p. 89.

- [1927] "MAP SHOWING DISTRIBUTION OF PRAIRIES IN MICHIGAN"
black and white [1:2,600,000]

LEGEND

1. [Prairie]

VEATCH, JETHRO OTTO

1928 "The day prairies of Michigan." *Papers Michigan Acad. Sci., Arts, Letts.*, vol. 8 (1927), p. 271.

- 1927 "FARM AND FOREST MAP OF CRAWFORD COUNTY [MICHIGAN]"
in color [1:63,360]

LEGEND

- A. Upland forest types
1. White pine
 2. Norway pine
 3. Jack pine
 4. Oak (red, white, scarlet)
 5. Red maple
 6. Maple, beech, elm, basswood, yellow birch
 7. Hemlock
 8. Aspen
 9. Aspen, white birch
 10. Fire cherry
- B. Lowland forest types
11. Elm, black ash, balm of Gilead, red maple, yellow birch
 12. Cedar, spruce, tamarack, balsam
 13. Cedar predominant
 14. Spruce predominant
 15. Tamarack predominant
- C. Marsh and bog types
16. Marshes; sedge, wire grass, bluejoint
 17. Marshes; cattails
 18. Bogs; leather leaf, *sphagnum*
 19. Alder, willow
- D. Open wild land types
20. Areas recently logged
 21. Areas recently burned
 22. Briars
 23. Upland grass
 24. Bracken
 25. Sweetfern
 26. Sumac
 27. Upland willow
- E. Cleared land
28. Farmed land
 29. Stump farmed land
 30. Pastured land
 31. Orchards
 32. Apparently idle farm and pasture land
 33. Industrial or residential land

Includes information on diameter classes and stocking

MICHIGAN. *Department of Conservation*

1927 Lansing, Michigan Dept. Conserv., Land Economic Survey.

1927 "FARM AND FOREST MAP OF KALKASKA COUNTY, MICHIGAN"

in color

[1:63,360]

LEGEND

- A. Upland forest types
 - 1. White pine
 - 2. Norway pine
 - 3. Jack pine
 - 4. Oak (red, white, scarlet)
 - 5. Red maple
 - 6. Maple, beech, elm, basswood, yellow birch
 - 7. Hemlock
 - 8. Aspen
 - 9. Aspen, white birch
 - 10. Fire cherry
- B. Lowland forest types
 - 11. Elm, black ash, balm of Gilead, red maple, yellow birch
 - 12. Cedar, spruce, tamarack, balsam
 - 13. Cedar predominant
 - 14. Spruce predominant
 - 15. Tamarack predominant
- C. Marsh and bog types
 - 16. Marshes; sedge, wire grass, bluejoint
 - 17. Marshes; cattails
 - 18. Bogs; leather leaf, *sphagnum*
 - 19. Alder, willow
- D. Open wild land
 - 20. Areas recently logged
 - 21. Areas recently burned
 - 22. Briars
 - 23. Upland grass
 - 24. Bracken
 - 25. Sweetfern
 - 26. Sumac
 - 27. Upland willow
- E. Cleared land
 - 28. Farmed land
 - 29. Stump farmed land
 - 30. Pastured land
 - 31. Stump pastured land
 - 32. Orchards
 - 33. Apparently idle farm and pasture land
 - 34. Industrial or residential land

Includes information on diameter classes and stocking

MICHIGAN. *Department of Conservation*

1927 Lansing, Michigan Dept. Conserv., Land Economic Survey.

[1927] "SKETCH OF THE VEGETATION AT THE HARTFORD BOG AT THE PLACE WHERE THE BORINGS WERE MADE"

black and white

[incalculable]

LEGEND

- | | |
|---|--------------------------------------|
| 1. Water | 4. <i>Chamaedaphne-Sphagnum</i> soc. |
| 2. <i>Salix-Decodon</i> thicket | 5. [Birch wood] |
| 3. <i>Eleocharis-Sphagnum</i> [sociation] | |

Additional floristic information is given by symbols.

OSVALD, HUGO

1935 "A bog at Hartford, Michigan." *Ecology*, vol. 16, p. 521.

[1928] "NATURAL DISTRICTS, ALGER COUNTY, MICHIGAN"

black and white

[1:620,000]

LEGEND

- | | |
|-------------|----------|
| 1. Hardwood | 3. Swamp |
| 2. Pine | 4. Dunes |

MICHIGAN. *Department of Conservation*

1932 In Schoenmann, Lee Roy A., "Land inventory for rural planning in Alger County, Michigan." *Papers Michigan Acad. Sci., Arts and Lett.*, vol. 16 (1931), p. 341. Reprinted, 1932 in his "Land inventory for rural planning in Alger County, Michigan." *Michigan Papers in Geogr.*, vol. 2, p. 341.

[1928] "SKETCH MAP OF THE DELTA AT THE HEAD OF McCARGOE COVE"

black and white

[not calculated]

LEGEND

- | | |
|------------|------------------------|
| 1. Aquatic | 4. Shrub |
| 2. Sedge | 5. Swamp forest—burned |
| 3. Grass | |

BROWN, CLAIR A.

1933 *Ferns and flowering plants of Isle Royale, Michigan*. Washington, National Park Service, Emergency Conservation Work, p. 28.

[1929] "LOCATION OF 'SCRUB OAK' LAND IN THE NORTHERN PART OF THE LOWER PENINSULA OF MICHIGAN"

black and white

[1:570,000]

LEGEND

1. Sandy oak lands

KITTREDGE, JOSEPH and A. K. CHITTENDEN

1929 *Oak forests of northern Michigan*. Agr. Exp. Sta., Michigan State College, and Lake States Forest Exp. Sta., Spec. Bull. no. [190], p. 4.

[1929] "NATURAL DISTRICTS OF KALKASKA COUNTY, BASED UPON RELIEF, SOIL, AND COVER"

black and white

[1:369,000]

LEGEND

- | | |
|------------------------------|---|
| 1. Low sandy and loamy plain | 2. Hilly sandy and loamy hard-wood upland |
|------------------------------|---|

- | | |
|---------------------------------------|------------------------------|
| 3. Sandy loam hardwood plain | 6. Sandy hardwood hills |
| 4. Sandy pine plain | 7. Sandy oak and pine hills |
| 5. Rolling sandy loam hardwood upland | 8. Swamp and other wet lands |

DE VRIES, WADE

1929 In Barnes, Carleton P., "Land resources inventory in Michigan." *Economic Geography*, vol. 5, p. 31.

- [1929] "COVER MAP OF A PART OF FLOWERFIELD TOWNSHIP, ST. JOSEPH COUNTY, MICHIGAN"
black and white [1:45,000]

LEGEND

- A. Upland timber associations
 - 1. Oak, hickory, elm, basswood, white ash, cherry
 - 2. Sugar maple, beech, oak, elm, hickory, white ash, cherry
- B. Swamp and semiswamp timber associations
 - 3. Elm, ash, silver maple, swamp white oak, aspen, tamarack, willow
 - 4. Tamarack, aspen, maple, elm, willow
- C. Shrub brush associations
 - 5. Brush and small second growth following lumbering
 - 6. Osier, huckleberry, *Ilex*, tamarack, aspen, birch
- D. Marsh associations
 - 7. Sedge, bluejoint, shrub willow, aspen, birch, tamarack
 - 8. Leatherleaf, *sphagnum*, blueberry
- E. Non-cropped cleared lands
 - 9. Apparently idle or abandoned land
 - 10. Permanent pasture
 - 11. Swamp pasture
- F. Cropped lands

Several other vegetation types listed in the authors' legend were not found on the map and are omitted here

GUTHE, OTTO E. and KENNETH C. McMURRAY

1931 "Cover mapping in southern Michigan." *Papers Michigan Acad. Sci., Arts and Lett.*, vol. 14 (1930), p. 346 (legend p. 347). Reprinted, 1930 in their "Cover mapping in southern Michigan." *Michigan Papers in Geogr.*, vol. 1, p. 346 (legend p. 347).

- [1935] "COVER MAP OF THE HIGH PLAINS AREA [NORTHERN PART OF LOWER PENINSULA]"
black and white [1:2,000,000]

LEGEND

- 1. Upland hardwoods, beech-maple—including young stands containing much poplar and fire cherry
- 2. Lowland hardwoods, elm-ash-red maple—includes some cedar and spruce
- 3. Poplar, with birch and fire cherry
- 4. Oak
- 5. Jack pine
- 6. Swamp conifers
- 7. Land cleared for agriculture—including stump pasture and abandoned fields

DAVIS, CHARLES M.

1936 "The High Plains of Michigan." *Papers Michigan Acad. Sci., Arts and Lett.*, vol. 21 (1935), p. 320. Reprinted, 1936 in his "The High Plains of Michigan." *Michigan Papers in Geogr.*, vol. 6, p. 320.

[1936] "PIERPORT BOG, MANISTEE COUNTY, MICHIGAN"

black and white

[1:2800]

LEGEND

- | | |
|---|-------------------------------------|
| 1. <i>Chamaedaphne-Andromeda</i> ,
over water | 3. <i>Chamaedaphne</i> , pure stand |
| 2. <i>Chamaedaphne</i> scrub, tamarack
and few pines | 4. Swamp zone |
| | 5. Cleared beech, maple, hemlock |
| | 6. Pond |

OLSON, IRVING E. W.

1944 "Ecological studies of Pierport, Bear Lake, and Edgewater bogs in Michigan." *Papers Michigan Acad. Sci., Arts, and Lett.*, vol. 29 (1943), p. 36.

1939 "DISTRIBUTION OF FORESTS IN THE UPPER PENINSULA OF MICHIGAN"

in color

[1:253,000]

LEGEND

1. Northern hardwoods-saw timber (upland forest of sugar maple, hemlock, yellow birch, elm, beech, basswood, white pine—pure or in mixture)
2. Northern hardwoods-young growth (upland forest of sugar maple, yellow birch, elm, beech, basswood—little hemlock or white pine)
3. Mixed hardwoods and softwoods (spruce, balsam fir, white cedar, aspen and paper birch on uplands with mixture of elm, soft maple, yellow birch, balm-of-Gilead and black ash on lowlands)
4. Pine (jack pine, white pine and red pine)
5. Conifer swamps (black spruce, white cedar, tamarack or balsam fir in deep peat swamps)
6. Aspen-brush (aspen, paper birch, scrub oak or pin cherry and deforested lands, covered with brush, ferns or grass—upland and lowland)
7. Agricultural land (open or partially cleared areas occupied by farms or industrial developments. Includes many scattered patches of woods)

UNITED STATES. *Forest Service*

1939 Lake States Forest Exp. Sta., 2 sheets (East half and West half).

[1940] "PRINCIPAL FOREST TYPES OF THE UPPER PENINSULA OF MICHIGAN, ORIGINAL AND PRESENT AREAS"

in color

[1:1,200,000]

LEGEND

- | | |
|-------------|------------------|
| 1. Pine | 3. Spruce-fir |
| 2. Hardwood | 4. Conifer swamp |

Also indicates the areas of "Remaining merchantable timber" by stippled overprint

CUNNINGHAM, R. N. and others

1941 In Cunningham, R. N., and H. G. White, *Forest resources of*

the Upper Peninsula of Michigan. U. S. Dept. Agr., Misc. Publ. no. 429, inserted at back.

- 1941 "DISTRIBUTION OF FORESTS IN THE LOWER PENINSULA OF MICHIGAN (NORTH PART) [NORTH OF LATITUDE 44° 10' NORTH]"
in color [1:253,400]

LEGEND

1. Northern hardwoods. Upland forest of sugar maple, yellow birch, elm, beech, basswood—little hemlock or white pine. Trees mainly 10 inches or less in diameter. There are only a few small merchantable stands with trees from 10 to 30 inches in diameter
2. Mixed hardwoods and softwoods. Balsam fir, white cedar, spruce, aspen and paper birch on uplands with mixture of elm, soft maple, yellow birch, balm of Gilead, and black ash on lowlands. Trees mainly 10 inches or less in diameter
3. Pine. Jack pine, white pine and red pine. Predominantly young growth—10 inches or less in diameter
4. Conifer swamps. Balsam fir, white cedar, black spruce and tamarack in deep peat swamps. Trees mainly 8 inches or less in diameter
5. Aspen brush. Aspen, paper birch, pin cherry, dunes, and deforested lands covered with brush, ferns, or grass—upland and lowlands. Trees mainly 8 inches or less in diameter
6. Agricultural land. Open or partially cleared areas occupied by farms or industrial developments. Includes many scattered patches of woods, 10 to 100 acres in extent
7. Oak. Northern pin, northern red, black and white oaks, often some jack pine and red pine. Many stands poorly stocked and of poor form. Trees mainly 10 inches or less in diameter

UNITED STATES. *Forest Service*

1941 Saint Paul, Minnesota, Lake States Forest Experiment Station.

- [1941] "BIG BAY BOG, BEAR LAKE, MANISTEE COUNTY, MICHIGAN"
black and white [1:15,000]

LEGEND

- | | |
|--|---|
| 1. <i>Chamaedaphne</i> , alder, rose | 6. <i>Chamaedaphne</i> , spruce, tamarack |
| 2. <i>Chamaedaphne</i> scrub | 7. <i>Chamaedaphne</i> , pure stand |
| 3. Tamarack, spruce, pine | 8. Upland beech, maple, hemlock, pine |
| 4. Spruce, tamarack, <i>Chamaedaphne</i> | a. Virgin—none shown |
| 5. <i>Chamaedaphne</i> , dead tamarack | b. Second growth |

OLSON, IRVING E. W.

1944 "Ecological studies of Pierport, Bear Lake, and Edgewater bogs in Michigan." *Papers Michigan Acad. Sci., Arts, and Lett.*, vol. 29 (1943), p. 42.

- [1941] "EDGEWATER BOG, BENZIE COUNTY, MICHIGAN"
black and white [1:2400]

LEGEND

1. *Chamaedaphne*, pine, some spruce and tamarack
2. *Chamaedaphne*, spruce, some tamarack and pine
3. *Chamaedaphne* scrub, few spruce and tamarack
4. High bog shrubs
5. Pine-oak upland

OLSON, IRVING E. W.

1944 "Ecological studies of Pierport, Bear Lake, and Edgewater bogs in Michigan." *Papers Michigan Acad. Sci., Arts, and Lett.*, vol. 29 (1943), p. 47.

- 1946 "ORIGINAL FOREST OF MICHIGAN"
black and white 1:2,500,000

LEGEND

1. Mixed hardwoods and conifers
2. Pine flats (hemlock, spruce, fir, cedar and white pine)
3. Pine plains (jack, Norway, and white pines)
4. Marsh and wet prairie
5. Prairie
6. Wet and dry land mixed forest (rugged land)
7. Swamp (cedar, balsam, tamarack)

MARSCHNER, F. J. (*redrawn by* A. D. PEREJDA)

1946 Detroit, Wayne University Press.

- 1947 "TYPE MAP OF MARQUETTE COUNTY, MICHIGAN"
black and white [1:713,000]

LEGEND

- | | |
|------------------------------------|----------------------|
| 1. Northern hardwoods saw timber | 5. Conifer swamps |
| 2. Northern hardwoods young growth | 6. Aspen-brush |
| 3. Mixed hardwoods and softwoods | 7. Agricultural land |
| 4. Pine | 8. Municipal areas |

CHASE, CLARENCE D.

1948 *Timber resources of Marquette County, Michigan*. Lansing, Michigan Dept. Conserv. in cooperation with U.S. Forest Serv., Michigan State College, Univ. Michigan, and Michigan College of Mining and Technol., Michigan Forest Surv. [Michigan Timber Resource Rept. no. 1], p. [5].

- 1947 "GENERALIZED FOREST COVER TYPES, IRON COUNTY, MICHIGAN"
black and white [1:390,000]

LEGEND

- | | |
|------------------------------------|----------------|
| 1. Northern hardwoods sawtimber | 4. Spruce-fir |
| 2. Northern hardwoods young growth | 5. Aspen-birch |
| 3. Northern pine | 6. Non-forest |

CHASE, CLARENCE D. and ARTHUR G. HORN

1952 *Timber resources of Dickinson and Iron Counties, Michigan*. Lansing, Michigan Dept. Conserv. in cooperation with Lake States Forest Exp. Sta., Michigan College of Mining and Technol., North Central Region, U.S. Forest Serv., Michigan State College, and Univ. Michigan, Michigan Forest Surv. [Michigan Timber Resource Rept. no. 4], p. 20.

1947 "GENERALIZED FOREST COVER TYPES, DICKINSON COUNTY, MICHIGAN"
black and white [1:308,000]

LEGEND

- | | |
|------------------------------------|----------------|
| 1. Northern hardwoods sawtimber | 4. Spruce-fir |
| 2. Northern hardwoods young growth | 5. Aspen-birch |
| 3. Northern pine | 6. Non-forest |

CHASE, CLARENCE D. and ARTHUR G. HORN

1952 *Timber resources of Dickinson and Iron Counties, Michigan*. Lansing, Michigan Dept. Conserv. in cooperation with Lake States Forest Exp. Sta., Michigan College of Mining and Technol., North Central Region, U.S. Forest Serv., Michigan State College, and Univ. Michigan, Michigan Forest Surv. [Michigan Timber Resources Rept. no. 4], p. 3.

[1947] "SKETCH MAP OF LAKE MARGIN SHOWING ZONATION OF FEN COMMUNITIES ON SUB-AERIAL PEAT"
black and white [1:200]

LEGEND

- | | |
|--------------------------------|------------------------------------|
| 1. <i>Betula</i> shrub fen | 3. Herb fen |
| 2. <i>Potentilla</i> shrub fen | 4. [<i>Eleocharis-Chara</i> zone] |

Also shows position of specimens of *Larix* and *Rhus*

CAIN, STANLEY A. and JOHN V. SLATER

1948 "The vegetation of Sodon Lake [Oakland County, Michigan]." *American Midland Naturalist*, vol. 40, p. 748.

[1947] "SKETCH MAP OF LAKE MARGIN SHOWING A WATER LILY COLONY ON THE CHARA 'SHELF,' AND A MIXED SHRUB FEN BORDERING THE LAKE WITHOUT AN INTERMEDIATE HERB FEN"
black and white [1:200]

LEGEND

- | | |
|------------------|--|
| 1. <i>Chara</i> | 4. [Forest of <i>Acer</i> , <i>Larix</i> , <i>Rhus</i> ,
<i>Cornus</i> , and <i>Ulmus</i>] |
| 2. <i>Nuphar</i> | |
| 3. Shrub fen | |

CAIN, STANLEY A. and JOHN V. SLATER

1948 "The vegetation of Sodon Lake [Oakland County, Michigan]." *American Midland Naturalist*, vol. 40, p. 751.

- [1947] "SKETCH MAP OF LAKE MARGIN SHOWING 'ISLANDS' IN THE ELEOCHARIS-CHARA ZONE, AND INVASION OF THE HERB FEN BY TREES AND SHRUBS"
black and white [1:180]

LEGEND

1. [*Eleocharis-Chara* zone] 2. Herb fen

Also shows position of trees and shrubs

CAIN, STANLEY A. and JOHN V. SLATER

1948 "The vegetation of Sodon Lake [Oakland County, Michigan]." *American Midland Naturalist*, vol. 40, p. 747.

- 1948 "DISTRIBUTION OF WOODLANDS, 1948 [SOUTHWEST SECTION, LOWER PENINSULA]"
black and white [1:1,400,000]

LEGEND

1. Lowland hardwoods 3. Oak
2. Northern hardwoods 4. Farm & municipal

The percentage of the area covered by each of the above types is shown by patterned symbols.

CHASE, CLARENCE D. and ARTHUR G. HORN

1950 *Timber resources, southwestern section, Lower Peninsula, Michigan, 1950*. Lansing, Michigan Dept. Conserv. in cooperation with U.S. Forest Serv., Michigan State College, Univ. Michigan, and Michigan College of Mining and Technol., Michigan Forest Surv. [Michigan Timber Resource Rept. no 2], p. [2].

- 1948 "GENERALIZED FOREST COVER TYPES, BARAGA COUNTY, MICHIGAN"
black and white [1:317,000]

LEGEND

1. Northern hardwoods sawtimber 4. Spruce-fir
2. Northern hardwoods young 5. Aspen-birch
growth 6. Non-forest
3. Northern pine

CHASE, CLARENCE D. and ARTHUR G. HORN

1951 *Timber resources of Baraga County, Michigan*. Lansing, Michigan Dept. Conserv. in cooperation with Lake States Forest Exp. Sta., Michigan College of Mining and Technol., North Central Region of U.S. Forest Serv., Michigan State College, and Univ. Michigan, Michigan Forest Surv. [Michigan Timber Resource Rept. no. 3], preceding p. 1.

- 1949 "DISTRIBUTION OF WOODLANDS, MUSKEGON-SAGINAW SECTION, LOWER PENINSULA, MICHIGAN"
black and white [1:1,300,000]

LEGEND

- | | |
|-----------------------|---------------------|
| 1. Northern hardwoods | 4. Aspen |
| 2. Lowland hardwoods | 5. Farm & municipal |
| 3. Oak | |

CHASE, CLARENCE D.

1953 *Timber resources, of the Muskegon-Saginaw section, Lower Peninsula, Michigan*. Lansing, Michigan Dept. Conserv., in cooperation with Lake States Forest Exp. Sta., North Central Region of U.S. Forest Serv., Michigan College of Mining and Technol., Michigan State College, and Univ. Michigan, Michigan Forest Surv. [Michigan Timber Resource Rept. no. 5], p. 4.

- 1949 "GENERALIZED FOREST COVER TYPES, GOGEBIC AND ONTONAGAN COUNTIES"
black and white [1:700,000]

LEGEND

- | | |
|-----------------------|---------------|
| 1. Northern hardwoods | 5. Spruce-fir |
| 2. Aspen | 6. Farm |
| 3. Lowland hardwoods | 7. Municipal |
| 4. Pine | |

CHASE, CLARENCE D. and ARTHUR G. HORN

1957 *Timber resources, Gogebic and Ontonagan Counties, Michigan*. Lansing, Michigan Dept. Conserv., Michigan Forest Surv. [Michigan Timber Resource Rept. no. 9], p. 3.

- 1949 "GENERALIZED FOREST COVER TYPES, HOUGHTON AND KEWEENAW COUNTIES, MICHIGAN"
black and white 1:633,600

LEGEND

- | | |
|-----------------------|---------------|
| 1. Northern hardwoods | 5. Spruce-fir |
| 2. Aspen | 6. Farm |
| 3. Lowland hardwoods | 7. Municipal |
| 4. Pine | |

CHASE, CLARENCE D. and ARTHUR G. HORN

1955 *Timber resources of Houghton and Keweenaw Counties, Michigan*. Lansing, Michigan Dept. Conserv. and Lake States Forest Exp. Sta., Michigan Forest Survey [Michigan Timber Resource Rept. no. 7], p. 3.

- 1950 "DISTRIBUTION OF WOODLANDS, CADILLAC BLOCK, MICHIGAN"
black and white [1:792,000]

LEGEND

- | | |
|-----------------------|---------------------|
| 1. Pine | 5. Oak |
| 2. Spruce-fir | 6. Aspen |
| 3. Northern hardwoods | 7. Farm & municipal |
| 4. Lowland hardwoods | |

CHASE, CLARENCE D. and ARTHUR G. HORN

1955 *Timber resources, Cadillac Block, Lower Peninsula, Michigan*.

Lansing, Michigan Dept. Conserv. and Lake States Forest Exp. Sta., Michigan Forest Survey [Michigan Timber Resource Rept. no. 6], p. 3.

- 1950 "VERTEILUNG DER FORMATIONEN IN EINEM TEIL DER SOGENANTEN OBEREN HALBINSEL DES STAATES MICHIGAN (UPPER PENINSULA OF MICHIGAN)"
in color 1:250,000

LEGEND

Eight colors representing eight physiognomic groupings

KÜCHLER, A. W.

1950 "Physiognomische Kartierung der Vegetation." *Petermanns Geogr. Mitteilungen*, 94. No. 1, Tafel 1.

- 1950 "OAKLAND COUNTY, MICHIGAN, HAVEN HILL SECTION, HIGHLAND RECREATION AREA, VEGETATIONAL MAP"
black and white [1:42,000; not 1:9000 as stated]

LEGEND

- | | |
|--------------------|---------------------|
| 1. Field | 6. Cedar swamp |
| 2. Beech-maple | 7. Tamarack bog |
| 3. Oak-hickory | 8. Black spruce bog |
| 4. Mixed hardwoods | 9. Marsh |
| 5. Swamp forest | |

THOMPSON, PAUL WOODARD

1951 "The Haven Hill ecology trail." *Cranbrook Inst. Sci., News Letter*, vol. 20, p. 75. Reprinted, 1953 [1:27,000, not 1:9,000 as stated], in his "Vegetation of Haven Hill, Michigan." *American Midland Naturalist*, vol. 50, p. 219.

- 1952 "GENERALIZED FOREST COVER TYPES, BALDWIN BLOCK, MICHIGAN"
black and white [1:809,000]

LEGEND

- | | |
|-----------------------|--------------------------|
| 1. Pine | 5. Oak |
| 2. Spruce-fir | 6. Aspen |
| 3. Northern hardwoods | 7. Non-commercial forest |
| 4. Lowland hardwoods | 8. Farm & municipal |

CHASE, CLARENCE D. and ARTHUR G. HORN

1956 *Timber resources, Baldwin Block, Lower Peninsula, Michigan.* Lansing, Michigan Dept. Conserv., Michigan Forest Surv. [Timber Resource Rept. no. 8], p. 3.

- 1952 "FARM WOODLAND STUDY AREA, UPPER PENINSULA EXPERIMENTAL FOREST, MARQUETTE, MICHIGAN"
black and white [1:3,960]

LEGEND

- | | |
|-----------------|---------------------------|
| 1. Ash-elm type | 2. Northern hardwood type |
|-----------------|---------------------------|

MICHIGAN

LONGWOOD, F. R.

1953 *Some aspects of managing second-growth woodlands in Upper Michigan.* Lake States Forest Exp. Sta., Sta. Paper no. 29, p. 3.

1953 "GENERALIZED FOREST COVER TYPES, GLADWIN BLOCK, MICHIGAN"
black and white [1:812,000]

LEGEND

- | | |
|-----------------------|--------------------------|
| 1. Pine | 6. Aspen |
| 2. Spruce-fir | 7. Farm |
| 3. Northern hardwoods | 8. Municipal forest |
| 4. Lowland hardwoods | 9. Non-commercial forest |
| 5. Oak | |

RAPP, DENNIS A., CLARENCE D. CHASE and ARTHUR G. HORN

1957 *Timber resources, Gladwin Block, Lower Peninsula, Michigan.* Lansing, Michigan Dept. Conserv., Michigan Forest Surv. [Michigan Timber Resource Rept. no. 10], p. 3.

1953 "APPEARANCE AND DISAPPEARANCE OF AQUATIC VEGETATION AT THE SURFACE [OF CRANE POND, EDWIN S. GEORGE RESERVE, PUTNAM TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN] DURING 1953 [ON FIVE MAPS, FOR JUNE 1, JUNE 14, JUNE 20 AND AUGUST 12, AUGUST 15 AND AUGUST 19, AUGUST 7 AND AUGUST 21]"
black and white [1:3,500, and larger]

LEGEND

- | | |
|-----------------------------------|--------------------------------|
| 1. Beds of <i>Nuphar advena</i> | 4. <i>Potamogeton foliosus</i> |
| 2. <i>Chara</i> | 5. Rivulariaceae algae |
| 3. <i>Ranunculus longirostris</i> | |

SEXTON, OWEN J.

1959 "Spatial and temporal movements of a population of the painted turtle, *Chrysemys picta marginata* (Agassiz)." *Ecological Monographs*, vol. 29, pp. 128, 129.

1953, 1955 "[AQUATIC COMMUNITIES OF] CRANE POND [EDWIN S. GEORGE RESERVE, PUTNAM TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN, ON TWO MAPS]"
blue and white [1:3,700]

LEGEND

- | | |
|------------------|-----------------|
| 1. <i>Typha</i> | 3. <i>Salix</i> |
| 2. <i>Nuphar</i> | 4. Fallen trees |

SEXTON, OWEN J.

1959 "Spatial and temporal movements of a population of the painted turtle, *Chrysemys picta marginata* (Agassiz)." *Ecological Monographs*, vol. 29, p. 126.

1954 "GENERALIZED FOREST COVER TYPES, MIO BLOCK, MICHIGAN"
black and white [1:660,000]

LEGEND

- | | |
|-----------------------|---------------------------|
| 1. Pine | 5. Aspen |
| 2. Spruce-fir | 6. Oak |
| 3. Northern hardwoods | 7. Non-commercial forests |
| 4. Lowland hardwoods | 8. Municipal |

QUINNEY, DEAN N., CLARENCE D. CHASE and ARTHUR G. HORN

1957 *Timber resources, Mio Block, Lower Peninsula, Michigan*. Lansing, Michigan Dept. Conserv., Michigan Forest Surv. [Michigan Timber Resource Rept. no. 13], p. 2.

- 1954 "AQUATIC VEGETATION DURING THE AESTIVAL SEASON OF 1954 [IN THE EAST AND WEST PORTIONS OF CRANE POND, EDWIN S. GEORGE RESERVE, PUTNAM TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN]"
black and white [1:2,600 and 1:2,890, west portion;
1:2,170, east portion]

LEGEND

- | | |
|------------------------------------|--------------------------------|
| 1. [Beds of <i>Nuphar advena</i>] | 4. <i>Potamogeton foliosus</i> |
| 2. <i>Chara</i> | 5. Rivulariaceae algae |
| 3. <i>Ranunculus longirostris</i> | |

SEXTON, OWEN J.

1959 "Spatial and temporal movements of a population of the painted turtle, *Chrysemys picta marginata* (Agassiz)." *Ecological Monographs*, vol. 29, pp. 130, 131.

- 1955 "MAJOR FOREST TYPES—MICHIGAN"
in color [1:3,100,000]

LEGEND

- | | |
|------------------------|---|
| 1. White-red-jack pine | 5. Maple-beech-birch |
| 2. Spruce-fir | 6. Aspen-birch |
| 3. Oak-hickory | 7. Nonforest (less than 5% forest land) |
| 4. Elm-ash-cottonwood | |

FINDELL, VIRGIL E. and others

1960 *Michigan's forest resources*. Lake States Forest Exp. Sta., Sta. Paper no. 82, inside back cover.

- 1955 "GENERALIZED COVER FOREST TYPES, NORTH TIP BLOCK, MICHIGAN"
black and white [1:932,000]

LEGEND

- | | |
|-----------------------|----------------------|
| 1. Northern hardwoods | 5. Oak |
| 2. Aspen | 6. Lowland hardwoods |
| 3. Pine | 7. Nonforest |
| 4. Spruce-fir | 8. Municipal |

QUINNEY, DEAN N., CLARENCE D. CHASE and ARTHUR G. HORN

1957 *Timber resources, North Tip Block, Lower Peninsula, Michigan*. Lansing, Michigan Dept. Conserv., Michigan Forest Surv. [Michigan Timber Resource Rept. no. 14], p. [3].

1955 "GENERALIZED FOREST COVER TYPES, NEWBERRY-DRUMMOND ISLAND BLOCK, UPPER PENINSULA MICHIGAN"
 black and white 1:740,000

LEGEND

- | | |
|---------------|-------------------------|
| 1. Spruce-fir | 6. Northern hardwoods |
| 2. Pine | 7. Lowland hardwoods |
| 3. Aspen | 8. Noncommercial forest |
| 4. Oak | 9. Municipal |
| 5. Nonforest | |

FINDELL, VIRGIL E., CLARENCE D. CHASE *and* ARTHUR G. HORN

1957 *Timber resources, Newberry-Drummond Island Block, Upper Peninsula, Michigan*. Lansing, Michigan Dept. Conserv., Michigan Forest Surv. [Michigan Timber Resource Rept. no. 11], p. [3].

[1956] "THE FOREST REGIONS OF MICHIGAN"
 black and white [1:7,700,000]

LEGEND

1. The northern forest belts of the upper and lower peninsulas
2. Transition forest
3. Oak-hickory forest of the central states

SPURR, STEPHEN H.

1956 "Michigan's forests over ten thousand years." *Michigan Alumnus Quart. Rev.*, vol. 62, p. 337.

1956 "GENERALIZED FOREST COVER TYPES, SOUTHEASTERN SECTION, LOWER PENINSULA, MICHIGAN"
 black and white [1:1,100,000]

LEGEND

- | | |
|----------------------|--------------|
| 1. Northern hardwood | 5. Oak |
| 2. Lowland hardwood | 6. Pine |
| 3. Spruce-fir | 7. Nonforest |
| 4. Aspen | |

ESSEX, BURTON L., CLARENCE D. CHASE *and* ARTHUR G. HORN

[1958] *Timber resources, southeastern block, Lower Peninsula, Michigan, 1955*. Lansing, Michigan Dept. Conserv., Michigan Forest Surv. [Michigan Timber Resource Rept. no. 15], p. 3.

1956 "GENERALIZED FOREST COVER TYPES, MENOMINEE-GRAND MARAIS BLOCK, UPPER PENINSULA, MICHIGAN"
 black and white [1:845,000]

LEGEND

- | | |
|-----------------------|-------------------------|
| 1. Northern hardwoods | 6. Oak |
| 2. Lowland hardwoods | 7. Noncommercial forest |
| 3. Spruce-fir | 8. Nonforest |
| 4. Aspen | 9. Municipal |
| 5. Pine | |

FINDELL, VIRGIL E., CLARENCE D. CHASE and ARTHUR G. HORN

1957 *Timber resources, Menominee-Grand Marais Block, Upper Peninsula, Michigan*. Lansing, Michigan Dept. Conserv., Michigan Forest Surv. [Michigan Timber Resource Rept. no. 12], p. 3.

[1956] "COVER TYPES [OF ECOLOGY ISLAND, CHIPPEWA COUNTY]"

black and white

[1:2,770]

LEGEND

1. Sand bar and sand beach, devoid of vegetation
2. Swale, principal species include: *Carex* spp., *Agrostis alba*, *Poa pratensis*, *Poa palustris*, *Trifolium hybridum*, *Lactuca ludoviciana*
3. Shoreline, principal species include: *Typha latifolia*, *Juncus* spp., *Phragmites communis*, *Phalaris arundinacea*, *Ammophila breviligulata*
4. *Trifolium hybridum*, occurs as nearly 100 percent cover
5. Open slopes, principal species include: *Cirsium arvense*, *Rumex patientia*, *Melilotus altissima*, *Taraxacum officinale*, *Solidago* spp., *Equisetum arvense*, *Fragaria virginiana*, *Poa* spp., *Agrostis alba*, *Phleum pratense*
6. Shrub, principal species include: *Salix discolor*, *Phragmites communis*, *Ammophila breviligulata*
7. Tree, principal species include: *Populus balsamifera*, *Populus tremuloides*, *Agrostis alba*, *Poa* spp., *Phragmites communis*

SKAU, C. M. and M. W. DAY

1959 "An ecological study of a man-made island." *American Midland Naturalist*, vol. 61, p. 110.

1956-1957 "BACKUS LAKE, T. 22 N., R. 2 W., ROSCOMMON COUNTY, MICHIGAN [COVER MAP OF PRE-DRAWDOWN VEGETATION]"

black and white

[1:24,000]

LEGEND

- | | |
|---------------|----------------------|
| 1. Sweet gale | 5. Cattail |
| 2. Burreed | 6. Floating-leaf |
| 3. Grass | 7. Lake (open water) |
| 4. Wild rice | |

KADLEC, JOHN A.

1962 "Effects of a drawdown on a waterfowl impoundment." *Ecology*, vol. 43, p. 274.

[1957] "FORESTS TODAY"

black and white

[1:5,300,000]

LEGEND

1. Agricultural and industrial areas
2. Aspen, highland or swamp brush, and open or nonregenerating areas
3. All hardwoods
4. Pine, spruce, balsam, tamarack, cedar

McINTIRE, G. S. and RUSSELL McKEE

1957 "100 years of Michigan forests." *Michigan Conservation*, vol. 26, no. 2, p. 7.

MICHIGAN

- 1959 "BACKUS LAKE, T. 22 N., R. 2 W., ROSCOMMON COUNTY, MICHIGAN
[COVER MAP OF POST-DRAWDOWN VEGETATION]"
black and white [1:24,000]

LEGEND

- | | |
|---------------|-----------------------|
| 1. Sweet gale | 6. Burreed-sedge |
| 2. Wild rice | 7. Cattail |
| 3. Grass | 8. Bullrush |
| 4. Burreed | 9. Floating-leaf |
| 5. Sedge | 10. Lake (open water) |

KADLEC, JOHN A.

1962 "Effects of a drawdown on a waterfowl impoundment."
Ecology, vol. 43, p. 275.

- 1963 "A GENERALIZED TYPE-MAP OF THE AGGREGATIONS OF AQUATIC VEGETATION"
black and white 1:115,000

LEGEND

- | | |
|--|----------------------|
| 1. Wild celery—Berchtold's
pondweed | 5. Muskgrass |
| 2. Sago pondweed | 6. Water-stargrass |
| 3. Waterweed | 7. Stubby wapato |
| 4. Berchtold's pondweed—water
milfoil | 8. Illinois pondweed |

HUNT, GEORGE S.

1963 "Wild celery in the lower Detroit River." *Ecology*, vol. 44, p.
363.

MINNESOTA

[1800] "MAJOR VEGETATION TYPES IN MINNESOTA AND ADJACENT AREAS IN PRE-SETTLEMENT TIME [INCLUDING PORTIONS OF WISCONSIN, MANITOBA, AND ONTARIO]"

black and white

[1:8,500,000]

LEGEND

- | | |
|---|----------------------------|
| 1. Boreal forest region | 3. Deciduous forest region |
| 2. Great Lakes-St. Lawrence forest region | 4. Prairie |

FRIES, MAGNUS

1962 "Pollen profiles of late Pleistocene and recent sediments from Weber Lake, northeastern Minnesota." *Ecology*, vol. 43, p. [295].

[1850] "ORIGINAL VEGETATION IN SOUTHEASTERN MINNESOTA . . ."

black and white

[1:800,000]

LEGEND

- A. Grassland
1. Wet prairie, marshes and sloughs [flags, reeds, rushes, occasional willow and alder brush]
 2. Prairie
- B. Hardwood forest
3. Big woods [oak, elm, ash, maple, hornbeam, hickory, and others]
 4. River-bottom forest [cottonwood, box elder, soft maple, aspen, and others]
 5. Aspen-birch "hardwoods" [young growth, with elm, maple, oak, and the like as associated species]
- C. Brush land
6. Brush prairie [grass with brush of aspen, oak, and hazel]
 7. Aspen-oak land [generally dense but small aspen, with scattered oak, elm, ash, and basswood]
 8. Oak openings and barrens [scattered trees and groves of scrub oak, with some brush and thickets]

JOHNSON, HILDEGARD BINDER

1957 "Rational and ecological aspects of the quarter section, an example from Minnesota." *Geographical Review*, vol. 47, p. 333.

1881 "MAP OF MINNESOTA SHOWING THE DISTRIBUTION OF FORESTS, WITH SPECIAL REFERENCE TO THE LUMBER INDUSTRY"

in color

[1:3,000,000]

LEGEND

- | | |
|--------------|------------------|
| 1. Hard wood | 2. Standing pine |
|--------------|------------------|

- | | |
|----------------------------|---|
| 3. Pine and hard wood | 7. Tamarack and cedar swamps,
with small bodies of scattered
pine |
| 4. Cut pine | |
| 5. Cut pine, and hard wood | |
| 6. Birch lands | |

SARGENT, CHARLES SPRAGUE

1884 "Report on the forests of North America (exclusive of Mexico)." U. S. Dept. Interior, Census Office, *Tenth Census of the U. S.*, vol. 9, facing p. 558.

- [1883] "MAP SHOWING AREAS OF FOREST AND PRAIRIE, AND APPROXIMATE LIMITS OF SOME OF THE PRINCIPAL TREES AND SHRUBS"

green, black and white [1:2,700,000]

LEGEND

1. Areas covered by forest
2. Prairie

Also indicates, "southwestern limits (approximately) of pines, black spruce and balsam fir," "southern limit of white spruce," "southern limit of arbor vitae and mountain ash," "southern limit of tamarack," "southern limit of blueberries, cranberries, aromatic wintergreen, leather-leaf, Labrador tea, *Clintonia*, dwarf cornel, and balsam poplar," "northern limit of shell-bark hickory," and "northern limit of black walnut, red mulberry, and Kentucky coffee-tree."

UPHAM, WARREN

1884 "Catalogue of the flora of Minnesota." *Geol. and Nat. Hist. Surv. Minnesota, Ann. Rept.* no. 12 (1883), pt. 6, inserted between pp. 16-17.

- [1895] "MAP OF THE FORESTS OF MINNESOTA TO ACCOMPANY THE ANNUAL REPORT OF THE CHIEF FIRE WARDEN"

in color [1:2,700,000]

LEGEND

- | | |
|--|--------------------------------|
| 1. Originally hardwood; a few prairies | 3. Heavy pine and mixed timber |
| 2. Pine and mixed timber | 4. Non-typed and non-forest |

ANON.

1896 In Andrews, C. C., *First annual report of the chief fire warden of Minnesota, for the year 1895*. St. Paul, Pioneer Press Co., frontispiece. Reprinted, 1940 black and white, 1:8,250,000, in Wilson, Leonard S., "Some notes on the growth of population in Minnesota." *Geographical Review*, vol. 30, p 662.

- [1909] "VIRGIN FOREST COVER, FOREST EXPERIMENT STATION, UNIVERSITY OF MINNESOTA, CLOQUET, MINN."

black and white [1:46,300]

LEGEND

- | | |
|----------------|----------|
| 1. Norway pine | 3. Swamp |
| 2. White pine | |

CORSON, C. W., J. H. ALLISON *and* E. G. CHEYNEY1929 "Factors controlling forest types on the Cloquet Forest, Minnesota." *Ecology*, vol. 10, p. 122.

- [1912] "MAP OF MINNESOTA SHOWING THE NATURAL DISTRIBUTION OF FOREST AND PRAIRIE"
black and white [1:4,800,000]

LEGEND

- | | |
|----------------------|------------|
| 1. Coniferous forest | 3. Prairie |
| 2. Deciduous forest | |

CLEMENTS, FREDERIC E., C. OTTO ROSENDAHL *and* FREDERIC K. BUTTERS1912 *Minnesota trees and shrubs*. Minneapolis, Univ. Minnesota, Rept. Bot. Surv. no. 9, p. 20.

- [1915] "MAP OF MINNESOTA SHOWING DISTRIBUTION OF FOREST AND PRAIRIE"
black and white [1:4,300,000]

LEGEND

- | | |
|---------------------|---|
| 1. Prairie | 3. Coniferous and deciduous
[forest] |
| 2. Deciduous forest | |

Also indicates the "southern limit of pine forest." Based on Upham [1883]

LEVERETT, FRANK

1915 *Surface formations and agricultural conditions of northwestern Minnesota*. Minnesota Geol. Surv., Bull. no. 12, p. 39. Reprinted, 1916 in Bergman, H. F., and Harvey Stallard, "The development of climax formations in northern Minnesota." *Minnesota Bot. Stud.*, Vol. 4, p. 335; 1916 in Cheyney, E. G., "The development of the lumber industry in Minnesota." *Journal of Geography*, vol. 14, p. 191; 1917 in Leverett, Frank, and Frederick W. Sardeson, *Surface formations and agricultural conditions of northeastern Minnesota*. Minnesota Geol. Surv., Bull. no. 13, p. 21; 1919 in Soper K., *The peat deposits of Minnesota*. Minnesota Geol. Surv., Bull. no. 16, p. [62]; 1925 in Schwartz, G. M., *A guidebook to Minnesota trunk highway no. 1*. Minnesota Geol. Surv., Bull. no. 20, p. [107]; 1929 in Stallard, H., "Secondary succession in the climax forest formations of northern Minnesota." *Ecology*, vol. 10, p. 477.

- [1918] "MAP SHOWING FOREST AREAS OF MINNESOTA"
black and white [1:5,900,000]

LEGEND

1. Prairie, trees only along river valleys and lake shores
2. Region of coniferous forests with scattered areas of deciduous forest
3. Region of continuous hardwood forests
4. Region of groves, mostly oak and poplars

ROSENDAHL, CARL OTTO *and* FREDERIC K. BUTTERS1918 "On the occurrence of *Pinus banksiana* in southeastern Minne-

sota." *Plant World*, vol. 21, p. 111. Reprinted, 1924 [1:5,200,000], in Butters, Frederic K., and Carl Otto Rosendahl, *The distribution of the white oak in Minnesota*. Res. Publ. Univ. Minnesota, Studies in Biol. Sci., no. 5, p. 200; reprinted in simplified form, 1926 [1:5,400,000], in Rosendahl, Carl Otto, "Minnesota." In Shelford, Victor E. (ed.), *Naturalist's guide to the Americas*. Baltimore, Williams & Wilkins Co., facing p. 267.

[1928] "DRAINAGE SYSTEM AND FOREST COVER, T. 156 N., R. 31 W., BELTRAMI Co."

black and white

[1:96,000]

LEGEND

- | | |
|-----------------|---------------------|
| 1. Open swamp | 4. Burned timber |
| 2. Black spruce | 5. High land island |
| 3. Tamarack | |

AVERELL, JAMES L. and PAUL C. MCGREW

1929 *The reaction of swamp forests to drainage in Northern Minnesota*. [Minneapolis], Department of Drainage and Waters; Department of Forestry and Fire Prevention; Division of Forestry and Division of Agricultural Engineering, University of Minnesota; Bureau of Public Roads, U.S. Department of Agriculture; and Lake-States Forest Experiment Station cooperating, p. 29.

[1928] "PORTION OF ITASCA PARK, MINN."

black and white

[incalculable]

LEGEND

- | | |
|------------------------------------|--|
| 1. Mixed hardwoods | 5. White & Norway pine |
| 2. Floating-bog bay in Lake Itasca | 6. Second growth aspen & birch with scattered pine |
| 3. Tamarack swamp | |
| 4. Jack Pine | |

Boundaries between types are not indicated, except for tamarack swamp.

GRAHAM, SAMUEL A.

1930 "Ornithology and forest entomology." *Papers Michigan Acad. Sci., Arts, and Lett.*, vol. 11 (1929), p. 391.

[1929] "MAP OF MINNESOTA"

black and white

[1:3,300,000]

LEGEND

- | | |
|-----------------------------|------------------------------------|
| 1. Original hardwood forest | 3. Present region of virgin forest |
| 2. Original pine forest | |

CHEYNEY, E. G. and O. R. LEVIN

1929 *Forestry in Minnesota*. St. Paul, Commissioner of Forestry and Fire Prevention, co-operating with the Division of Forestry, University of Minnesota, pp. 30-31. Reprinted, 1937 in: *Forestry in*

Minnesota, forest fire protection. Revised by A. E. Pimley. St. Paul, State of Minnesota, Department of Conservation, pp. 10-11.

[1929] "PRESENT FOREST COVER"

black and white

[1:46,300]

LEGEND

- | | |
|----------------|----------------|
| 1. White pine | 4. Aspen |
| 2. Norway pine | 5. Brush, etc. |
| 3. Jack pine | 6. Swamp |

CORSON, C. W., J. H. ALLISON and E. G. CHEYNEY

1929 "Factors controlling forest types on the Cloquet Forest, Minnesota." *Ecology*, vol. 10, p. 123.

[1936] "PRINCIPAL PLANT FORMATIONS OF MINNESOTA, AFTER UPHAM (1884)"

black and white

[1:5,000,000]

LEGEND

1. Region characterized by pine subclimax communities. Climax types are sugar maple-basswood in the south and western parts, spruce-fir-birch (boreal conifer forest) in the extreme northeastern portion, and fir-basswood in the intermediate region
2. Region characterized by pure deciduous forest, with subclimax communities of oak and aspen, and sugar maple-basswood as climax
3. Region of tall-grass prairie

DAUBENMIRE, REXFORD F.

1936 "The 'Big Woods' of Minnesota: its structure, and relation to climate, fire, and soils." *Ecological Monographs*, vol. 6, p. 236.

1939-1940 "DISTRIBUTION OF FORESTS IN NORTHERN MINNESOTA"

in color

[1:253,440]

LEGEND

1. Hardwoods (On upland sites: sugar maple, basswood, elm and red oak. On lowlands and river terraces: black ash, American elm, poplars and soft maples. An increasing proportion of red oak with some burr oak and white oak occurs along the southern margin.)
2. Mixed hardwoods and softwoods (spruce-fir type) (Upland forest or swamp margin occupied by spruce, balsam fir, white cedar, aspen and paper birch, with smaller amounts of elm, soft maple, yellow birch, balm of gilead and black ash)
3. Pine (jack pine, white pine and red pine)
4. Conifer swamps (black spruce, white cedar, tamarack or balsam fir in deep peat swamps)
5. Aspen-brush (aspen, paper birch, scrub oak or pin cherry and deforested lands, covered with brush, ferns or grass—upland and lowland)
6. Agricultural areas

UNITED STATES. *Forest Service*

1939-1940 Lake States Forest Exp. Sta., in 2 sheets (East half, 1939 and West half, 1940).

MINNESOTA

[1940] "VEGETATION"
black and white 1:8,250,000

LEGEND

- | | |
|--------------|---------------|
| 1. Prairie | 3. Coniferous |
| 2. Broadleaf | |

WILSON, LEONARD S.

1940 "Some notes on the growth of population in Minnesota." *Geographical Review*, vol. 30, p. 662. (After: First Ann. Rept. State Forester, St. Paul, 1911.)

1947 "CHIPPEWA NATIONAL FOREST"
black and white 1:31,680

LEGEND

- | | |
|---------------------------|-------------------|
| 1. Aspen-paper birch | 14. Grassland |
| 2. Offsite aspen | 15. Sand dunes |
| 3. Mixed conifer swamp | 16. Cropland |
| 4. Cottonwood | 17. Pasture land |
| 5. Hemlock | 18. Upland brush |
| 6. Oak | 19. Lowland brush |
| 7. Scrub oak | 20. Muskeg |
| 8. Northern hardwoods | 21. White cedar |
| 9. Swamp hardwoods | 22. Jack pine |
| 10. Plantation | 23. Spruce-fir |
| 11. Experimental planting | 24. Black spruce |
| 12. Non-productive swamp | 25. Red pine |
| 13. Tamarack | 26. White pine |

UNITED STATES. *Forest Service*

1952 United States Forest Service, Office of North Central Region, Milwaukee, Wis. (Timber Survey of Cass County, Minn.)

[1947] "SKETCH-MAP OF TWIN LAKES LOCALITY, ITASCA PARK"
black and white [1:10,000]

LEGEND

- | | |
|---------------|--|
| 1. Open water | 2. Pioneer mat [<i>Carex lasiocarpa</i>] |
|---------------|--|

CONWAY, VERONA M.

1949 "The bogs of central Minnesota." *Ecological Monographs*, vol. 19, p. 177.

[1947] "MAP OF PLOT 2, CENTERVILLE, MINN., SHOWING GENERAL VEGETATION TYPES"
black and white [1:3,000]

LEGEND

- | | |
|---|---------------------|
| 1. Marshy area, herbaceous veg. | 4. Dry meadow |
| 2. Marshy area, herbaceous and woody veg. | 5. Wooded upland |
| 3. Moist meadow | 6. Transition zone |
| | 7. Cultivated field |

QUIMBY, DON C.

1951 "The life history and ecology of the jumping mouse, *Zapus hudsonius*." *Ecological Monographs*. vol. 21, p. 77.

- [1948] "MERCHANTABLE TIMBER AREAS IN CROW WING COUNTY"
black and white [1:31,700]

LEGEND

- | | |
|----------|-------------------------------|
| 1. Pine | 3. Swp. con. [Swamp conifers] |
| 2. Aspen | 4. Hdw. [Hardwoods] |

SANDBERG, LYNN and ARTHUR G. HORN

[1948] *The forest resource of Crow Wing County*. St. Paul, Minnesota, Office of Iron Range Resources and Rehabilitation, inserted at back.

- 1949 "MERCHANTABLE TIMBER AREAS IN CLEARWATER COUNTY"
black and white [1:41,800]

LEGEND

- | | |
|-------------------|--------------------|
| 1. All pines | 3. Aspen |
| 2. Swamp conifers | 4. Other hardwoods |

SANDBERG, LYNN, ARTHUR G. HORN and PAUL C. GUILKEY

1949 *The forest resource of Clearwater County*. St. Paul, Minnesota, Office of Iron Range Resources and Rehabilitation, inserted at back.

- [1952] "FOREST MAP OF MINNESOTA"
black and white [1:5,000,000]

LEGEND

- | | |
|-----------------------------|------------------------------|
| 1. Original hardwood forest | 2. Original evergreen forest |
|-----------------------------|------------------------------|

ANON.

1952 *Trees of Minnesota, how to know them*. Fourth rev. ed., St. Paul, Minnesota, Dept. Conserv., p. 3.

- 1953 "MAJOR FOREST TYPES—MINNESOTA"
in color [1:3,700,000]

LEGEND

- | | |
|------------------------|-----------------------|
| 1. White-red-jack pine | 4. Elm-ash-cottonwood |
| 2. Spruce-fir | 5. Maple-birch |
| 3. Oak-hickory | 6. Nonforest |

CUNNINGHAM, R. N., ARTHUR G. HORN and D. N. QUINNEY

1958 *Minnesota's forest resources*. U. S. Dept. Agr., Forest Resource Rept. no. 13, inserted at back.

- [1957] "VEGETATION MAP OF NORTHERN MINNESOTA"
black and white [1:8,180,000]

LEGEND

- | | |
|---------------------|-------------------|
| 1. Conifer region | 3. Prairie region |
| 2. Deciduous forest | |

BUELL, MURRAY F. and WILLIAM A. NIERING

1957 "Fir-spruce-birch forest in northern Minnesota." *Ecology*, vol. 38, p. 603.

[1957] "GEOGRAPHIC OCCURRENCE OF THE MAJOR PLANT COMMUNITIES AT LINDFORD [KOOCHICHING COUNTY, MINNESOTA]"

black and white

[1:63,000]

LEGEND

- | | |
|-------------------------------------|--|
| 1. Muskeg | 4. <i>Sphagnum</i> -black spruce-leather-leaf muskeg |
| 2. Black spruce-feather moss forest | 5. Tamarack |
| 3. Black spruce-alder-herb forest | 6. Grasses and sedges |

HEINSELMAN, MIRON L.

1963 "Forest sites, bog processes, and peatland types in the Glacial Lake Agassiz region, Minnesota." *Ecological Monographs*, vol. 33, p. 348.

MISSISSIPPI

- 1881 "MAP OF MISSISSIPPI SHOWING THE DISTRIBUTION OF THE PINE FORESTS,
WITH SPECIAL REFERENCE TO THE LUMBER INDUSTRY"
in color [1:2,600,000]

LEGEND

1. Short leaved or yellow pine (*Pinus mitis*)
2. Short leaved or yellow pine (*Pinus mitis*) mixed with hardwoods
3. Long leaved pine (*Pinus palustris*)
4. Long leaved pine (*Pinus palustris*) with hardwoods in about equal proportion
5. Region from which merchantable pine has been cut
6. Cypress swamps

SARGENT, CHARLES SPRAGUE

1884 "Report on the forests of North America (exclusive of Mexico)." U. S. Dept. Interior, Census Office, *Tenth Census of the U. S.*, vol. 9, facing p. 530.

- 1908 "FOREST CONDITIONS OF MISSISSIPPI, SOUTHWESTERN COUNTIES"
in color [1:490,000]

LEGEND

- | | |
|----------------------------|---|
| 1. Pure longleaf type | 5. River bottoms |
| 2. Longleaf hills | 6. Area containing the largest
bodies of pine timber |
| 3. Hardwood hills | |
| 4. Mississippi flood plain | |

HOLMES, JOHN SIMCOX and J. H. FOSTER

1908 *A study of forest conditions of southwestern Mississippi*, by the United States Forest Service in cooperation with the Mississippi State Geological Survey. Mississippi State Geol. Surv., Bull. no. 5, inserted at back.

- 1909 "MISSISSIPPI, FOREST REGIONS"
black and white [1:3,100,000]

LEGEND

- | | |
|------------------------------|---------------------------------|
| 1. North eastern hill region | 5. North central plateau region |
| 2. Black Prairie region | 6. South central region |
| 3. Pontotoc Ridge region | 7. Yazoo Delta region |
| 4. Flatwoods region | 8. Longleaf pine region |

DUNSTON, C. E.

1910 *Preliminary examination of the forest conditions of Mississippi*. Mississippi State Geol. Surv., Bull. no. 7, p. 6.

[1913] "FOREST REGIONS OF MISSISSIPPI"
black and white [1:4,900,000]

LEGEND

- | | |
|------------------------------|---------------------------|
| 1. Northeastern hills | 5. The yellow loam region |
| 2. The black prairie belt | 6. The Yazoo delta |
| 3. The red hills | 7. Post oak flatwoods |
| 4. The long-leaf pine region | |

HARPER, ROLAND M.

1913 "The forest regions of Mississippi in relation to the lumber industry, a geographical and statistical study." *The Southern Lumberman*, vol. 70, p. 103.

[1931] "THE GENERAL PHYSIOGRAPHIC AND VEGETATIONAL FEATURES OF CAT ISLAND"
black and white [1:67,000]

LEGEND

- | | |
|--------------------|--------------------|
| 1. Sand dunes | 3. Marsh grassland |
| 2. Pine-oak forest | |

PENFOUND, WILLIAM T. and M. E. O'NEILL

1934 "The vegetation of Cat Island, Mississippi." *Ecology*, vol. 15, p. 4.

1934 "AREAS CHARACTERIZED BY THE MAJOR FOREST TYPES, STATE OF MISSISSIPPI"
in color [1:1,000,000]

LEGEND

- | | |
|------------------------------|-----------------------------|
| 1. Longleaf-slash | 6. Oaks-mixed hdwds. |
| 2. Shortleaf-hardwood | 7. Loblolly-hdwds. |
| 3. Shortleaf-loblolly hdwds. | 8. Red gum-mixed hdwds. |
| 4. Mixed upland hdwds. | 9. Overcup oak-bitter pecan |
| 5. Mixed bottomland hdwds. | 10. Marsh or prairie |

UNITED STATES. *Forest Service*

1934 Southern Forest Exp. Sta.

1938 "AREAS CHARACTERIZED BY THE MAJOR FOREST TYPES IN THE DELTA UNIT OF MISSISSIPPI"
black and white [1:1,400,000]

LEGEND

- | | |
|----------------------------|-----------------------------|
| 1. Red gum-mixed hardwoods | 3. Overcup oak-bitter pecan |
| 2. Oaks-mixed hardwoods | |

UNITED STATES. *Forest Service*

1942 In Stover, W. S., *Forest resources of the Delta section of Mississippi*. Southern Forest Exp. Sta., Forest Surv. Release no. 53, p. 7.

[1947] "FOREST ZONES IN CENTRAL MISSISSIPPI"
black and white [1:4,500,000]

LEGEND

- | | |
|----------------------------|--------------|
| 1. Shortleaf-loblolly pine | 3. Hardwoods |
| 2. Longleaf pine | |

JAMES, LEE M., WILLIAM P. HOFFMAN and MONTY A. PAYNE

1951 *Private forest land ownership and management in central Mississippi*. Mississippi State College, Agr. Exp. Sta., Tech. Bull. no. 33, p. 5.

[1949] "GENERALIZED FOREST TYPES IN MISSISSIPPI"

black and white

[1:2,800,000]

LEGEND

- | | |
|----------------------------|------------------------|
| 1. Loblolly-shortleaf pine | 3. Bottomland hardwood |
| 2. Longleaf-slash pine | 4. Upland hardwood |

Noted on map: "The cedar and upland hardwood-pine types are not concentrated enough to be shown."

DUERR, WILLIAM A.

1949 *Forest statistics for Mississippi*. Southern Forest Exp. Sta., Forest Surv., Release no. 59, p. 6. Reprinted, 1951 in James, Lee M., *Mississippi's forest resources and industries*. U. S. Dept. Agr., Forest Resource Rept. no. 4, p. 14; also [1951] in color, [1:3,300,000], in Legett, Albert A., *Your timber and your challenge*. Jackson, Mississippi Forest Service, unnumbered publ., p. 3.

1951 "GENERALIZED FOREST TYPES IN MISSISSIPPI"

black and white

1:2,700,000

LEGEND

- | | |
|----------------------------|------------------------|
| 1. Loblolly-shortleaf pine | 3. Bottomland hardwood |
| 2. Longleaf-slash pine | 4. Upland hardwood |

JAMES, LEE M.

1951 *Mississippi's Forest Resources and Industries*. Washington, D. C., U. S. Dept. of Agriculture, Forest Resource Report no. 4, p. 14. Reprinted 1952 [1:3,300,000] in Legett, Albert A., *Your timber and your challenge*. Jackson, Miss., Mississippi Forest Service, p. 3.

[1951] "FOREST ZONES IN NORTHEAST MISSISSIPPI"

black and white

[1:1,300,000]

LEGEND

- | | |
|----------------------------|------------------------|
| 1. Shortleaf-loblolly pine | 3. Bottomland hardwood |
| 2. Upland hardwood | 4. Prairie |

JUDSON, GEORGE M. and GEORGE L. SWITZER

1952 *Timber products marketing in northeast Mississippi*. Mississippi State College, Agr. Exp. Sta., Bull. no. 494, p. 6.

[1958] "MAJOR FOREST TYPES IN MISSISSIPPI"

in color

[1:2,500,000]

LEGEND

1. Loblolly-shortleaf pine
2. Longleaf-slash pine
3. Oak-pine
4. Oak-hickory

5. Oak-gum-cypress
6. Nontyped; less than 10 percent forest

ANON.

1958 *Mississippi forests*. Southern Forest Exp. Sta., Forest Surv. Release no. 81, p. 5.

MISSOURI

- [1820] "DISTRIBUTION OF MAJOR VEGETATION TYPES BASED ON SURVEYS IN CLARK COUNTY"
black and white [1:380,000]

LEGEND

- | | |
|----------------|------------|
| 1. Oak-hickory | 3. Barrens |
| 2. Prairie | |

HOWELL, D. L. and C. L. KUCERA

1956 "Composition of pre-settlement forests in three counties of Missouri." *Bull. Torrey Bot. Club*, vol. 83, p. 211.

- [1820] "DISTRIBUTION OF MAJOR VEGETATION TYPES BASED ON SURVEYS IN DADE COUNTY"
black and white [1:350,000]

LEGEND

- | | |
|----------------|------------|
| 1. Oak-hickory | 3. Barrens |
| 2. Prairie | |

HOWELL, D. L. and C. L. KUCERA

1956 "Composition of pre-settlement forests in three counties of Missouri." *Bull. Torrey Bot. Club*, vol. 83, p. 213.

- [1820] "DISTRIBUTION OF MAJOR VEGETATION TYPES BASED ON SURVEYS IN BOONE COUNTY"
black and white [1:320,000]

LEGEND

- | | |
|---------------------|------------|
| 1. Oak-maple-linden | 3. Prairie |
| 2. Oak-hickory | |

HOWELL, D. L. and C. L. KUCERA

1956 "Composition of pre-settlement forests in three counties of Missouri." *Bull. Torrey Bot. Club*, vol. 83, p. 212. (Prairie area outline reprinted, same scale, on p. 214.)

- 1907 "FOREST TYPES, OZARK REGION, MISSOURI"
in color [1:800,000]

LEGEND

- | | |
|--|---------------------|
| 1. Shortleaf pine and hardwoods
(mostly cut-over) | 3. Scrub oak |
| 2. Black oak and white oak | 4. Post oak flats |
| | 5. Alluvial bottoms |

LEGEND

1. [Pine]

QUIGLEY, KENNETH L.

1952 *Pine resources and markets in the Missouri Ozarks*. Jefferson City, Missouri State Div. Resources and Development, p. 3.

[1954] "MISSOURI FOREST TYPES"

black and white

[1:10,600,000]

LEGEND

1. Shortleaf pine

3. Bottomland hardwoods

2. Oak-hickory

ANON.

1954 *Missouri forest facts*, 1954 edition. Washington, Amer. Forest Products Industries, Inc., p. 5.

[1954] "THE RECONSTRUCTED VEGETATION OF THE REELFOOT LAKE, MARSTON, Mo.

black and white

[1:121,000]

LEGEND

1. Cottonwoods-willows

5. Tulip-oak climax

a. Bush

6. Cypress ash

b. Small tree

7. Open water & stubs (living

c. Mature

cypress trees sunk at the time of the earthquake)

2. Hackberry gum

8. Black willow, etc.

3. Oak hickory

9. Cut grass

4. Tulip-oak late subclimax

SHELFORD, VICTOR E.

1954 "Some lower Mississippi Valley flood plain biotic communities; their age and elevation." *Ecology*, vol. 35, pp. 130-131.

[1958] "CLARK NATIONAL FOREST, ELLINGTON S. E. QUADRANGLE, MISSOURI"

orange outline

[1:31,680]

LEGEND

1. Oak-hickory

6. Plantation

2. Oak-pine

7. Open field

3. Cedar-hardwood

8. Glade

4. Pine

9. Brush-non-forest

5. Bottomland hardwoods

10. Field, cultivated and non-cultivated

UNITED STATES. *Forest Service*

1959 Milwaukee, Wisconsin, U. S. Dept. Agr., Forest Serv., Office of North Central Region (1958). Similar Timber Survey maps published 1959 to 1961 for:

Clark National Forest, Van Buren S. W. Quadrangle

Mark Twain National Forest, Topaz S. E. Quadrangle

Mark Twain National Forest, Manes N. E. Quadrangle
Mark Twain National Forest, Shell Knob N. W. Quadrangle

[1961] "VEGETATION MAP [OF MISSOURI]"

black and white

[1:4,900,000]

LEGEND

- | | |
|---------------------------|--------------------------|
| 1. Tall grass prairie | 5. Flatwoods, swamp |
| 2. Upland forest | 6. Floodplain forest |
| 3. Pine woods | 7. Grama grass, soapweed |
| 4. Wh. River cedar glades | 8. American beech, holly |

KUCERA, CLAIR L.

1961 "The grasses of Missouri." *Univ. Missouri Studies*, vol. 35, p. 226. Reprinted: 1963 [1:5,500,000], in Kucera, Clair L. and others, "Some effects of fire on tree species in Missouri prairie." *Iowa State Jour. Sci.*, vol. 38, p. 180.

MONTANA

1898 "MAP OF PART OF THE BITTERROOT FOREST RESERVE, MONTANA, SHOWING THE DISTRIBUTION OF THE PRINCIPAL TIMBER SPECIES"

in color

[1:262,000]

LEGEND

1. Poplars (*Populus balsamifera*, *P. tremuloides*), with some yellow pine (*Pinus ponderosa*) and willows
2. Yellow pine (*Pinus ponderosa*), 70% and over
3. Red fir (*Pseudotsuga taxifolia*), 80% and over
4. Subalpine areas sparsely covered with varying proportions of subalpine fir (*Abies lasiocarpa*); white bark pine (*Pinus albicaulis*); Lyall larch (*Larix lyallii*); Engelmann spruce (*Picea engelmanni*); and lodgepole pine
5. Lodgepole pine (*Pinus murrayana*); nearly pure growth
6. Agricultural lands within the reserve

LEIBERG, J. B.

1899 "Bitterroot Forest Reserve." *U. S. Geol. Surv., Ann. Rept.* no. 19 (1897-1898), pt. 5 (Forest reserves), inserted between pp. 256-257.

[1905] "FLATHEAD LAKE"

red, black, and white

[1:96,400]

LEGEND

1. Hydrophytic [meadow formations]
2. Meso-hydrophytic [spruce formations]
3. Mesophytic [western larch-Douglas spruce formations]
4. Meso-xerophytic [Douglas spruce-bull pine]
5. Xerophytic [prairie]

WHITFORD, HARRY N.

1905 "The forests of the Flathead Valley, Montana." *Botanical Gazette*, vol. 39, facing p. 102.

[1925] "MAP OF ALPINE PARK [SOUTH OF LOGAN PASS, GLACIER NATIONAL PARK]"

black and white

incalculable

LEGEND

- | | |
|-----------------------------|---------------------|
| 1. Rock terrace formation | 4. Conifer clumps |
| 2. Wet ledge formation | 5. Steppe formation |
| 3. Mesophytic conifer grove | |

WATERMAN, W. G.

1925 "Plant communities of Alpine Park." *Botanical Gazette*, vol. 80, p. 189.

[1926] "LOCATION OF GENERAL TIMBER TYPES OF MONTANA"
 black and white [1:6,400,000]

LEGEND

- A. Pine stands
 - 1. Principal species white pine
 - 2. Principal species yellow pine
- B. Mixed stands
 - 3. Principal species larch & Douglas fir
 - 4. Principal species lodgepole pine & Douglas fir

CUNNINGHAM, R. N., S. V. FULLAWAY, JR. and C. N. WHITNEY

1926 *Montana forest and timber handbook*. State Univ. Montana Studies, no. 1, p. 8.

1951 "MAJOR FOREST TYPES, MONTANA"
 in color [1:2,700,000]

LEGEND

- | | |
|-------------------|--------------------------------------|
| 1. Douglas-fir | 7. Spruce-fir |
| 2. Ponderosa pine | 8. Hardwoods, shown diagrammatically |
| 3. White pine | 9. Coniferous woodland |
| 4. Larch | 10. Noncommercial forest land |
| 5. Lodgepole pine | 11. Nonforest |
| 6. Reserved land | |

Pattern indicates percentage of land forested

UNITED STATES. *Forest Service*

1952 In Hutchison, S. Blair, and Paul D. Kemp, *Forest resources of Montana*. U. S. Dept. Agr., Forest Resource Rept. no. 5, inserted at back.

[1954] "TYPE MAP OF THE TREE UNIONS ON BULL ISLAND, FLATHEAD LAKE, MONTANA"
 black and white [1:10,900]

LEGEND

- | | |
|-------------------|------------|
| 1. Douglas fir | 3. Larch |
| 2. Ponderosa pine | 4. Cleared |

ADAMS, LOWELL

1959 "An analysis of a population of snowshoe hares in northwestern Montana." *Ecological Monographs*, vol. 29, p. 143.

1962 "VEGETATIVE TYPES"
 green and white 1:3,770,000

LEGEND

- | | |
|---|-------------------------------------|
| 1. Undifferentiated stream bottoms and intermountain valley, grassland and meadow | 4. Foothill grassland and sagebrush |
| 2. Forest and alpine grassland | 5. Sagebrush and saltbush |
| 3. Eastern Montana pine forest and savanna | 6. Undifferentiated grassland |
| | 7. Prairie county grassland |

HELNBURN, NICHOLAS, MILTON J. EDIE *and* GORDON W. LIGHTFOOT

1962 *Montana in maps*. Bozeman, Mont., Research and Endowment Foundation, Montana State College. p. 17.

1962 "FOREST TYPES"
green and white 1:3,770,000

LEGEND

1. Noncommercial forest (largely alpine, including some meadows)
2. Lodgepole pine
3. Montane forest (including white pine, larch, Douglas fir, spruce-fir)
4. Ponderosa pine (western)
5. Ponderosa pine (eastern, including open woodland stands)
6. Nonforest

HELNBURN, NICHOLAS, MILTON J. EDIE *and* GORDON W. LIGHTFOOT

1962 *Montana in maps*. Bozeman, Mont., Research and Endowment Foundation, Montana State College. p. 19.

1962 "MAJOR FOREST TYPES, WESTERN MONTANA"
in color [1:2,600,000]

LEGEND

- | | |
|-------------------|-------------------|
| 1. Douglas-fir | 5. Lodgepole pine |
| 2. Ponderosa pine | 6. Spruce-fir |
| 3. White pine | 7. Non-forest |
| 4. Larch | |

Reserved land is shown by an overprinted symbol

UNITED STATES. *Forest Service*

1963 *In* Pissot, Henry J., and Harold E. Hanson, *The forest resource of western Montana*. Intermountain Forest and Range Exp. Sta., U. S. Forest Serv. Resource Bull. INT-1, p. 41.

[1963] "VEGETATION MAP OF THE RESEARCH AREA [GALLATIN COUNTY, MONTANA]"
black and white [1:94,000]

LEGEND

- | | |
|-------------------------|-----------------------------|
| 1. Rockslide | 6. Spruce-fir |
| 2. Grassland | 7. Douglas fir |
| 3. Sagebrush | 8. Limber or whitebark pine |
| 4. Lodgepole pine | 9. Aspen |
| 5. Lodgepole-spruce-fir | |

PATTEN, D. T.

1963 "Vegetational pattern in relation to environments in the Madison Range, Montana. *Ecological Monographs*, vol. 33, p. 379.

NEBRASKA

1898 "DISTRIBUTION OF TIMBER IN NORTHWESTERN NEBRASKA"
 in color [1:886,000]

LEGEND

- 1. Pine timber
- 2. Cottonwood, boxelder and other deciduous timber

DARTON, N. H.

1899 "Pine Ridge timber." *In: Nineteenth annual report, United States Geological Survey, 1897-1898, part 5. Forest reserves.* Washington, U. S. Geol. Surv., pl. 110, following p. 387.

[1914] "THE PHYTOGEOGRAPHIC REGIONS OF NEBRASKA"
 in color [1:3,800,000]

LEGEND

- 1. Yellow pine
- 2. Broadleaf woods
- 3. Prairie region
- 4. Sandhills
- 5. Short grass region
- 6. Bad lands

POOL, RAYMOND J.

1914 "A study of the vegetation of the sandhills of Nebraska." *Minnesota Bot. Stud.*, vol. 4, part 3, frontispiece.

[1925] "MAP SHOWING THE DISTRIBUTION OF THE QUERCUS VELUTINA-HICORIA
 OVATA ASSOCIES"
 black and white [1:3,700,000]

LEGEND

- 1. *Hicoria ovata* consocieties
- 2. *Quercus velutina-Hicoria ovata*

AIKMAN, JOHN M.

1926 *Distribution and structure of the forests of eastern Nebraska.* Univ. [Nebraska] Studies, vol. 26, p. 52.

[1925] "MAP SHOWING THE DISTRIBUTION OF THE QUERCUS MAXIMA-TILIA AMERI-
 CANA ASSOCIATION"
 black and white [1:3,700,000]

LEGEND

- 1. *Tilia americana* consociation
- 2. *Quercus maxima-Tilia americana*

AIKMAN, JOHN M.

1926 *Distribution and structure of the forests of eastern Nebraska.* Univ. [Nebraska] Studies, vol. 26, p. 57.

- [1925] "MAP SHOWING THE DISTRIBUTION OF THE QUERCUS MACROCARPA-HICORIA
CORDIFORMIS ASSOCIES"
black and white [1:3,700,000]

LEGEND

1. *Quercus macrocarpa* consociates
2. *Hicoria cordiformis-Quercus macrocarpa*
3. *Quercus muhlenbergii* with the two dominants

AIKMAN, JOHN M.

1926 *Distribution and structure of the forests of Eastern Nebraska.*
Univ. [Nebraska] Stud., vol. 26, p. 46.

- [1947] "DISTRIBUTION OF PONDEROSA PINE (PINUS PONDEROSA SCOPULORUM),
SHOWN BY CROSSES, IN THE MIXED-PRAIRIE REGION OF NEBRASKA"
black and white [1:6,000,000]

LEGEND

1. Mixed prairie
2. True prairie

TOLSTEAD, W. L.

1947 "Woodlands in northwestern Nebraska." *Ecology*, vol. 28, p.
180.

- [1961] "FOREST COVER IN NEBRASKA"
black and white [1:5,300,000]

LEGEND

1. Hardwoods
2. Ponderosa pine

STONE, ROBERT N. and WALTER T. BAGLEY

1961 *The forest resources of Nebraska.* Rocky Mountain Forest and
Range Exp. Sta., Forest Surv. Release no. 4, p. 3.

NEVADA

- 1920 "MAP OF THE DRAINAGE BASIN OF STEPTOE VALLEY, NEVADA"
in color 1:125,000

LEGEND

1. Rabbit-brush area
2. Greasewood area
3. Irrigated or meadow land
4. Area of active ground-water discharge. Grass land, chiefly salt grass, and some barren alkali land

CLARK, W. O. and C. W. RIDDELL

1920 *Exploratory drilling for water and use of ground water for irrigation in Steptoe Valley, Nevada*. U. S. Geol. Surv., Water-Supply Paper no. 467, facing p. 18 (Partly reprinted, 1927 [1:220,000], in Meinzer, Oscar Edward, *Plants as indicators of ground water*. U. S. Geol. Survey, Water-Supply Paper no. 577, p. 42.

- [1927] "MAP OF A PART OF BIG SMOKY VALLEY, NEV., SHOWING ZONES OF
VEGETATION"
black and white [1:495,000]

LEGEND

1. Barren playa
2. Zone in which salt grass (*Distichlis spicata*), samphire (*Allenrolfea occidentalis*), and other ground-water plants are dominant
3. Zone in which big greasewood (*Sarcobatus vermiculatus*) is dominant
4. Elevated parts of the valley in which shadscale (*Atriplex confertifolia*) and little greasewood (*Sarcobatus baileyi*) are dominant

MEINZER, OSCAR EDWARD

1927 *Plants as indicators of ground water*. U. S. Geol. Surv., Water-Supply Paper no. 577, p. 40.

- 1939 "VEGETATION TYPES, DOUGLAS, ORMSBY, AND SOUTHWESTERN WASHOE
COUNTIES—NEVADA"
in color [1:543,000]

LEGEND

- | | |
|---------------|---------------------------------|
| 1. Cultivated | 7. Piñon and juniper |
| 2. Grassland | 8. Pine belt |
| 3. Marshland | 9. Pine-fir belt |
| 4. Sagebrush | 10. Lodgepole-white pine belt |
| 5. Chaparral | 11. Whitebark-foxtail pine belt |
| 6. Woodland | |

UNITED STATES. *Forest Service*

1941 In Wilson, R. C., *Vegetation types and forest conditions of Douglas, Ormsby and southwestern Washoe Counties, Nevada*. California Forest and Range Exp. Sta., Forest Surv. Release no. 2, p. 12a.

[1954] "VEGETATION ZONES OF WESTERN NEVADA"

black and white

[1:709,000]

LEGEND

- | | |
|------------------------------------|-----------------------------------|
| 1. Tule marsh | 7. Pinyon-juniper woodland |
| 2. Saline playas | 8. Upper sagebrush chaparral |
| 3. Shadscale desert | 9. Limber pine forest |
| 4. Big greasewood salt desert | 10. Jeffrey pine-white fir forest |
| 5. Lower sagebrush semidesert | 11. Sierran subalpine forest |
| 6. Juniper-sagebrush open woodland | 12. Red fir forest |
| | 13. Alpine fell-fields |

BILLINGS, W. D.

[1954] In Billings, W. D., M. H. K. Humpfreys and J. B. Darling, *Environmental studies in the cold deserts and semideserts of the Western Great Basin of North America*. Natick, Massachusetts, U. S. Army, Headquarters Quartermaster Res. & Develop. Command, Environmental Protection Div., unnumbered report, fig. 117, in appendix.

[1962] "NEVADA TEST SITE [NYE COUNTY]"

black and white

[1:79,000 not 1:24,000 as stated]

LEGEND

- | | |
|----------------------------|---------------------|
| 1. <i>Larrea-Franseria</i> | 5. <i>Coleogyne</i> |
| 2. <i>Atriplex-Kochia</i> | 6. <i>Salsola</i> |
| 3. Pinyon-juniper | 7. Mountainous area |
| 4. <i>Grayia-Lycium</i> | |

ALLRED, DONALD M. and others

1963 "Biotic communities of the Nevada Test Site." *Brigham Young Univ. Sci. Bull.*, Biol. Ser., vol. 2, no. 2, inserted at back.

NEW HAMPSHIRE

- [1855] "TREES IN THE ORIGINAL FOREST, LEBANON, N. H., A RECONSTRUCTION OF THE ORIGINAL FOREST COVER OF LEBANON, FROM 531 TREES NAMED AS BOUNDS IN THE EARLY SURVEYS"

black and white

[1:127,000]

LEGEND

- | | |
|----------------|----------------|
| 1. Beech | 12. White ash |
| 2. Maple | 13. Black ash |
| 3. Hard maple | 14. Elm |
| 4. Soft maple | 15. Butternut |
| 5. Basswood | 16. Beatlewood |
| 6. Birch | 17. Poplar |
| 7. White birch | 18. Buttonwood |
| 8. Black birch | 19. Hemlock |
| 9. White oak | 20. Pine |
| 10. Red oak | 21. White pine |
| 11. Black oak | 22. Spruce |

[Distribution of 531 individual trees mapped on topographic base.]

TORBERT, EDWARD N.

1936 "The evolution of land utilization in Lebanon, New Hampshire." *Geographical Review*, vol. 26, p. 212.

- 1936 "FOREST REGIONS OF NEW HAMPSHIRE"

black and white

[1:1,300,000]

LEGEND

- | | |
|----------------------|--------------------|
| 1. Spruce region | 3. Hardwood region |
| 2. White pine region | |

Also indicates approximate boundary of north spruce and hardwoods region

BALDWIN, H. I.

1936 In Baldwin, H. I., and Charles F. Brooks, *Forests and floods in New Hampshire*. Boston, Massachusetts, New England Regional Planning Comm., Publ. no. 47, p. [29], (processed).

- 1940 "THE YALE FOREST IN KEENE AND SWANEY, N. H."

in color

[1:96,000]

LEGEND

- | | |
|---------------|-------------|
| 1. White pine | 4. Hemlock |
| 2. Red pine | 5. Swamp |
| 3. Spruce | 6. Hardwood |

7. Open swamp
8. Non-forested

9. Areas under regeneration

HAWLEY, RALPH C. and ROBERT T. CLAPP

1942 *Growing of white pine on the Yale forest near Keene, New Hampshire*. New Haven, Yale Univ., School of Forestry, Bull. no. 48, in pocket.

- 1947 "NEW HAMPSHIRE, COVER TYPE GROUPS"
in color [1:1,600,000]

LEGEND

- | | |
|------------------------|----------------|
| 1. White-red-jack pine | 4. Aspen-birch |
| 2. Spruce-fir | 5. Nonforest |
| 3. Maple-beech-birch | |

UNITED STATES. *Forest Service*

1954 *The forest resources of New Hampshire*. Northeastern Forest Experiment Station. Forest Resource Rept. no. 8, inserted at back.

- [1951] "PRESENT FOREST COVER TYPES IN A PORTION OF THE MILAN, NEW HAMPSHIRE, QUADRANGLE"
black and white [1:177,000]

LEGEND

- | | |
|------------------------|----------------|
| 1. Aspen-gray birch | 5. Paper birch |
| 2. Northern hardwood | 6. Spruce-fir |
| 3. Spruce-fir—hardwood | 7. Nonforest |
| 4. Hardwood-spruce-fir | |

WESTVELD, MARINUS

1951 "Vegetation mapping as a guide to better silviculture." *Ecology*, vol. 32, p. 510.

- [1951] "CLIMAX ASSOCIATIONS . . . [IN A PORTION OF THE MILAN, NEW HAMPSHIRE, QUADRANGLE], AS INTERPRETED FROM PRESENT COVER TYPES"
black and white [1:177,000]

LEGEND

- | | |
|----------------------------|---------------------------------|
| 1. Spruce-fir | 3. Red spruce-sugar maple-beech |
| 2. Red spruce-yellow birch | |

WESTVELD, MARINUS

1951 "Vegetation mapping as a guide to better silviculture." *Ecology*, vol. 32, p. 510.

- [1951] "RELATIONSHIP BETWEEN FOREST TYPE AND GROUND-VEGETATION TYPE ON A PORTION OF THE GALE RIVER EXPERIMENTAL FOREST, GRAFTON COUNTY, NEW HAMPSHIRE"
black and white [1:13,600]

LEGEND

- | | |
|--------------------|-----------------------|
| A. Forest types | 2. Balsam fir flat |
| 1. Red spruce flat | 3. Black spruce swamp |

NEW HAMPSHIRE

- | | |
|---------------------------------|--------------------------------|
| 4. Red spruce-yellow birch | 9. <i>Sphagnum-Ledum</i> |
| 5. Red spruce-sugar maple-beech | 10. <i>Hylocomium-Hypnum</i> |
| 6. Northern hardwood | 11. <i>Cornus-Maianthemum</i> |
| 7. Aspen-gray birch | 12. <i>Oxalis-Cornus</i> |
| 8. Paper birch-aspen | 13. <i>Viburnum-Oxalis</i> |
| B. Minor-vegetation types | 14. <i>Viburnum</i> |
| | 15. <i>Oakesia-Maianthemum</i> |

WESTVELD, MARINUS

1951 "Vegetation mapping as a guide to better silviculture." *Ecology*, vol. 32, p. 513.

1953 "MT. WASHINGTON [NEW HAMPSHIRE] TEST AREA, VEGETATION" green and white [1:106,000]

LEGEND

- | | |
|---|----------------------------|
| 1. Grassland | 4. Coniferous forest |
| 2. Deciduous hardwood forest | 5. Scrub coniferous forest |
| 3. Mixed deciduous hardwood and coniferous forest | 6. Arctic plant zone |

UNITED STATES. Army. Quartermaster Research and Development Division

1953 *Handbook of Mt. Washington environment*. Natick, Massachusetts, U. S. Army, Headquarters Quartermaster Res. & Develop. Command, Environmental Protection Div., Rept. no. 218, p. 14.

NEW JERSEY

LEGEND

- | | |
|----------------|-------------------|
| 1. Tide marsh | 4. Cedar swamp |
| 2. Fresh marsh | 5. Cranberry bogs |
| 3. Pine swamp | |

COOK, GEORGE H. and C. C. VERMEULE

1887 *Atlas of New Jersey*. Trenton, New Jersey Geological Survey, sheet no. 13.

- 1886 "A TOPOGRAPHICAL MAP OF THE PENINSULA OF CAPE MAY WITH THE COUNTRY WESTWARD TO MAURICE RIVER"
in color [1:63,000]

LEGEND

- | | |
|----------------|-------------------|
| 1. Tide marsh | 4. Cedar swamp |
| 2. Fresh marsh | 5. Cranberry bogs |
| 3. Pine swamp | |

COOK, GEORGE H. and C. C. VERMEULE

1887 *Atlas of New Jersey*. Trenton, New Jersey Geological Survey, sheet no. 17.

- 1887 "A TOPOGRAPHICAL MAP OF THE VICINITY OF TRENTON, NEW BRUNSWICK AND BORDENTOWN"
in color [1:63,000]

LEGEND

- | | |
|----------------|-------------------|
| 1. Tide marsh | 4. Cedar swamp |
| 2. Fresh marsh | 5. Cranberry bogs |
| 3. Pine swamp | |

COOK, GEORGE H. and C. C. VERMEULE

1887 *Atlas of New Jersey*. Trenton, New Jersey Geological Survey, sheet no. 8.

- 1887 "A TOPOGRAPHICAL MAP OF THE VICINITY OF SALEM FROM WOODBURY AND BRIDGETON WESTWARD TO THE DELAWARE RIVER"
in color [1:63,000]

LEGEND

- | | |
|--------------------------------|----------------------------|
| 1. Tide marsh | 5. Reclaimed land (meadow) |
| 2. Fresh marsh | 6. Pine swamp |
| 3. Marsh below high water | 7. Cedar swamp |
| 4. Reclaimed land (cultivated) | |

COOK, GEORGE H. and C. C. VERMEULE

1887 *Atlas of New Jersey*. Trenton, New Jersey Geological Survey, sheet no. 10.

- 1887 "A TOPOGRAPHICAL MAP OF THE VICINITY OF CAMDEN TO BURLINGTON, WINSLOW, ELMER AND SWEDESBORO"
in color [1:63,000]

LEGEND

- | | |
|--------------------------------|----------------------------|
| 1. Tide marsh | 5. Reclaimed land (meadow) |
| 2. Fresh marsh | 6. Pine swamp |
| 3. Marsh below high water | 7. Cedar swamp |
| 4. Reclaimed land (cultivated) | |

COOK, GEORGE H. and C. C. VERMEULE

1887 *Atlas of New Jersey*. Trenton, New Jersey Geological Survey, sheet no. 11.

- 1887 "A TOPOGRAPHICAL MAP OF THE VICINITY OF MOUNT HOLLY, FROM BORDENTOWN SOUTHWARD TO WINSLOW AND WOODMANSIE"
in color [1:63,000]

LEGEND

- | | |
|----------------|-------------------|
| 1. Tide marsh | 4. Cedar swamp |
| 2. Fresh marsh | 5. Cranberry bogs |
| 3. Pine swamp | |

COOK, GEORGE H. and C. C. VERMEULE

1887 *Atlas of New Jersey*. Trenton, New Jersey Geological Survey, sheet no. 12.

- 1887 "A TOPOGRAPHICAL MAP OF THE VICINITY OF BRIDGETON, FROM ALLOWAY, ELMER AND NEWFIELD SOUTHWARD TO THE DELAWARE BAY SHORE"
in color [1:63,000]

LEGEND

- | | |
|--------------------------------|--------------------|
| 1. Tide marsh | 5. Pine swamp |
| 2. Fresh marsh | 6. Cedar swamp |
| 3. Reclaimed land (cultivated) | 7. Cranberry swamp |
| 4. Reclaimed land (meadow) | |

COOK, GEORGE H. and C. C. VERMEULE

1887 *Atlas of New Jersey*. Trenton, New Jersey Geological Survey, sheet no. 14.

- 1887 "A TOPOGRAPHICAL MAP OF THE SOUTHERN INTERIOR FROM MILLVILLE TO ATCO AND EGG HARBOR CITY"
in color [1:63,000]

LEGEND

- | | |
|----------------|-------------------|
| 1. Tide marsh | 4. Cedar swamp |
| 2. Fresh marsh | 5. Cranberry bogs |
| 3. Pine swamp | |

COOK, GEORGE H. and C. C. VERMEULE

1887 *Atlas of New Jersey*. Trenton, New Jersey Geological Survey, sheet no. 15.

- 1890 "CAPE MAY"
black and white [1:92,200]

LEGEND

- 1. [Forest]
- 2. [Marsh]
- 3. [Other, including agricultural land and settlements]

STONE, WITMER

1937 *Bird studies at old Cape May: an ornithology of coastal New Jersey*. Philadelphia, Delaware Valley Ornithological Club at the Academy of Natural Sciences of Philadelphia, vol. 1, p. 34.

- 1896 "MAP OF HACKENSACK MEADOWS TO ILLUSTRATE REPORT ON DRAINAGE"
in color [1:31,700]

LEGEND

- 1. [Marsh]
 - 2. [*Chamaecyparis thyoides* forest]
- Also indicates extent of cedar swamp bottom in contemporary marsh areas

VERMEULE, CORNELIUS CLARKSON

1897 "Drainage of the Hackensack and Newark tide-marshes." *Ann. Rept. New Jersey State Geol.* for 1896, in pocket.

- [1898] "MAP OF NEW JERSEY"
black and white [1:1,700,000]

LEGEND

- 1. Deciduous zone
- 2. Tension zone
- 3. Coniferous zone

HOLLICK, ARTHUR

1899 "The relation between forestry and geology in New Jersey." *American Naturalist*, vol. 33, facing p. 1.

- 1898 "[SOUTHERN NEW JERSEY PINE BELT]"
in color [1:1,000,000]

LEGEND

- 1. Coniferous forest
 - a. Unbroken forest and suggested reservations
 - b. Broken by clearings
- 2. Mixed coniferous and deciduous forest

VERMEULE, CORNELIUS CLARKSON

1899 "The Pine Belt of southern New Jersey, and water-supply." *Geol. Surv. New Jersey, Ann. Rept. State Geol.* for 1898, facing p. 185.

- [1901] "[A DUNE VALLEY WHICH HAS NOT BEEN BROUGHT DOWN TO THE LEVEL OF THE GROUND WATER, AT SOUTH SEA SIDE PARK]"
black and white [incalculable]

LEGEND

- 1. *Myrica cerifera* L.
- 2. *Hudsonia tomentosa* Nutt.
- 3. Pure sand
- 4. *Solidago sempervirens* L.
- 5. *Ammophila arenaria* (L.) Link

HARSHBERGER, JOHN W.

1902 "Additional observations on the strand flora of New Jersey."
Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 644.

- [1901] "[A LEVEL TROUGH OF WET SAND, SURROUNDED BY SUN-DRIED SAND ON ALL SIDES, AT SOUTH SEA SIDE PARK]"
black and white [incalculable]

LEGEND

- | | |
|------------------------------------|-------------------------------|
| 1. <i>Solidago sempervirens</i> L. | 3. <i>Panicum virgatum</i> L. |
| 2. <i>Scirpus debilis</i> Pursh. | 4. Pure sand |

HARSHBERGER, JOHN W.

1902 "Additional observations on the strand flora of New Jersey."
Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 645.

- [1901] "[BASIN-SHAPED DEPRESSION IN DUNES AT SOUTH SEA SIDE PARK, THE BOTTOM OF WHICH IS WET BY THE SEEPAGE OF THE GROUND WATER THROUGH THE SAND]"
black and white [incalculable]

LEGEND

- | | |
|------------------------------------|---|
| 1. [<i>Scirpus sylvaticus</i> L.] | 6. <i>Euthamia caroliniana</i> (L.)
Greene |
| 2. <i>Typha latifolia</i> L. | 7. <i>Myrica cerifera</i> L. |
| 3. Pure sand | 8. <i>Cyperus nuttallii</i> Eddy |
| 4. <i>Scirpus debilis</i> Pursh. | 9. <i>Ammophila arenaria</i> (L.) Link |
| 5. <i>Solidago sempervirens</i> L. | 10. <i>Juncus</i> sp. |

HARSHBERGER, JOHN W.

1902 "Additional observations on the strand flora of New Jersey."
Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 646.

- [1901] "[A XEROPHYTIC MARSH ASSOCIATION IN THE TRANSVERSE DUNE COMPLEX AT SEA SIDE PARK]"
black and white [incalculable]

LEGEND

- | | |
|--|--|
| 1. <i>Oxycoccus macrocarpus</i> (Ait.)
Pers. | 9. <i>Ilex glabra</i> (L.) A. Gray |
| 2. <i>Vaccinium corymbosum</i> L. and
<i>Gaylussacia resinosa</i> (Ait.)
T. & G. | 10. <i>Ilex opaca</i> Ait. |
| 3. <i>Panicum virgatum</i> L. | 11. <i>Myrica cerifera</i> L. |
| 4. <i>Juncus</i> sp. | 12. <i>Juniperus virginiana</i> L. |
| 5. <i>Drosera rotundifolia</i> L. | 13. <i>Pinus rigida</i> Mill |
| 6. <i>Hudsonia tomentosa</i> Nutt. | 14. <i>Drosera filiformis</i> Raf. |
| 7. <i>Lycopodium carolinianum</i> L. | 15. <i>Quercus minor</i> (Marsh) Sarg. |
| 8. <i>Pogonia ophioglossoides</i> (L.)
Ker. | 16. <i>Andropogon virginicus</i> L. |
| | 17. <i>Kalmia angustifolia</i> L. |
| | 18. <i>Chamaecyparis thyoides</i> (L.)
B.S.P. |
| | 19. <i>Acer rubrum</i> L. |

HARSHBERGER, JOHN W.

1902 "Additional observations on the strand flora of New Jersey."
Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 647.

1910 "A MAP OF NEW JERSEY"
 in color [1:1,000,000]

LEGEND

- | | |
|--|---------------------|
| 1. Middle, Coast, and Cape May Districts | 2. Pine Barrens |
| | 3. Maritime marshes |

STONE, WITMER

[1912] "The plants of southern New Jersey with especial reference to the flora of the Pine Barrens and the geographic distribution of the species." *Ann. Rept. New Jersey State Mus.*, 1910, inserted at front. Reprinted, 1912 [1:1,590,000], black and white, in Taylor, Norman, "On the origin and present distribution of the Pine-Barrens of New Jersey." *Torrey*, vol. 12, p. 230; reprinted, 1915 black and white [1:1,500,000], in Taylor, Norman, "Flora of the vicinity of New York." *Mem. New York Bot. Garden*, vol. 5, facing p. 8.

1916 "MAP OF THE VEGETATION OF THE PINE-BARRENS OF THE SOUTHERN PART OF NEW JERSEY"
 in color 1:250,000

LEGEND

- | | |
|-----------------|---------------------------------|
| 1. Cedar swamps | 5. Cultivated lands |
| 2. Savannas | 6. Deciduous swamps |
| 3. Plains | 7. Salt and fresh-water marshes |
| 4. Pine-barrens | |

HARSHBERGER, JOHN W.

1916 *The vegetation of the New Jersey Pine-Barrens*. Philadelphia, Christopher Sower Co., inserted at back.

[1916] "[BRANCH OF TOMS RIVER NEAR TOMS RIVER, NEW JERSEY]"
 black and white [incalculable]

LEGEND

- | | |
|---|------------------------------------|
| 1. <i>Pontederia cordata</i> at edge of water. <i>Peltandra virginica</i> | 4. <i>Zizania aquatica</i> |
| 2. <i>Hypericum densiflorum</i> | 5. <i>Alnus rugosa</i> |
| 3. <i>Dulichium spathaceum</i> | 6. Thicket with <i>Acer rubrum</i> |
| | 7. Unknown plant associations |

HARSHBERGER, JOHN W.

1916 *The vegetation of the New Jersey Pine Barrens*. Philadelphia, Christopher Sower Co., p. 141.

1924 "FOREST MAP OF NEW JERSEY SHOWING FORESTED AREAS AND STATE FORESTS"
 black and white [1:1,500,000]

LEGEND

1. Chiefly woodland, except for towns and scattered farms
 - a. The hardwood region of North Jersey uplands and the Delaware Valley contains chiefly such deciduous species as oak, maple, hickory, beech, birch, ash, tulip, gum, and elm

- b. Pine is the principal species found on the sandy soils of the South Jersey Coastal Plain region, with white cedar or hardwoods in the swamps, and considerable oak on the cut-over lands
2. Chiefly cleared land with scattered woodlots

NEW JERSEY. *Department of Conservation and Development. Division of Forestry and Parks*
1925 In Baker, Willis M., *Forestry for profit*, 2nd ed. Trenton, State of New Jersey, Department of Conservation and Development, p. 4.

- [1932] "OUTLINE MAP OF NEW JERSEY SHOWING THE OCCURRENCE OF THE LARGER PLANT COMMUNITIES [ON THE COASTAL PLAIN]"
black and white [1:1,600,000]

LEGEND

- | | |
|--|---------------------|
| 1. Middle, Coast, and Cape May districts [composed chiefly of deciduous hardwoods] | 2. Pine Barrens |
| | 3. Plains |
| | 4. Maritime marshes |

LUTZ, HAROLD J.

1934 *Ecological relations in the pitch pine plains of southern New Jersey*. Yale Univ., School of Forestry, Bull. no. 38, p. [83]. Reprinted, 1934 [1:1,900,000], in his "Concerning a geological explanation of the origin and present distribution of the New Jersey Pine Barren vegetation." *Ecology*, vol. 15, p. 401.

- [1932] "MAP OF AN AREA IN THE SOUTHWESTERN PART OF THE WEST PLAINS . . ."
black and white [1:14,900]

LEGEND

- | | |
|-----------------|-----------|
| 1. Cedar bog | 3. Plains |
| 2. Pine Barrens | |

Also indicates extent of 1925 Plains burn

LUTZ, HAROLD J.

1934 *Ecological relations in the pitch pine plains of southern New Jersey*. Yale Univ., School of Forestry, Bull. no. 38, p. [87].

- [1933] "DIAGRAM OF DAVENPORT LAKE BETWEEN TOMS RIVER AND WHITINGS, N. J."
black and white [1:4,300]

LEGEND

1. Encircling swampy groves of *Chamaecyparis*, *Magnolia*, etc.
2. Dry to marshy grass and shrub covered low ground
3. Elevated pine-barrens with their typical vegetation
4. Marginal areas of *Sarracenia* plants

MACFARLANE, JOHN M. and D. WALTER STECKBACK

1933 *Sarracenia purpurea var. stolonifera*, a noteworthy morphological and ecological type. Kew, Royal Botanic Gardens, Bull. Misc. Information, no. 4, 1933, p. 163.

3. Disturbed: one or more of the normal layers (tree, shrub, herb or moss layer) missing as a result of disturbance by man's activities
4. Talus: chestnut oak, black birch, tulip tree, redberried elder, round-leaved dogwood
5. Oak: red, white & other oaks, black birch, sugar maple, tulip tree, maple-leaved viburnum
6. Swamp: red maple, ash, elm, sweet gum, spicebush

COLLINS, STEPHEN

1957 *The biotic communities of Greenbrook Sanctuary*. Englewood, New Jersey, Palisades Nature Assoc., in pocket.

- [1956] "VEGETATION MAP OF THE WATCHUNG RESERVATION"
black and white [incalculable]

LEGEND

- | | |
|----------------------------------|-----------------------------|
| 1. Southeast-facing slope forest | 6. Ridgetop and talus slope |
| 2. Overgrown fields | 7. Mesic forest |
| 3. Open fields | 8. Cove forest |
| 4. Streamside and marsh | 9. Planted conifers |
| 5. Dry hillside | |

BAIRD, JAMES

1956 *The ecology of the Watchung Reservation, Union County, New Jersey*. New Brunswick, New Jersey, Dept. Botany, Rutgers Univ., p. 14.

- [1957] "APPROXIMATE GEOGRAPHIC AREA OF THE NEW JERSEY PINE-BARRENS"
black and white [1:2,600,000]

LEGEND

1. Pine-barrens

ANDRESEN, JOHN W.

1957 *Forestry research in the New Jersey Pine Barrens*. Rutgers Univ., Agr. Exp. Sta., New Jersey Agr., vol. 39, no. 3, p. 9.

- 1957 "[THE PINE AND OAK-PINE VEGETATION OF SOUTHERN NEW JERSEY]"
black and white [1:1,300,000]

LEGEND

- | | |
|--------------------------|------------------------|
| 1. Pine Barrens | 3. Virginia pine areas |
| 2. Oak-pine fringe areas | |

McCORMICK, JACK

1963 In McCormick, Jack, and John W. Andresen, "The role of *Pinus virginiana* Mill. in the vegetation of southern New Jersey." *New Jersey Nature News*, vol. 18, p. 28.

- 1957 "THE VEGETATION OF ISLAND BEACH STATE PARK, N. J."
black and white [1:19,300]

LEGEND

- | | |
|-----------------------------------|----------------------|
| 1. <i>Ammophila breviligulata</i> | 10. Dune |
| 2. <i>Baccharis halimifolia</i> | 11. Fresh marsh |
| 3. <i>Hudsonia tomentosa</i> | 12. Salt marsh |
| 4. <i>Iva frutescens</i> | 13. Low thicket |
| 5. <i>Juniperus virginiana</i> | 14. High thicket |
| 6. <i>Pinus rigida</i> | 15. Woodland |
| 7. <i>Phragmites communis</i> | 16. Xeric |
| 8. <i>Spartina patens</i> | 17. Mesic |
| 9. <i>Smilax rotundifolia</i> | 18. Beach, bare sand |

MARTIN, WILLIAM E.

1959 "The vegetation of Island Beach State Park, New Jersey." *Ecological Monographs*, vol. 29, pp. 5-6.

[1957] "MAP OF HUTCHESON MEMORIAL FOREST [SOMERSET COUNTY] SHOWING PATTERNS OF SHRUB DOMINANCE WITHIN THE FOREST AND SHOWING THE ADJACENT COMMUNITIES"

black and white

[1:8,000]

LEGEND

- | | |
|--|-----------------------------|
| 1. <i>Viburnum acerifolium</i> | 6. <i>Prunus virginiana</i> |
| 2. <i>Viburnum prunifolium</i> | 7. <i>Prunus serotina</i> |
| 3. <i>Leucothoe racemosa</i> | 8. <i>Rhus radicans</i> |
| 4. <i>Viburnum dentatum</i> , <i>Smilax rotundifolia</i> | 9. Young woodlot |
| 5. <i>Lindera benzoin</i> , <i>Viburnum dentatum</i> | 10. Lowland thicket |
| | 11. Old field |
| | 12. Marsh |

MONK, CARL

1957 "Plant communities of the Hutcheson Forest based on shrub distribution." *Bull. Torrey Bot. Club*, vol. 84, p. 200. Reprinted, 1963 [1:12,500], in Frei, Karen R., and David E. Fairbrothers, "Floristic study of the William L. Hutcheson Memorial Forest (New Jersey)." *Ibid.*, vol. 90, pp. 338-339.

1958 "[FORESTS OF NEW JERSEY]"

red, black, and white

[1:1,300,000]

LEGEND

- | | |
|-------------|----------------|
| 1. Pine | 3. Oak-hickory |
| 2. Oak-pine | 4. Non-forest |

UNITED STATES. *Forest Service*

1958 In Cunningham, John T., "State forests and parks: woodlands of New Jersey." *Newark [New Jersey] Sunday News Magazine*, March 2, 1958, p. 6.

NEW MEXICO

- 1903 "LAND CLASSIFICATION MAP OF GILA RIVER FOREST RESERVE, NEW MEXICO"
in color [1:256,000]
- LEGEND
1. Timberless
 2. Woodland. Comprises scrub oak, juniper, cypress and piñon pine
 3. Yellow pine
- [Subdivided into four classes on the basis of board feet of merchantable timber per acre]
- RIXON, THEODORE F.
1905 *Forest conditions in the Gila River Forest Reserve, New Mexico*. U.S. Geol. Surv., Prof. Paper no. 39, pl. 1 in pocket.
- [1912] "AN OUTLINE MAP OF NEW MEXICO SHOWING THE DISTRIBUTION OF THE PRINCIPAL GRASS SOCIETIES"
black and white [1:5,400,000]
- LEGEND
1. The blue grama society. The society in which blue grama is the dominant species. It covers the higher plains, the forest, and woodland area
 2. The black grama society. This is the society which occupies the lower plains of the Territory. The principal grasses are black grama, tobosa, and the needle grasses
 3. This society is intermediate between 1 and 2. The characteristic grass is hairy grama, which replaces much of the blue grama and all of the black grama
 4. The salt grass society. Mainly composed of bunch grass and salt grass, with sedges and rushes in wet situations
 5. The Arizona fescue society. The dominant grass is Arizona fescue. The society usually occurs high in the mountains on open slopes and "burns"
- WOOTON, E. O. and PAUL C. STANDLEY
1912 *The grasses and grass-like plants of New Mexico*. New Mexico Coll. Agr. Mech. Arts, Agr. Exp. Sta., Bull. no. 81, facing p. 5.
- [1915] "MAP OF A PART OF THE EAST SLOPE OF TULAROSA BASIN, N. MEX., SHOWING AREAS IN WHICH MESQUITE IS THE DOMINANT PLANT AND THEIR RELATION TO GROUND WATER"
black and white [1:322,000]
- LEGEND
1. Zone in which chamiso is dominant vegetation, except in certain localities

where water table is near surface and where salt grass and pickleweed are dominant

- 2. Zone in which mesquite is dominant
- 3. Zone in which creosote is dominant

Legend states that map is taken from Meinzer and Hare (1915) map of shallow-water area of Tularosa Basin, but it bears little similarity to the original

MEINZER, OSCAR EDWARD

1927 *Plants as indicators of ground water*. U. S. Geol. Survey, Water-Supply Paper no. 577, p. 34.

- [1915] "MAP OF A PART OF THE WEST SLOPE OF TULAROSA BASIN, SHOWING ZONES OF VEGETATION"
black and white [1:253,000]

LEGEND

- 1. Creosote bush
- 2. Grass
- 3. Chamiso
- 4. Mesquite
- 5. Alkali flat

MEINZER, OSCAR EDWARD and R. F. HARE

1915 *Geology and water resources of Tularosa Basin, New Mexico*. U. S. Geol. Survey, Water-Supply Paper no. 343, p. 194. Reprinted, 1927 in Meinzer, Oscar Edward, *Plants as indicators of ground water*. U. S. Geol. Survey, Water-Supply Paper no. 577, p. 35.

- 1915 "MAP OF THE PRINCIPAL SHALLOW-WATER AREA OF TULAROSA BASIN, NEW MEXICO, SHOWING GEOLOGIC FORMATIONS, UNDERGROUND WATER, AND VEGETATION"
in color 1:125,000

LEGEND

- 1. Mesquite

MEINZER, OSCAR EDWARD and R. F. HARE

1915 *Geology and water resources of Tularosa Basin, New Mexico*. U. S. Geol. Survey, Water-Supply Paper no. 343, in pocket.

- [1918] "MAP OF SOUTHERN GRANT COUNTY, NEW MEXICO, SHOWING LOCATION OF WELLS AND SPRINGS, DEPTH TO WATER TABLE, AND CHARACTER OF VEGETATION"
in color 1:250,000

LEGEND

- 1. Grass
- 2. Brush
- 3. Thick brush (mostly creosote)
- 4. Mesquite
- 5. Scattered brush
- 6. Scattered brush and grass
- 7. Area practically barren of vegetation
- 8. Areas of alkali vegetation (salt grass, alkali sacaton, and other alkali-resistant plants)

SCHWENNESEN, A. T.

1918 *Ground water in the Animas, Playas, Hachita, and San Luis Basins, New Mexico*. U. S. Geol. Surv., Water-Supply Paper no. 422, facing p. 24. Southern portion reproduced, 1927 black and white, [1:487,000], in Meinzer, Oscar Edward, *Plants as indicators of ground water*. U. S. Geol. Survey, Water-Supply Paper no. 577, p. 50.

[1930] "PLANT DISTRIBUTION OF NEW MEXICO"

black and white

[1:5,600,000]

LEGEND

1. Semi desert: semi-desert gramas, tobosa, salt grass, annuals, greasewood, salt bushes
2. Short root grasses: higher mesa gramas, as blue grama, perennial weeds
3. Low woodland-brush: gramas, live oak & other browse, annuals; bear grass; little or no timber
4. High woodland piñon-juniper: blue grama, perennial weeds, sagebrush
5. Yellow pine forest: bunch grasses, blue grama, perennial weeds
6. Fir-aspen-spruce forest: summer forage, big bunch grasses, succulent grasses & weeds
7. Alpine ridges or peaks: short arctic sedges, weeds & grasses
8. Irrigated farm lands

LINNEY, CHARLES E., FABIAN GARCIA and E. C. HOLLINGER

1930 *Climate as it affects crops and ranges in New Mexico*. New Mexico College Agr. and Mech., Agr. Exp. Sta., Bull. no. 182, p. 62. Reprinted 1957 by New Mexico, Dept. of Game and Fish, Santa Fe, N.M.

[1931] "VEGETATION AREAS OF THE UPPER RIO GRANDE WATERSHED, IN NEW MEXICO"

black and white

[1:2,900,000]

LEGEND

1. Semidesert savanna (grass and shrubs) of lowest valleys and plain
2. Grasslands
3. Sagebrush savannas
4. Woodlands and savanna woodlands
5. Pine-fir forests
6. Spruce-fir forests (including vegetation above timber line)

COOPERRIDER, CHARLES K. and BARNARD A. HENDRICKS

1937 *Soil erosion and stream flow on range and forest lands of the upper Rio Grande watershed in relation to land resources and human welfare*. U. S. Dept. Agr., Tech. Bull. no. 567, p. 43.

[1939] "TYPES OF NATURAL VEGETATION, NEW MEXICO"

black and white

[1:5,900,000]

LEGEND

- | | |
|---------------------|---------------------|
| 1. Short grass | 3. Semidesert shrub |
| 2. Semidesert grass | 4. Oak brush |

- 5. Woodland
- 6. Forest

- 7. Irrigated lands

PARKER, KENNETH W.

1939 In Hunter, Byron, P. W. Cockerill, and H. B. Pingrey, *Type of farming and ranching areas in New Mexico, part 1*. New Mexico Agr. Exp. Sta., Bull. no. 261, p. 29. Reprinted, 1939 in Cockerill, P. W., B. Hunter, and H. B. Pingrey, *Type of farming and ranching areas in New Mexico, part 2*. N.M.A.E.S. Bull. no. 267, p. 32; reprinted, 1950 [1:5,600,000], in Little, Elbert L., Jr., *Southwestern trees, a guide to the native species of New Mexico and Arizona*. U. S. Dept. Agr., Agr. Handbook no. 9, p. 9.

1941 "TYPES OF GRAZING AREAS IN NEW MEXICO"

black and white

1:9,500,000

LEGEND

- 1. Forest
- 2. Woodland
- 3. Semi-desert range
- 4. Oak brush
- 5. Short grass

CULBERT, JAMES I.

1941 "Cattle industry of New Mexico." *Economic Geography*, vol. 17, p. 157.

[1948] "MAP OF THE GRANTS LAVA BED AND VICINITY, VALENCIA COUNTY, N. M."

black and white

[1:451,000]

LEGEND

- 1. Douglas fir belt
- 2. Ponderosa pine belt
- 3. Apache-plume belt

LINDSEY, ALTON A.

1951 "Vegetation and habitats in a southwestern volcanic area." *Ecological Monographs*, vol. 21, p. 228.

1955 "MIXED PRAIRIE OF NEW MEXICO"

black and white

[1:3,200,000]

LEGEND

- 1. Area characterized by southwestern mixed prairie dominants
- 2. Mixed prairie dominants associated with some species of desert plains grassland
- 3. A portion of desert plains grassland containing important elements of the mixed prairie

HEERWAGEN, ARNOLD

1956 "Mixed prairie in New Mexico." In Weaver, J. E., and F. W. Albertson, *Grasslands of the Great Plains, their nature and use*. Lincoln, Nebraska, Johnsen Publishing Co., pp. 286-287.

[1956] "DISTRIBUTION OF VEGETATIVE ZONES IN NEW MEXICO"

black and white

[1:4,800,000]

LEGEND

- | | |
|---------------------|---------------------|
| 1. Alpine tundra | 4. Woodland |
| 2. Petran subalpine | 5. Mixed grassland |
| 3. Petran montane | 6. Desert grassland |

CASTETTER, EDWARD F.

1956 "The vegetation of New Mexico." *New Mexico Quarterly*, vol. 26, p. 256.

[1956] "TULAROSA BASIN"

black and white

[1:880,000]

LEGEND

- | | |
|--------------------|---------------------|
| 1. Creosote bush | 5. Gypsum sands |
| 2. Mesquite | 6. Younger lava bed |
| 3. <i>Atriplex</i> | 7. Older lava bed |
| 4. Alkali flat | 8. Quartz sands |

Several areas within the mapped region are not typed nor explained

SHIELDS, LORA MANGUM

1956 "Zonation of vegetation within the Tularosa Basin, New Mexico." *Southwestern Naturalist*, vol. 1, p. 50.

[1956] "VEGETATIONAL TYPE MAP SHOWING THE DISTRIBUTION OF THE MAJOR PLANT ASSOCIATIONS OF THE SAN AUGUSTIN PLAINS DRAINAGE"

black and white

[1:362,000]

LEGEND

- | | |
|--------------------|------------------------------|
| 1. Douglas fir | 5. [Grama grassland], alkali |
| 2. Ponderosa pine | sacaton subtype |
| 3. Pinyon-juniper | 6. Saltbush-grama |
| 4. Grama grassland | 7. Greasewood-seepweed |

POTTER, LOREN D.

1957 "Phytosociological study of San Augustin Plains, New Mexico." *Ecological Monographs*, vol. 27, pp. 116-117. Reprinted, 1960 [1:422,000], in Potter, Loren D., and Joanne Rowley, "Pollen rain and vegetation, San Augustin Plains, New Mexico." *Botanical Gazette*, vol. 122, p. 8.

1957 "VEGETATIVE TYPE MAP OF NEW MEXICO"

in color

[1:655,000]

LEGEND

1. Semi-desert brush—chiefly creosote bush, tarbush, mesquite
2. Grassland—in central and north—blue grama, galleta, western wheat grass, beardgrasses. In south—blue grama, black grama, dropseeds, three-awns, tobosa, burro grass
3. Shinnery—shinnery oak with grasses
4. Big sagebrush
5. Woodland—pinyon, juniper, oak, mountain mahogany, with and without understory or shrubs and grasses

NEW MEXICO

6. Forest—at lower elevations—ponderosa pine and Douglas fir. At higher elevations—spruce and fir
7. Tundra—above timberline, grasses, sedges, herbs, and low shrubs
8. Irrigated lands—with water sources from surface water only or from surface water supplemented by pumping of ground water
9. Irrigated lands—with water source entirely from pumped or artesian ground water

NEW MEXICO. *College of Agriculture and Mechanic Arts. Department of Agricultural Economics*

1957 University Park, New Mexico, New Mexico College Agr. and Mechanic Arts, Agr. Exp. Sta.

NEW YORK

- [1913] "SKETCH MAP OF LONG ISLAND SHOWING RELATION TO THE MAINLAND, POSITION OF THE TERMINAL MORAINES, AND THE LARGER DIVISIONS OF THE VEGETATION"
black and white [1:1,900,000]

LEGEND

- | | |
|------------------------|-----------------|
| 1. Oak-chestnut forest | 3. Prairie |
| 2. Pine barrens | 4. Salt marshes |

TRANSEAU, EDGAR NELSON

1913 "The vegetation of Cold Spring Harbor, Long Island. I. The littoral successions." *Plant World*, vol. 16, p. 190.

- [1915] "OUTLINE MAP OF THE STATE OF NEW YORK"
in color [1:2,500,000]

LEGEND

1. Southern species; sweet gum, willow oak, persimmon, etc.
2. Chestnut, oaks, hickories, tulip-poplar, etc.
3. Sugar maple, beech, yellow birch, hemlock, white pine, etc.
4. Dominant trees of zone . . . [3] plus red spruce, balsam fir and paper birch
5. Canadian zone, red spruce, balsam fir, paper birch, mountain ash, etc.
6. Arctic-circumpolar plants. Tundra-like vegetation

BRAY, WILLIAM L.

1915 *The development of the vegetation of New York State*. [Bull.] New York State College Forestry, Syracuse Univ., vol. 16, no. 2 (Tech. Publ. no. 3), inserted at back. Reprinted 1921 black and white, in Brown, H. P., *Trees of New York State, native and naturalized*. *Ibid.*, vol. 21, no. 5 (Tech. Publ. no. 15), facing p. 370; reprinted with slight modification, 1930 in his: *The development of the vegetation of New York State*. Second edition. *Ibid.*, vol. 30, no. 2 (Tech. Publ. no. 29), inserted at back; reprinted with modifications by Homer D. House, 1932 [1:3,300,000], in Hotchkiss, Neil, *A botanical survey of the Tug Hill Plateau*. New York State Mus., Bull. no. 287, p. 24; House's revised map reprinted with revised legend, 1950 [1:5,100,000], in Braun, E. Lucy, *Deciduous forests of eastern North America*. Philadelphia, Blakiston Co., p. 395.

- [1916] "MAP OF REGION DESCRIBED [IN WAYNE, CAYUGA, AND SENECA COUNTIES]
black and white [1:507,000]

LEGEND

- | | |
|-----------------------|------------|
| 1. Cattail swamps | 4. Tangles |
| 2. Peat bogs | 5. Lakes |
| 3. Arbor vitae swamps | |

METCALF, F. P. and L. GRISCOM

1917 "Notes on rare New York State plants." *Rhodora*, vol. 19, p. 29.

- [1916] "[AQUATIC VEGETATION OF ONEIDA LAKE, NORTH-CENTRAL NEW YORK, THREE MAPS:] 1. MAP OF THE GROSS VEGETATION IN SHORT POINT BAY AND VICINITY; 2. MAP OF THE DISTRIBUTION OF THE GROSS VEGETATION IN THE LOWER PART OF LOWER SOUTH BAY; 3. MAP OF THE DISTRIBUTION OF THE GROSS VEGETATION ALONG THE SHORE OF ONEIDA LAKE EAST OF NOR-CROSS POINT"

black and white

[1:8,000]

LEGEND

[The distribution of from four to 34 groupings of aquatic plants, characterized by lists of one to 11 species, is shown on each map. Because of the limited geographic value and extreme length of this legend, is not reproduced.]

BAKER, FRANK COLLINS

1918 *The productivity of invertebrate fish food on the bottom of Oneida Lake, with special reference to mollusks*. New York State College of Forestry at Syracuse Univ., Tech. Publ. no. 9 (Vol. 18, no. 2), facing pp. 54, 56, and 58.

- 1919 "TYPE MAP OF A PORTION OF THE GRASS RIVER BOG"

black and white

[1:7900]

LEGEND

1. Pure meadow or sage and *sphagnum*
2. Sedge meadow with scattered heath shrub, leather-leaf, etc., or scattered clumps of shrub
3. Mixed meadow and shrub (shrub $\frac{1}{3}$ to $\frac{2}{3}$ of stand)
4. Pure shrub, practically all leather-leaf, *ledum*, blueberry, dead *sphagnum*, mound or tussock
5. Pure shrub, with taller species like *Viburnum cassinoides* and scattered conifers
6. Balsam strips: apparently on very low sand ridges
7. Black spruce, tamarack, and balsam; young conifer forest now largely covering north end of east section and in more advanced stage on strictly bog part of western section
8. Beaver meadow of river bottom
9. Alders of river bottom
10. Alder, willow stand on cut-over area adjacent to Grass River Flow and Silver Brook
11. Aspen, pine, balsam etc. of low sand ridge parallel to river
12. Hardwood type, mixed stand, mostly mature
13. Mixed conifer type, mature

NEW YORK. *State College of Forestry. Class of 1921*

1921 In Bray, William L., *History of forest development on an undrained sand plain in the Adirondacks*. Syracuse Univ., New York State College Forestry, Tech. Publ. no. 13, vol. 21, no. 2, inserted preceding p. 43.

- 1922 "[BELT TRANSECT OF A SALT MARSH AT COLD SPRING HARBOR, LONG ISLAND, NEW YORK]"
black and white [Sections 1 and 2, 1:330] [Sections 3 and 4, 1:320]

LEGEND

- | | |
|--------------------------------|---------------------------|
| 1. <i>Aspidium thelypteris</i> | 4. <i>Spartina patens</i> |
| 2. <i>Scirpus americanus</i> | 5. <i>Spartina glabra</i> |
| 3. <i>Juncus Gerardi</i> | |

Additional floristic information given by overprinted symbols

CONARD, HENRY S.

1924 "Second survey of the vegetation of a Long Island salt marsh." *Ecology*, vol. 5, pp. 380-381.

- 1922 "CHART OF COLD SPRING HARBOR SANDSPIT IN 1922"
black and white [1:260]

LEGEND

Indicates by symbols the occurrence of 32 species or groups of related species. *Spartina glabra alterniflora* and *Poa compressa* form the main vegetation zones.

CONARD, HENRY S.

1924 "Belt transect of Cold Spring Harbor sandspit (Long Island, N. Y.), 1922." *Ecology*, vol. 5, p. 260.

- [1928] "[BELT TRANSECT OF A SALT MARSH AT COLD SPRING HARBOR, LONG ISLAND, NEW YORK]"
black and white [Section 1, 1:200] [Section 2, 1:150]

LEGEND

- | | |
|-----------------------------------|------------------------------|
| 1. Grass society | 5. <i>Scirpus americanus</i> |
| 2. <i>Rubus</i> society | 6. <i>Spartina patens</i> |
| 3. <i>Typha latifolia</i> society | 7. <i>Juncus Gerardi</i> |
| 4. <i>Aspidium thelypteris</i> | |

Additional floristic information given by overprinted symbols.

CONARD, HENRY S. and GLADYS C. GALLIGAR

1929 "Third survey of a Long Island salt marsh." *Ecology*, vol. 10, pp. 332-333.

- 1930 "INDICATOR TYPE MAP OF PARTS OF LOTS 6 AND 7, RICHARD'S SURVEY TP. 27, T. AND C. PURCHASE, TOWN OF NEWCOMB—COUNTY OF ESSEX—STATE OF NEW YORK, EXPERIMENTAL FOREST AREA 150 ACRES, 1933"
black and white [1:12,000]

LEGEND

- | | |
|------------------------------------|----------------------------------|
| 1. <i>Viburnum</i> , <i>Oxalis</i> | 4. <i>Oxalis</i> , <i>Cornus</i> |
| 2. <i>Bazzania</i> , <i>Oxalis</i> | 5. Swamp |
| 3. <i>Viburnum</i> | |

HEIMBURGER, CARL C.

1934 *Forest-type studies in the Adirondack region*. Cornell Univ., Agr. Exp. Sta., Mem. no. 165, p. 46.

- [1930] "GROWTH AND DENSITY PLAN OF THE BLACK ROCK FOREST, CORNWALL-ON-THE-HUDSON, N. Y."

in color

1:12,000

LEGEND

- | | |
|------------------------------|---------------|
| 1. Hemlock and hardwood cove | 5. Sub-alpine |
| 2. Hardwood slope | 6. Alpine |
| 3. Gray birch and alder | 7. Cleared |
| 4. Hardwood cove | |

Forest types are subdivided into six age classes and six density classes

TYRON, HENRY H.

1930 *The Black Rock Forest*. Black Rock Forest Bull., no. 1, facing p. 14.

- [1931] "QUADRAT 78 BY 88 METERS, SHOWING THE RELATION OF GRASSLAND TO THE MYRICA"

black and white

[1:620, not 1:100 as stated]

LEGEND

- | | |
|--|--|
| 1. Forest (<i>Quercus-Carya-Acer</i>) | 4. <i>Robinia pseudo-acacia</i> forest |
| 2. Ecotone | 5. Dead grass |
| 3. Shrub belt (<i>Prunus serotina</i> and climbers) | 6. Grassland |

The distribution of 32 species is shown by overprinted symbols.

BLIZZARD, ALPHEUS W.

1931 "Plant sociology and vegetational change on High Hill, Long Island, New York." *Ecology*, vol. 12, p. 217.

- [1931] "GRASSLAND, SHRUB, AND FOREST REGIONS. TOPOGRAPHICAL SURVEY OF HIGH HILL WITH CONTOUR LINES SHOWING ELEVATIONS"

black and white

[incalculable]

LEGEND

- | | |
|---------------|--------------|
| 1. Woodland | 3. Grassland |
| 2. Shrub area | |

BLIZZARD, ALPHEUS W.

1931 "Plant sociology and vegetational change on High Hill, Long Island, New York." *Ecology*, vol. 12, p. 223.

[1933] "DIAGRAM OF VEGETATIVE ZONES [IN BERGEN SWAMP, GENNESEE COUNTY]"

black and white

[1:41,000]

LEGEND

- | | |
|--------------------|-----------------|
| 1. Open marl | 4. Pine-hemlock |
| 2. Secondary marl | 5. Beech-maple |
| 3. <i>Sphagnum</i> | |

STEWART, PAUL ALEXANDER and WILLIAM DAYTON MERREL

1937 "The Bergen Swamp: an ecological study." *Proc. Rochester Acad. Sci.*, vol. 8, p. 216. (The same zones, except *Sphagnum*, are shown at a larger scale [1:29,000] with the addition of topographic contours and other physical data on page 227.)

[1933] and 1948 "TYPES OF PLANT COVER IN SAGE BROOK AREA [EAST OF NORWICH IN CHENANGO COUNTY], BEFORE REFORESTATION [AND AFTER REFORESTATION, TWO MAPS]"

black and white

[1:12,000]

LEGEND

- | | |
|------------------------|-------------------------|
| 1. Deciduous woodland | 3. Pasture and cropland |
| 2. Coniferous woodland | 4. Mixed woodland |

NEW YORK. *State. Division of Lands and Forests*

1961 In Schneider, William J., and Gordon R. Ayer, *Effect of reforestation on streamflow in central New York*. U. S. Geol. Surv. Water-Supply Paper no. 1602, p. 23.

[1933] and 1948 "TYPES OF PLANT COVER IN THE SHACKHAM BROOK AREA [IN CORTLAND AND ONONDAGA COUNTIES], BEFORE REFORESTATION [AND AFTER REFORESTATION, TWO MAPS]"

black and white

[1:4,600]

LEGEND

- | | |
|------------------------|-------------------------|
| 1. Deciduous woodland | 3. Pasture and cropland |
| 2. Coniferous woodland | |

NEW YORK. *State. Division of Lands and Forests*

1961 In Schneider, William J., and Gordon R. Ayer, *Effect of reforestation on streamflow in central New York*. U. S. Geol. Surv. Water-Supply Paper no. 1602, p. 25.

[1933] "DIAGRAM OF DECODON POND AT WOODBURY BOG"

black and white

[incalculable]

LEGEND

- | | |
|--------------------------------------|---|
| 1. Open water | 4. <i>Cyperus</i> sp. [<i>C. erythrorhizus</i>] |
| 2. Bare mud | 5. <i>Decodon verticillatus</i> |
| 3. Miscellaneous plants near highway | 6. <i>Rubus allegheniensis</i> |
| | 7. <i>Acer rubrum</i> |

PATRICK, RUTH

1935 In Conard, Henry S., "The plant associations of Central Long Island, a study in descriptive plant sociology." *American Midland Naturalist*, vol. 16, p. 491.

[1934] "MAP OF CENTRAL LONG ISLAND [ROSLYN TO LAKE RONKONKOMA]"
black and white [1:490,000]

LEGEND

- | | |
|---------------------|-------------------------------------|
| 1. Hempstead Plains | 3. [Other types, not distinguished] |
| 2. Pine barrens | |

CONARD, HENRY S.

1935 "The plant associations of Central Long Island, a study in descriptive plant sociology." *American Midland Naturalist*, vol. 16, p. 434.

1934 "MAP SHOWING VEGETATIONAL AREAS OF THE ALLEGANY STATE PARK, N. Y., AND ADJACENT TERRITORY"
in color [1:62,500]

LEGEND

- | | |
|-----------------------|---------------------------------|
| 1. Sugar maple-beech | 4. Open or farm lands |
| 2. Oak forest types | 5. Mature timber [overprint] |
| 3. Aspen forest types | 6. Forest plantings [overprint] |

NEW YORK. *Ecological Botanical Survey*

1937 In Gordon, R. B., *Vegetational survey of Allegany State Park*. New York State Mus., Handb. no. 17, in pocket.

1935 "ARNOT FOREST, PROPERTY OF CORNELL UNIVERSITY, TOWN OF CAYUTA—COUNTY OF SCHUYLER, STATE OF NEW YORK"
black and white [1:66,600]

LEGEND

- | | |
|-----------------------------------|----------------------|
| 1. Aspen-birch | a. Sugar maple-beech |
| a. Aspen | b. Yellow birch |
| b. Birch | 3. Chestnut oak |
| 2. Sugar maple-beech-yellow birch | 4. Open field |

SPAETH, J. N. and C. H. DIEBOLD

1938 *Some interrelationships between soil characteristics, water tables, soil temperature, and snow cover in the forest and adjacent open areas in south-central New York*. Cornell Univ. Agr. Exp. Sta., Mem. no. 213, p. 38.

[1935] and 1948 "TYPES OF PLANT COVER IN COLD SPRING BROOK AREA [IN DELAWARE COUNTY], BEFORE REFORESTATION [AND AFTER REFORESTATION, TWO MAPS]"
black and white [1:7,400]

LEGEND

- | | |
|------------------------|-------------------------|
| 1. Deciduous woodland | 3. Pasture and cropland |
| 2. Coniferous woodland | 4. Mixed woodland |

NEW YORK. *State. Division of Lands and Forests*

1961 *In* Schneider, William J., and Gordon R. Ayer, *Effect of reforestation on streamflow in central New York*. U. S. Geol. Surv. Water-Supply Paper no. 1602, p. 24.

- [1937] "[GENERALIZED VEGETATION MAP OF] CATTARAUGUS COUNTY, N. Y."
black and white [1:770,000]

LEGEND

1. Tamarack-black spruce bog forests
2. White pine-American elm swamp forests
3. Mixed mesophytic and oak-chestnut-white pine forests
4. Hemlock-white pine-northern hardwood forest

GORDON, ROBERT B.

1940 *The primeval forest types of southwestern New York*. New York State Mus., Bull. no. 321, p. 75.

- [1937] "NATURAL VEGETATION AREAS OF CATTARAUGUS COUNTY, NEW YORK"
in color 1:125,000

LEGEND

1. Hemlock-white pine-northern hardwood forest (beech, yellow birch, sugar maple, basswood, etc.)
2. White pine-American elm swamp forest (including small areas of tamarack-black spruce bog forest)
3. Mixed mesophytic forest and variants
4. Oak-chestnut forest and variants

GORDON, ROBERT B.

1940 *The primeval forest types of southwestern New York*. New York State Mus., Bull. no. 321, in pocket.

- 1938 "VEGETATION MAP, DUTCHESS COUNTY, NEW YORK"
black and white [1:38,100]

LEGEND

- | | |
|------------------------|--------------------|
| 1. Open field | 9. Swamp shrub |
| 2. Shrub | 10. Swamp forest |
| 3. Juniper | 11. Marginal shrub |
| 4. Gray birch | 12. Marginal tree |
| 5. Pine | 13. Moist meadow |
| 6. Oak[-hickory] | 14. Flood plain |
| 7. Beech-maple-hemlock | 15. Bog shrub |
| 8. Sedge | 16. Bog forest |

ROBERTS, EDITH ADELAIDE, HELEN WILKINSON REYNOLDS and MILDRED D. SOUTHWICK

1938 *In* Roberts, Edith Adelaide, and Helen Wilkinson Reynolds,

The role of plant life in the history of Dutchess County. Poughkeepsie, New York, Dutchess County Planning Board, 2 sheets in pockets.

[1943] "VEGETATION MAP OF THE EDMUND NILES HUYCK PRESERVE"

black and white

[1:22,300]

LEGEND

- I. Early seral stages
 - A. Hydrosere
 - 1. Emergent aquatic vegetation
 - 2. Alder or willow
 - B. Xerosere
 - 3. Old fields, grass-herb stages
 - 4. Old fields, mixed shrub stages
 - 5. Old fields, young white pine
 - 6. Paper birch, aspen, or birch-aspen
 - 7. Sugar maple-hop hornbeam
 - C. Artificial reforestation
 - 8. White spruce, 10-15 years old
 - 9. Red pine, 10-15 years old
 - 10. Other conifers
- II. Intermediate seral stages: intermediate forests
 - A. Floodplain and swamp forests
 - 11. *Sphagnum* bog (yellow birch, red maple, hemlock)
 - 12. Semi-bog forest (*Ostrya*, *Carpinus*, yellow birch, maples)
 - 13. Floodplain forest, ash-elm-maple-basswood
 - 14. Floodplain forest with hemlock
 - 15. Aspen-red maple-hemlock
 - B. Upland forests
 - 16. Young second-growth, mostly white ash-sugar maple
 - 17. Hedgerows, mostly ash-maple
 - 18. Paper birch-ash-sugar maple
 - 19. Paper birch-hemlock
 - 20. Sugar maple-red oak
 - 21. Beech-sugar maple
 - 22. Beech-maple-hemlock
- III. Late seral stages
 - 23. Hemlock-yellow birch (edaphic)
 - 24. Hemlock-white pine
 - 25. Hemlock
 - 26. Beech-hemlock (probable climax)

ODUM, EUGENE P.

1943 "The vegetation of the Edmund Niles Huyck Preserve [Rensselaerville], New York." *American Midland Naturalist*, vol. 29, p. 73.

[1947] "FOREST TYPE MAP OF NEW YORK STATE"

black and white

[1:3,500,000]

LEGEND

- 1. Oak-sweet gum-persimmon forest
- 2. Oak-hickory-chestnut forest
- 3. Beech-maple-hemlock forest
- 4. Hardwood-spruce forest
- 5. Spruce-balsam forest
- 6. Alpine meadows

HOUSE, HOMER D.

1947 *In* Krieger, Louis C. C., *The mushroom handbook*. New York, The Macmillan Co., facing p. 62.

- [1950] "AUSSCHNITT AUS EINEM STÄDTISCHEN PARK IN ROCHESTER, N. Y."
in color 1:2,000

LEGEND

Sixteen colors representing 43 physiognomic groupings

KÜCHLER, A. W.

1950 "Physiognomische Kartierung der Vegetation." *Petermanns Geogr. Mitteilungen*, vol. 94, no 1, Tafel 2.

- [1952] "MAJOR FOREST TYPES IN NEW YORK"
in color [1:2,500,000]

LEGEND

- | | |
|-------------------|----------------------|
| 1. White-red pine | 5. Elm-ash-maple |
| 2. Spruce-fir | 6. Maple-beech-birch |
| 3. Pitch pine | 7. Aspen-birch |
| 4. Oak-hickory | 8. Nontyped |

ARMSTRONG, GEORGE R. and JOHN C. BJORKBOM

1956 *The timber resources of New York*. Northeastern Forest Exp. Sta., unnumbered publ., inserted at back.

- [1952] "[AREA NEAR RAQUETTE LAKE, ADIRONDACK STATE PARK]"
in color [1:72,400]

LEGEND

- | | |
|-------------------------|-------------------------|
| 1. Spruce-fir | 3. Hardwoods-spruce-fir |
| 2. Spruce-fir-hardwoods | 4. Northern hardwoods |

WESTVELD, MARINUS

1952 *A method of evaluating forest site quality from soil, forest cover, and indicator plants*. Northeastern Forest Exp. Sta., Sta. Paper no. 48, p. 4.

- [1954] "NEW YORK FOREST TYPES"
black and white [1:6,100,000]

LEGEND

- | | |
|-------------------------|----------------|
| 1. White-red-pitch pine | 4. Oak-hickory |
| 2. Maple-birch-beech | 5. Spruce-fir |
| 3. Shortleaf pine | |

ANON.

1954 *New York forest facts*, 1954 edition. Washington, New York Forest Industries Committee, in cooperation with Amer. Forest Products Industries, Inc., p. 6.

- [1955] "BATHYMETRIC CHART OF HOME POND AND TOPOGRAPHY OF SURROUNDING AREAS [GARDINERS ISLAND, NEW YORK]"
black and white 1;6,250

LEGEND

- | | |
|------------------|----------------------|
| 1. Barrier beach | 3. Forest |
| 2. Salt marsh | 4. Cultivated fields |

CARRIKER, MELBOURNE ROMAINE

1959 "The role of physical and biological factors in the culture of *Crassostrea* and *Mercenaria* in a salt-water pond." *Ecological Monographs*, vol. 29, p. 224.

- [1957] "TYPE MAP OF THE STUDY AREA [IN THE TULLY FOREST, COURTLAND COUNTY], SHOWING THE LOCATION OF THE OBSERVATION LINES"
black and white [1:15,400]

LEGEND

- | | |
|----------------------------|-----------------------------|
| 1. Red pine | 7. Mixed hardwoods |
| 2. Pruned red pine | 8. Brushland |
| 3. White pine | 9. Pasture |
| 4. Nor'y spruce | 10. Mixed hdwds. "blowdown" |
| 5. Nor'y spruce-white pine | 11. Hedgerow |
| 6. White spruce-larch | |

BAILEY, JAMES A. and MAURICE M. ALEXANDER

1960 "Use of closed conifer plantations by wildlife." *New York Fish and Game Jour.*, vol. 7, p. 137.

- 1957 "HARVARD BLACK ROCK FOREST"
black and white 1:12,000

LEGEND

- | | |
|--------------------------|--|
| 1. Mixed hardwoods | 5. <i>Quercus ilicifolia</i> |
| 2. Hemlock—hardwoods | 6. <i>Quercus alba</i> — <i>Carya glabra</i> |
| 3. <i>Quercus rubra</i> | 7. Plantations |
| 4. <i>Quercus prinus</i> | |

ROSS, PHILIP

1958 *Microclimatic and vegetational studies in a cold-wet deciduous forest*. Cornwall on the Hudson, N. Y., Harvard Black Rock Forest. Black Rock Forest Papers, no. 24, p. 25.

- 1958 "AMERICAN MUSEUM OF NATURAL HISTORY, FIELD STATION & WILDLIFE SANCTUARY (NEAR DIX HILLS, L.I., N.Y.), VEGETATION COVER TYPES"
black and white [1:5500]

LEGEND

- I. Herbaceous
1. Grassland (except lawns)
 2. Annual & perennial weed field
- II. Shrubby

-
3. Shrubland (typically open)
- III. Arborescent
4. Shrubby woodland (canopy open)
 5. Low woodland (canopy closed)
 6. Pine plantation
 7. Spruce-fir plantation
 8. Irregular, shrubby woodland (native and ornamental species are intermingled)
 9. Irregular forest remnant
 10. Wooden fence row
 11. Black oak-white oak forest
- IV. [Other]
12. Yard or lawn

MARTIN, WILLIAM E.

1958 *Description of vegetation cover types of the American Museum of Natural History Field Station and Wildlife Sanctuary, Huntington, New York*. New York, Amer. Mus. Nat. Hist., inserted at back.

NORTH CAROLINA

1852 and 1872 "CHANGES IN VEGETATION AND PHYSIOGRAPHY IN THE CAPE HATTERAS AREA"

black and white

[1:56,000]

LEGEND

1. Wooded

3. Sand

2. Marsh

UNITED STATES. *Coast Survey*

1959 In Brown, Clair A., *Botanical reconnaissance of the Outer Banks of North Carolina*. Coastal Stud. Inst., Louisiana State Univ., Tech. Rept. no. 8, pt. c, p. 56.

1855 "COLTON'S NORTH CAROLINA"

in color

[1:2,200,000]

LEGEND

1. Region of coast growth

3. Region of oaks

2. Region of long leaf pines

CURTIS, M. A.

1860 *Geological and natural history survey of North Carolina, part III, botany: containing a catalogue of the plants of the state, with descriptions and history of the trees, shrubs, and woody vines*. Raleigh, W. W. Holden, inserted at back.

1881 "MAP OF NORTH CAROLINA SHOWING THE DISTRIBUTION OF THE PINE FORESTS WITH SPECIAL REFERENCE TO THE LUMBER INDUSTRY"

in color

[1:2,400,000]

LEGEND

1. Long leaved pine (*Pinus palustris*)

2. Loblolly pine (*P. taeda*) mixed with long leaved pine (*P. palustris*) of relatively small size and value

3. Region from which merchantable pine has been cut

SARGENT, CHARLES SPRAGUE

1884 "Report on the forests of North America (exclusive of Mexico)." U. S. Dept. Interior, Census Office, *Tenth Census of the U. S.*, vol. 9, following p. 514.

[1905] "LINVILLE PARK, MITCHELL, WATAUGA, AND CALDWELL COUNTIES, NORTH CAROLINA, SHOWING FOREST TYPES"

in color

[1:73,100]

LEGEND

- | | |
|----------------------|------------------|
| 1. Hemlock bottom | 4. Mountain type |
| 2. Chestnut slope | 5. Cleared |
| 3. Sugar maple slope | |

REED, FRANKLIN W.

1905 *Report on an examination of a forest tract in western North Carolina.* U. S. Dept. Agr., Bur. Forestry, Bull. no. 60, facing p. 8.

- [1909] "FOREST CONDITIONS, WESTERN NORTH CAROLINA"
in color [1:500,000]

LEGEND

- | | |
|----------------|------------------------|
| 1. Spruce type | 2. Mixed hardwood type |
|----------------|------------------------|

HOLMES, J. S., W. B. WILLEY and A. W. WILLIAMSON

1911 *In Holmes, J. S., Forest conditions in western North Carolina.* North Carolina Geol. and Econ. Surv., Bull. no. 23, facing p. 14.

- [1917] "SHACKLEFORD BANK"
black and white [1:43,000]

LEGEND

- | | |
|---------------------|---------------|
| 1. Sand strand | 4. Tidal flat |
| 2. Thicket woodland | 5. Woodland |
| 3. Marsh | |

LEWIS, I. F.

1917 *The vegetation of Shackleford Bank.* North Carolina Geol. and Econ. Surv., Econ. Paper no. 46, facing p. 9.

- [1928] "VEGETATIONAL MAP OF BOG AREA AND ENVIRONS [NEAR BURGAW, PENDER COUNTY], SHOWING LOCATION OF TRANSECTS"
black and white [1:12,670]

LEGEND

- | | |
|--|---|
| 1. <i>Campulosus</i> and <i>Panicum</i>
consocias | 3. <i>Ilex-Pinus serotina</i> consocias |
| 2. <i>Ilex-Pinus taeda</i> consocias | 4. <i>Quercus-Hicoria</i> consocias |
| | 5. <i>Cyrilla-Nyssa</i> consocias |

WELLS, B. W. and I. V. SHUNK

1928 *A southern upland grass-sedge bog, an ecological study.* North Carolina Agr. Exp. Sta., Tech. Bull. no. 32, p. 10.

- [1928] "VEGETATIONAL MAP OF STREAM HEAD SHOWING TRANSECTS WITH STATION AND WELL NUMBERS [NEAR BURGAW, PENDER COUNTY]"
black and white [1:4,200]

LEGEND

- | | |
|----------------------|--------------------|
| 1. <i>Campulosus</i> | 4. <i>Quercus</i> |
| 2. <i>Panicum</i> | 5. <i>Cyrilla</i> |
| 3. <i>Ilex</i> | 6. <i>Ludwigia</i> |

NORTH CAROLINA

WELLS, B. W. and I. V. SHUNK

1928 *A southern upland grass-sedge bog, an ecological study.* North Carolina Agr. Exp. Sta., Tech. Bull. no. 32, p. 34.

1931 "FOREST COVER MAP OF THE DURHAM DIVISION—DUKE FOREST"
in color [1:9600]

LEGEND

- | | |
|---------------------------------|---------------------------------|
| A. [Pine types] | 8. White oak |
| 1. Loblolly pine | 9. White oak-post oak |
| 2. Shortleaf pine | 10. White oak-black oak-red oak |
| 3. Loblolly pine-shortleaf pine | 11. Post oak-blackjack oak |
| B. Pine-hardwood types | D. Bottomland hardwood types |
| 4. Loblolly pine-oak | 12. Red gum-yellow poplar |
| 5. Shortleaf pine-oak | 13. River birch-sycamore |
| 6. Loblolly pine-red gum | E. [Other] |
| 7. Shortleaf pine-red gum | 14. Open lands |
| C. Upland hardwood types | |

KORSTIAN, CLARENCE F. and WILLIAM MAUGHAN

1935 *The Duke Forest, a demonstration and research laboratory.* Duke University, Forestry Bull. no. 1, in pocket. Revised, 1952 by *Anon.*, and separately published. Durham, North Carolina, Duke University, School of Forestry.

1931 "FOREST COVER MAP OF THE HILLSBORO DIVISION—DUKE FOREST"
in color [1:9600]

LEGEND

- | | |
|---------------------------------|-----------------------------------|
| A. [Pine types] | 5. Virginia pine-southern red oak |
| 1. Loblolly pine-shortleaf pine | C. [Hardwood types] |
| 2. Shortleaf pine | 6. White oak-black oak-red oak |
| 3. Shortleaf pine-Virginia pine | 7. Red gum-yellow poplar |
| B. Pine-hardwood types | D. [Other] |
| 4. Shortleaf pine-oak | 8. Open land |

KORSTIAN, CLARENCE F. and WILLIAM MAUGHAN

1935 *The Duke Forest, a demonstration and research laboratory.* Duke University, Forestry Bull. no. 1, in pocket. Revised, 1944 by *Anon.*, and separately published. Durham, North Carolina, Duke University, School of Forestry.

1931 "FOREST COVER MAP OF THE NEW HOPE CREEK DIVISION—DUKE FOREST"
in color [1:9600]

LEGEND

- | | |
|---------------------------------|---------------------------|
| A. [Pine types] | 5. Shortleaf pine-oak |
| 1. Loblolly pine | 6. Loblolly pine-red gum |
| 2. Shortleaf pine | 7. Shortleaf pine-red gum |
| 3. Loblolly pine-shortleaf pine | C. Upland hardwood types |
| B. Pine-hardwood types | 8. White oak-post oak |
| 4. Loblolly pine-oak | 9. White oak |

- | | |
|------------------------------|--------------------------|
| 10. Post oak-blackjack oak | 12. River birch-sycamore |
| D. Bottomland hardwood types | E. [Other] |
| 11. Red gum-yellow poplar | 13. Open land |

KORSTIAN, CLARENCE F. and WILLIAM MAUGHAN

1935 *The Duke Forest, a demonstration and research laboratory.* Duke University, Forestry Bull. no. 1, in pocket. Revised, 1952 by *Anon.*, and separately published. Durham, North Carolina, Duke University, School of Forestry.

- [1939] "MAP OF SMITH ISLAND SHOWING DISTRIBUTION OF LIVE OAK (*QUERCUS VIRGINIANA*) AND OTHER PRINCIPAL TYPES OF VEGETATION"
black and white [1:48,700]

LEGEND

- | | |
|--------------------|----------------|
| 1. Live oak forest | 3. Strand sand |
| 2. Salt marsh | |

WELLS, B. W.

1939 "A new forest climax: the salt spray climax of Smith Island, N. C." *Bull. Torrey Bot. Club*, vol. 66, p. 631.

- 1940 "MAJOR FOREST TYPES, STATE OF NORTH CAROLINA"
in color 1:1,000,000

LEGEND

- | | |
|-----------------------------|----------------------------|
| 1. Longleaf pine | 5. Virginia pine-hardwoods |
| 2. Shortleaf pine-hardwoods | 6. Mountain hardwoods |
| 3. Loblolly pine-hardwoods | 7. Bottomland hardwoods |
| 4. Pond pine-hardwoods | 8. Marsh |

UNITED STATES. *Forest Service*

1940 Appalachian [now Southeastern] Forest Experiment Station. Reprinted, 1944 in Cruikshank, J. W., *North Carolina forest resources and industries.* U. S. Dept. Agr., Misc. Publ. no. 533, inserted at back.

- [1942] "ROUGH CONTOUR MAP OF PILOT MOUNTAIN"
black and white [1:64,400]

LEGEND

- | | |
|----------------------------|-----------------|
| 1. Chestnut oak-black pine | 4. Mixed forest |
| 2. Chestnut oak-heath | 5. Oak-hickory |
| 3. Scarlet oak | |

WILLIAMS, RUBY M. and H. J. OOSTING

1944 "The vegetation of Pilot Mountain, North Carolina: a community analysis." *Bull. Torrey Bot. Club*, vol. 71, p. 24.

- [1945] "HOLLY SHELTER STATE GAME REFUGE"
black and white [1:88,400]

LEGEND

- | | |
|----------------------------------|---------------------------------|
| 1. <i>Andropogon glomeratus</i> | 10. <i>Magnolia virginiana</i> |
| 2. <i>Aristida stricta</i> | 11. <i>Myrica cerifera</i> |
| 3. <i>Arundinaria tecta</i> | 12. <i>Persea palustris</i> |
| 4. <i>Chamaecyparis thyoides</i> | 13. <i>Quercus catesbaei</i> |
| 5. <i>Clethra alnifolia</i> | 14. Savanna |
| 6. <i>Cyrilla racemiflora</i> | 15. <i>Zenobia nuda</i> |
| 7. <i>Gordonia lasianthus</i> | 16. River slope hardwood forest |
| 8. <i>Ilex coriacea</i> | 17. Dense pines |
| 9. <i>Lyonia lucida</i> | |

WELLS, B. W.

1946 *Vegetation of Holly Shelter Wildlife Management Area*. Raleigh, North Carolina Dept. Conserv. and Devel., Div. Game and Inland Fisheries, State Bull. no. 2, pp. 20-21.

- [1946] "MAP OF JEROME BOG SHOWING DISTRIBUTION OF PLANT COMMUNITIES AND LOCATION OF THE TRANSECTS [JEROME, NORTH CAROLINA]"
black and white [1:73,000]

LEGEND

- | | |
|----------------|----------------|
| 1. Low shrub | 5. White cedar |
| 2. Tall shrub | 6. Sand |
| 3. Bay forest | 7. Bog |
| 4. Pine forest | 8. Swamp |

BUELL, MURRAY F.

1946 "Jerome Bog, a peat-filled 'Carolina bay.'" *Bull. Torrey Bot. Club*, vol. 73, p. 26.

- [1947] "COMMUNITIES ON [OLIVINE] DEPOSITS [NORTH CAROLINA]"
black and white [1:11,000]

LEGEND

- | | |
|-------------------------------|--------------------------|
| 1. Maple-beech-birch-magnolia | 5. Alder-sedge-smartweed |
| 2. Pine- <i>Andropogon</i> | 6. Grass-weed |
| 3. Oak-shrub | 7. Oak-grass |
| 4. Pine-oak | 8. Corn |

RADFORD, ALBERT E.

1948 "The vascular flora of the olivine deposits of North Carolina and Georgia." *Jour. Elisha Mitchell Sci. Soc.*, vol. 64, p. 49.

- [1950] "WILDLIFE COVER MAP OF NORTH CAROLINA"
in color 1:500,000

LEGEND

- | | |
|-----------------------------------|--------------------------------|
| 1. Beach and coastal hardwoods | 6. Shortleaf pine |
| 2. Bottomland and swamp hardwoods | 7. Virginia pine |
| 3. Tidal marsh | 8. Mixed yellow pine-hardwoods |
| 4. Spruce-balsam | 9. Pond pine-pocosin |
| 5. Loblolly pine-hardwoods | 10. Longleaf pine-hardwoods |
| | 11. Mountain hardwoods |

The legend is expanded further in the text and includes type numbers corresponding to those in "Forest cover types of the eastern United States," third edition, revised, published by the Society of American Foresters in 1940.

NORTH CAROLINA. *Wildlife Resources Commission*

1953 *In* Hamnett, William L., and David C. Thornton, *Tarheel wildlife*. Raleigh, North Carolina Wildlife Resources Comm., Federal Aid in Wildlife Restoration Project, North Carolina W-30-R, in pocket.

[1952] "NORTH CAROLINA FOREST TYPES"
black and white [1:9,200,000]

LEGEND

- | | |
|----------------------------|------------------------|
| 1. Upland hardwoods | 4. Longleaf-slash pine |
| 2. Bottomland hardwoods | 5. Virginia pine |
| 3. Shortleaf-loblolly pine | |

ANON.

1952 *North Carolina forest facts*, 1952 edition. Washington, Amer. Forest Products Industries, Inc., p. 3.

1955 "MAJOR FOREST TYPES—NORTH CAROLINA"
in color [1:1,900,000]

LEGEND

- | | |
|------------------------|----------------------------------|
| 1. Longleaf-slash pine | 6. White pine-hemlock |
| 2. Loblolly pine | 7. Hardwood-pine |
| 3. Shortleaf pine | 8. Hard maple-beech-yellow birch |
| 4. Pond pine | 9. Oak-hickory-scrub oak |
| 5. Virginia pine | 10. Oak-gum-cypress |

LARSON, ROBERT W.

1957 *North Carolina timber supply, 1955*. Southern Forest Exp. Sta., Forest Surv. Release no. 49, inserted at back.

[1956] "COMPARTMENT 21 [BENT CREEK EXPERIMENTAL FOREST]"
black and white [1:6,600]

LEGEND

- | | |
|----------------------|-----------------------|
| 1. Cove hardwoods | 3. Pure yellow-poplar |
| 2. Long rotation oak | |

RENSHAW, JAMES F.

1956 *The Southern Appalachian Research Center*. Southeastern Forest Exp. Sta., unnumbered publication, p. 10.

[1957] "REGIONAL FOREST COVER TYPES ON COWEETA WATERSHEDS"
black and white [1:40,900]

LEGEND

- | | |
|-------------------|-----------------------|
| 1. Oak-hickory | 3. Pine-hardwoods |
| 2. Cove hardwoods | 4. Northern hardwoods |

NORTH CAROLINA

DILS, ROBERT E.

1957 *A guide to the Coweeta hydrologic laboratory*. Southeastern Forest Exp. Sta., unnumbered publication, p. 5.

[1957] "FOREST TYPES AND GRAZING USE ON THE 145-ACRE WOODLAND GRAZING EXPERIMENTAL WATERSHED"

black and white

[1:16,900]

LEGEND

1. Cove-hardwood
2. Oak-hickory

3. Pine-hardwoods

DILS, ROBERT E.

1957 *A guide to the Coweeta hydrologic laboratory*. Southeastern Forest Exp. Sta., unnumbered publ., p. 24.

NORTH DAKOTA

- 1953 "DEVILS LAKE TEST AREA VEGETATION"
green, black, and white [1:123,000]

LEGEND

- | | |
|--------------|------------------------------|
| 1. Woodland | 3. Grassland and grainfields |
| 2. Marshland | |

DE PERCIN, FERNAND *and* EDGAR BINGHAM

1955 *Handbook of Devils Lake, North Dakota, environment.*
Natick, Massachusetts, U. S. Army, Headquarters Quartermaster Res.
Develop. Center, Environmental Protection Div., Tech. Rept. EP-8, p.
14.

- 1954 "NATURAL FOREST CONCENTRATIONS OF NORTH DAKOTA"
black and white [1:2,700,000]

LEGEND

- | | |
|---------------------------|------------------|
| 1. Juniper-ponderosa pine | 4. Bur oak |
| 2. Juniper | 5. Ash-elm |
| 3. Ash-elm-cottonwood | 6. Aspen-bur oak |

WARNER, JOHN R. *and* CLARENCE D. CHASE

1956 *The timber resource of North Dakota.* Lake States Forest
Exp. Sta., Sta. Paper no. 36, p. 10.

OHIO

- 1800 "FORESTED CONDITIONS OF OHIO ABOUT THE YEAR 1800"
black and white [1:3,700,000]
- LEGEND
- | | |
|--------------------|-------------------------------------|
| 1. Original forest | 4. Small prairie (Indian burnings?) |
| 2. Peat bogs | |
| 3. Prairie | |
- TRANSEAU, EDGAR NELSON *and* HOMER C. SAMPSON
1932 *In* Sherman, C. E., *Ohio stream flow. Part 1. Areas of lakes and drainage basins; run-off records prior to 1921.* Ohio State Univ. Studies, vol. 1, no. 5 (Engin. Exp. Sta. Bull. no. 73), p. 148.
- [1800] "NATIVE OAK AND BEECH FOREST IN RELATION TO THE MORAINES SYSTEM OF OHIO"
black and white [1:3,400,000]
- LEGEND
- | | |
|--------|----------|
| 1. Oak | 2. Beech |
|--------|----------|
- SEARS, PAUL BIGELOW
1925 "The natural vegetation of Ohio." *Ohio Journal of Science*, vol. 25, p. 148.
- [1800] "MAP OF THE OHIO VIRGIN FOREST"
black and white [1:2,500,000]
- LEGEND
1. Oak [white oak, hickory, bur oak, black oak; also chestnut-chestnut oak]
 2. Beech [pure stands of beech, also beech-maple with (often) more or less red oak and white ash]
 3. Ash [black ash-white ash, usually with elm, and often with red maple]
- SEARS, PAUL BIGELOW
1925 "The natural vegetation of Ohio." *Ohio Journal of Science*, vol. 25, p. [142]. Reproduced, [1:3,500,000], with inclusion of physiographic boundaries, *Ibid.*, vol. 25, p. 145.
- [1800] "GENERAL BOUNDARIES OF ORIGINAL MAJOR FOREST TYPES"
black and white [1:2,100,000]
- LEGEND
1. Beech and maple

2. Mixed oak with hickory and chestnut (pine in southeastern counties)
3. Oak and hickory (with prairie openings)
4. Swamp forest (elm, ash, and maple in northwest; pin oak in southwest)

Data, in part, from Sears (Ohio [1800]) and Gordon (United States, central region [1932])

ANON.

1944 In Chapman, Arthur G., "Original forests." In Diller, Oliver D. (editor-in-chief), *Ohio's forest resources. Progress report based on a survey conducted during 1939-1943 and a presentation of a recommended long-range forestry program for Ohio.* Ohio Agr. Exp. Sta., Forestry Publ. no. 76, p. [78]. Reprinted, 1953 [1:2,800,000], in Wright, Alfred J., *Economic geography of Ohio.* State of Ohio, Dept. Nat. Resources, Div. Geol. Surv., Bull. no. 50 (fourth series), p. 152.

[1800] "ORIGINAL VEGETATION OF THE REGION ABOUT COLUMBUS"

black and white

[1:550,000]

LEGEND

- | | |
|-----------------------------|------------------------|
| 1. Beech-maple forest | 5. Swamp forest |
| 2. Oak-maple forest | 6. Bur oak forest |
| 3. Oak-hickory forest | 7. Prairie association |
| 4. Oak openings association | |

TRANSEAU, EDGAR NELSON and HOMER C. SAMPSON

1930 In Transeau, Edgar Nelson, "Original vegetation of the region about Columbus." In Peattie, Roderick (ed.), *Columbus, Ohio, an analysis of a city's development.* Columbus, Ohio, Industrial Bureau of Columbus Chamber of Commerce, p. 17.

[1819] "ORIGINAL VEGETATION OF VAN WERT COUNTY"

black and white

[1:34,000]

LEGEND

- | | |
|-----------------------|-------------------|
| 1. Lake plain forest | 4. Moraine forest |
| 2. Wet beech forest | 5. Treeless areas |
| 3. Beech-maple forest | |

GOOD, E. E.

1961 "The original vegetation of Van Wert County, Ohio." *Ohio Journal of Science*, vol. 61, p. 157.

[1820] "OHIO PRAIRIES"

black and white

[1:4,800,000]

LEGEND

1. [Prairies]

TRANSEAU, EDGAR NELSON and ALVIN STAFFAN

1960 In Gilfillan, Merrill C., "Prairie hunting in Ohio." *Ohio Conservation Bulletin*, vol. 24, no. 3, p. 18.

- 1820 "MAP OF OHIO INDICATING PHYSIOGRAPHIC BOUNDARIES AND VEGETATIONAL AREAS [VIRGIN FOREST 1798-1820]"

black and white

[1:3,600,000]

LEGEND

- | | |
|-----------------------|-------------------------|
| 1. Beech-maple | 4. Southeastern complex |
| 2. Ash-elm-oak-linden | 5. Chestnut |
| 3. White oak | |

SEARS, PAUL BIGELOW

1926 *In* Braun, E. Lucy, and Lynds Jones, "Ohio." *In* Shelford, Victor E. (ed.), *Naturalist's guide to the Americas*. Baltimore, Williams & Wilkins Co., facing p. 354.

- [1850] "POSITION OF THE TREELESS AREAS OF NATURAL VEGETATION IN OHIO"

black and white

[1:3,500,000]

LEGEND

- | | |
|----------------|----------------|
| 1. Prairie | 5. Barren |
| 2. Bog | 6. Oak opening |
| 3. Wet prairie | 7. Swamp |
| 4. Dry prairie | |

SEARS, PAUL BIGELOW

1926 "The natural vegetation of Ohio." *Ohio Journal of Science*, vol. 26, p. 129.

- [1903] "[MAP OF BIG SPRING PRAIRIE IN HANCOCK, SENECA, AND WYANDOT COUNTIES, OHIO]"

black and white

[1:36,000]

LEGEND

- | | |
|----------------------------------|--|
| 1. Big Spring Prairie | 7. Woods showing settling of soil by exposed roots |
| 2. Wooded clay islands | 8. Natural poplar thicket |
| 3. Wooded sand dunes | 9. Woods |
| 4. Wooded burned area | 10. [Simple dunes] |
| 5. Wooded limestone island | 11. [Miniature dune complex] |
| 6. Tree seedlings on burned area | |

BONSER, THOMAS A.

1903 *Ecological study of Big Spring Prairie, Wyandot County, Ohio*. Ohio State Acad. Sci., Spec. Papers no. 7, frontispiece.

- [1903] "[MAP OF THE SOUTHERN PORTION OF THE EAST ARM OF BIG SPRING PRAIRIE, WYANDOT COUNTY, OHIO]"

black and white

[1:8,000]

LEGEND

- | | |
|-------------------------|---|
| 1. [Big Spring Prairie] | 7. Heath on repeated slight burns |
| 2. Woods | 8. Natural meadow, partly burned over a number of years ago |
| 3. Wooded clay island | 9. Burned area 1897 |
| 4. Ash trees | 10. Pasture. Formerly cultivated |
| 5. <i>Populus</i> | 11. Under cultivation |
| 6. <i>Acer</i> | |

BONSER, THOMAS A.

1903 *Ecological study of Big Spring Prairie, Wyandot County, Ohio.* Ohio State Acad. Sci., Spec. Papers no. 7, p. 47.

- [1907] "GENERALIZED ECOLOGICAL MAP OF CEDAR POINT [ERIE COUNTY, OHIO]"
black and white [1:79,000]

LEGEND

- | | |
|---------------|---------------|
| 1. Marsh | 4. Forest |
| 2. Dunes | 5. Sand ridge |
| 3. Sand plain | |

JENNINGS, OTTO E.

1908 "An ecological classification of the vegetation of Cedar Point. *Ohio Naturalist*, vol. 7, p. 296.

- 1910 "MAP OF CRANBERRY ISLAND [BUCKEYE LAKE]"
black and white [1:3500, not 1:1200 as stated]

LEGEND

- | | |
|-------------------|-----------------|
| 1. <i>Decodon</i> | 2. <i>Typha</i> |
|-------------------|-----------------|

DACHNOWSKI, ALFRED

1911 "The vegetation of Cranberry Island (Ohio) and its relations to the substratum, temperature, and evaporation." *Botanical Gazette*, vol. 52, p. 25.

- [1910] "MAP OF ORCHARD ISLAND [BUCKEYE LAKE]: PLANT SOCIETIES"
black and white [1:1,400]

LEGEND

- | | |
|---|-------------------------------------|
| 1. <i>Nelumbo</i> society | 6. Shrub society |
| 2. <i>Polygonum-Nelumbo</i> society | 7. Forest society |
| 3. <i>Polygonum-Nelumbo-Typha</i> society | 8. <i>Hibiscus</i> society |
| 4. <i>Polygonum-Typha-Bidens</i> society | 9. <i>Polygonum-Scirpus</i> society |
| 5. <i>Hibiscus-Typha</i> society | 10. Sedge society |
| | 11. Beach without vegetation |

DETMERS, FREDA

1910 "A floristic survey of Orchard Island." *Ohio Naturalist*, vol. 11, p. 204.

- 1920 "MAP OF SCIOTO COUNTY FOREST SURVEY"
in color 1:187,500

LEGEND

- | | |
|-----------------------------|-----------------|
| 1. Mixed hardwoods | 3. Pine |
| 2. Mixed hardwoods and pine | 4. Tilled areas |

The types are subdivided into four diameter classes and 5 classes based on the board feet of timber per acre

SECRET, EDMUND

1920 Department of Forestry, Ohio Agricultural Experiment Station.

- [1926] "CONTOUR MAP OF CEDAR CLIFFS WITH POSITION OF THE DIFFERENT COMMUNITIES"
black and white [1:1,300]

LEGEND

- | | |
|---|-------------------------------|
| 1. Deciduous forest | 4. Community on slump of 1921 |
| 2. <i>Andropogon-Silphium-Sorghastrum</i> association | 5. Prairie-red cedar complex |
| 3. <i>Euphorbia</i> community | 6. Oak-maple community |
| | 7. Black locust community |

IRWIN, N. MILDRED

1929 "The Cedar Cliffs prairie opening of the Cincinnati region." *Proc. Ohio Acad. Sci.*, vol. 8, pt. 5, Spec. Paper no. 21, p. 204.

- [1927] "MAP OF RECONSTRUCTED FOREST IN THE BONO AREA [LUCAS COUNTY AND ADJACENT OTTAWA COUNTY]"
black and white [1:76,000]

LEGEND

1. Muck, formerly marsh
2. The elm-ash-soft maple swamp forest
3. The red oak-linden transition phase of the swamp forest on the better drained swamp areas
4. Beech-maple

SAMPSON, H. C.

1928 In Sampson, H. C., and E. N. Transeau, "Original plant associations as indices to biotic habitats with special references to the corn borer." In Huber, L. L., C. R. Neiswander, and R. M. Salter, *The European corn borer and its environment*. Ohio Agr. Exp. Sta., Bull. no. 429, p. 159.

- 1927 "PLANT COMMUNITIES ON THE MAPPED AREA [IN THE SOUTHWESTERN PORTION OF THE HAZELWOOD BOTANICAL PRESERVE, BUTLER COUNTY]"
black and white [1:5,570]

LEGEND

- | | |
|-------------------------------|-------------------------------|
| A. [Swamp] | 6. J. pye w. [Joe pye weed] |
| 1. <i>Leersia</i> | 7. Black willow |
| 2. <i>Impatiens</i> | 8. Purple willow |
| 3. <i>Impatiens-Polygonum</i> | 9. Willow-button [bush] |
| 4. Willow | 10. Willow-ash-elm-sycamore |
| 5. Cat-tail | |
| B. [Forest] | 15. Tulip-sassafras |
| 11. Beech | 16. Tulip-sassafras-butternut |
| 12. Sour gum | 17. Tulip-ash |
| 13. Tulip | 18. Ash |
| 14. Tulip-maple | 19. Ash-tulip-black cherry |

- | | |
|------------------|---------------------------------|
| 20. Black cherry | 24. Oak-dogwood |
| 21. Hornbeam | 25. Oak-butternut-dogwood |
| 22. Oak | 26. Oak-tulip-dogwood |
| 23. Red Oak | |
| C. [Ruderal] | 28. Goldenrod-blackberry |
| 27. Poke | 29. <i>Desmodium-Potentilla</i> |

SEGELKEN, JOHN G.

1929 *The plant ecology of the Hazelwood Botanical Preserve*. Ohio Biol. Surv., Bull. no. 21 (vol. 4, no. 6), p. 228.

[1928] "PRAIRIE RIDGE' NEAR BEAVER POND"

black and white

[1:490]

LEGEND

- | | |
|--|--------------------------------|
| 1. <i>Andropogon</i> | <i>Delphinium, Polemonium,</i> |
| 2. Moss mat | <i>Lithospermum</i> |
| 3. Moss-lichen mat with <i>Phlox</i> , | 4. Hazel |

Also indicates distribution of individuals and colonies of 27 species of trees and shrubs

BRAUN, E. LUCY

1928 *The vegetation of the Mineral Springs region of Adams County, Ohio*. Ohio Biol. Surv., Bull. no. 15, (vol. 3, no. 5), Ohio State Univ. Bull., vol. 32, no. 30, p. 409.

1934 "PRIMARY VEGETATION AREAS OF OHIO, PRELIMINARY SURVEY"

black and white

[1:2,100,000]

LEGEND

1. Prairie grassland
2. Swamp forest; beech-maple on better drained sites
3. Beech-maple with swamp forest on poorly drained sites
4. Oak-hickory; oak-chestnut; oak-pine with mixed mesophytic on valley-slopes
5. Oak-hickory; oak-hickory and chestnut

TRANSEAU, EDGAR NELSON and H. C. SAMPSON

1938 In Sitterly, J. H., and J. I. Falconer, *Better land utilization for Ohio*. Columbus, Ohio State Univ. and Agr. Exp. Sta., Dept. Rural Economics, Mimeograph Bull. no. 108, p. 18. Reprinted with modifications by E. N. Transeau, 1950 Columbus, Ohio, Department of Botany and Plant Pathology, The Ohio State University.

1934 "[THIRTY ACRE TRACT OF AN ABANDONED] FARM IN [FALLS TOWNSHIP], MUSKINGUM COUNTY, OHIO"

black and white

[1:2,500]

LEGEND

- | | |
|---------------|--------------------|
| 1. Forest | 4. Tall blackberry |
| 2. High shrub | 5. Dewberry |
| 3. Sumac | 6. Weeds |

7. Bluegrass
8. Red top

9. *Andropogon* beard grass
10. Poverty grass

LARSEN, J. A.

1935 "Natural revegetation on eroded soils in southeastern Ohio." *Iowa State College Jour. Sci.*, vol. 9, p. 366.

- [1936] "MAJOR VEGETATIONAL DIVISIONS OF THE AREA UNDER STUDY [IN THE NORTH CHAGRIN RESERVATION, NEAR CLEVELAND]"
black and white [1:6300]

LEGEND

1. Flood-plain extensions [transitions to swamp forest]
2. Forest mictium [beech-hemlock-red oak-chestnut forest]
3. Interior forest [Beech-maple association]
4. Swamp forest [American elm-basswood-red maple-black ash forest]

WILLIAMS, ARTHUR B.

1936 "The composition and dynamics of a beech-maple climax community." *Ecological Monographs*, vol. 6, p. 334. Reprinted, 1936 [1:6200], in his: *The composition and dynamics of a beech-maple climax community*. Cleveland Mus. Nat. Hist., Sci. Publ., vol. 6, p. 18.

- [1937] "[FOREST TYPES OF OHIO]"
black and white [1:4,900,000]

LEGEND

- | | |
|--------------------------------------|------------------------------------|
| 1. Elm-ash-maple area | 4. Pin oak "flats" |
| 2. Beech-sugar maple area | 5. White oak-red oak-chestnut area |
| 3. Burr oak-hickory-beech-maple area | 6. Mixed oak-chestnut-poplar area |

DEAN, F. W.

1937 *Ohio trees*. Ohio State Univ., Agr. Extension Serv., Bull. no. 185, p. 7. Reprinted, 1946 in his: *Ohio trees*. Revised edition. Ohio State Univ., Agr. Extension Serv., Bull. 185, p. 8.

- [1937] "GENERALIZED MAP OF VEGETATION TYPES OF TRUMBULL COUNTY, OHIO"
black and white [1:318,000]

LEGEND

- | | |
|---------------------------------|---|
| 1. Oak-chestnut association | 4. Beech-sugar maple association |
| 2. Mixed oak association | 5. Swamp forest and its transitional phases |
| 3. Mixed mesophytic association | |

The symbols for the mixed oak and mixed mesophytic associations are reversed on the published map (Personal communication, R. E. Shanks, 1956)

SHANKS, ROYALE E.

1942 "The vegetation of Trumbull County, Ohio." *Ohio Journal of Science*, vol. 42, p. 224.

- [1939] "ROSS TOWNSHIP, GREENE COUNTY, FOREST TYPES"
in color [1:66,000]

LEGEND

- | | |
|---------------------------------------|----------|
| 1. Oak-hickory | 3. Mixed |
| 2. American elm-white ash-sugar maple | |

REID, DAVID

1939 *Forest resources of Ross Township, Green County, Ohio.* [Works Project Admin. in Ohio and Div. Forestry, Ohio Agr. Exp. Sta., Ohio Forest Surv.], p. [10].

1939 "MAP OF LUCAS COUNTY, OHIO"

black and white

[1:250,000]

LEGEND

- | | |
|----------------------|------------------|
| 1. The oak openings | c. Metzger Marsh |
| 2. Marshes | d. Pintail Marsh |
| a. Erie Marsh | e. McGee Marsh |
| b. Cedar Point Marsh | |

CAMPBELL, LOUIS W.

1940 "Birds of Lucas County." *Toledo Mus. Sci. Bull.*, vol. 1, no. 1, facing p. [6].

1939 "WOODLANDS, BUTLER COUNTY, OHIO"

in color

[1:63,400]

LEGEND

- | | |
|---------------------------|--------------------|
| 1. Oak-hickory | 5. Flood plain |
| 2. Oak-maple | 6. Mixed hardwoods |
| 3. Beech-maple | 7. Black locust |
| 4. A. elm-w. ash-h. maple | |

BYRD, JESSE M.

1941 *Forest resources of Butler County, Ohio: Preliminary statistics and analysis.* Works Projects Admin. in Ohio in coop. with U. S. Forest Serv., Central States Forest Exp. Sta., Ohio Forest Surv., Rept. no. 8, in pocket.

1939 "WOODLANDS, SHELBY COUNTY, OHIO"

in color

[1:63,400]

LEGEND

- | | |
|-----------------------|----------------|
| 1. Beech-maple | 4. Flood plain |
| 2. Elm-ash-hard maple | 5. Oak-hickory |
| 3. Elm-ash-soft maple | 6. Oak-maple |

ROOT, CORNELL A.

1941 *Forest resources of Shelby County, Ohio: Preliminary statistics and analysis.* Works Projects Admin. in Ohio in coop. with U.S. Forest Serv., Central States Forest Exp. Sta. and Dept. Forestry, Ohio Agr. Exp. Sta., Ohio Forest Surv., Rept. no. 6, in pocket.

- 1939 "WOODLANDS, MADISON COUNTY, OHIO"
in color [1:63,400]

LEGEND

- | | |
|------------------------|------------------|
| 1. Oak-hickory | 5. White oak |
| 2. Bur oak | 6. Bottomland |
| 3. White-black-red oak | 7. Oak-red maple |
| 4. Elm-ash-red maple | 8. Oak-elm |

TONTI, EDWARD

1941 *Forest resources of Madison County, Ohio*. Works Projects Admin. Ohio, in coop. with Central States Forest Exp. Sta. and Ohio Agr. Exp. Sta., Ohio Forest Surv., Rept. no. 12, in pocket.

- 1939 "WOODLANDS, MEDINA COUNTY, OHIO"
in color [1:63,400]

LEGEND

- | | |
|----------------|--------------------------|
| 1. Beech-maple | 5. Shagbark hickory |
| 2. Oak-hickory | 6. White ash-soft maple- |
| 3. Oak-maple | American elm |
| 4. Flood plain | |

LOEW, ERWIN A.

1940 *Forest resources of Medina County, Ohio: Preliminary statistics and analysis*. Works Projects Admin. in Ohio and Div. Forestry, Ohio Agr. Exp. Sta., Ohio Forest Surv., Farmwoods Sect., Forestry Publ. no. 69, in pocket.

- 1939 "WOODLANDS, PORTAGE COUNTY, OHIO"
in color [1:63,400]

LEGEND

- | | |
|----------------------------------|------------------------|
| 1. Beech-sugar maple | 4. Oak-maple |
| 2. White elm-red maple-white ash | 5. Swamp oak-white elm |
| 3. Oak-hickory | 6. Mixed hardwoods |

McMASTER, WILLIAM C.

1941 *Forest resources of Portage County, Ohio: Preliminary statistics and analysis*. Works Projects Admin. in Ohio in coop. with U.S. Forest Serv., Central States Forest Exp. Sta. and Dept. Forestry, Ohio Agr. Exp. Sta., Ohio Forest Surv., Rept. no. 9, in pocket. Reprinted, 1943 black and white, [1:270,000], in Stephan, L. LeMar, "An agricultural survey of Portage County, Ohio." *Economic Geography*, vol. 19, p. 158.

- 1939 "WOODLANDS, WAYNE COUNTY, OHIO"
in color [1:63,400]

LEGEND

- | | |
|----------------------|--------------------------------|
| 1. Beech-maple | 3. White-red-black oak |
| 2. White oak-hickory | 4. Yellow poplar-white-red oak |

- | | |
|--------------------------------------|-----------------|
| 5. Oak-maple | 7. Pin oak |
| 6. White ash-soft maple-American elm | 8. Black cherry |

CONWAY, EMMETT A.

1940 *Forest resources of Wayne County, Ohio: Preliminary statistics and analysis.* Works Projects Admin. in Ohio and Div. Forestry, Ohio Agr. Exp. Sta., Ohio Forest Surv., Farmwoods Sect., Forestry Publ. no. 65, in pocket.

1939 "WOODLANDS, MIAMI COUNTY, OHIO"

in color

[1:63,000]

LEGEND

- | | |
|---------------------------------------|--------------------------------------|
| 1. Beech-maple | 5. American elm-white ash-soft maple |
| 2. Wet beech | 6. Flood plain |
| 3. Oak-hickory | |
| 4. American elm-white ash-sugar maple | |

SCHLEMMER, NELSON

1941 *Forest resources of Miami County, Ohio: Preliminary statistics and analysis.* Works Projects Admin. in Ohio in coop. with U.S. Forest Serv., Central States Forest Exp. Sta. and Dept. Forestry, Ohio Agr. Exp. Sta., Ohio Forest Surv., Rept. no. 5, in pocket.

1939 "WOODLANDS, PREBLE COUNTY, OHIO"

in color

[1:63,000]

LEGEND

- | | |
|---------------------------------------|-------------------------------------|
| 1. Beech-maple | 5. Flood plain |
| 2. American elm-white ash-sugar maple | 6. Oak-maple |
| 3. Mixed hardwoods | 7. Black locust |
| 4. Oak-hickory | 8. American elm-white ash-red maple |

BYRD, JESSE M.

1939 *Forest resources of Preble County, Ohio: Preliminary statistics and analysis.* Works Projects Admin. in Ohio and Div. Forestry, Ohio Agr. Exp. Sta., Ohio Forest Surv., Farmwoods Sect., Forestry Publ. no. 59, in pocket.

[1939] "FOREST COVER MAP, SALT CREEK TOWNSHIP, WAYNE COUNTY"

in color

[1:63,000]

LEGEND

- | | |
|------------------------------------|--|
| 1. Beech-maple | 5. Oak-maple |
| 2. White oak-black oak-red oak | 6. American elm-black ash-(soft) maple |
| 3. White oak-hickory | |
| 4. Yellow poplar-white oak-red oak | |

FULLERTON, JOHN C.

[1939] *Forest resources of Salt Creek Township, Wayne County,*

Ohio. [Works Projects Admin. in Ohio and Div. Forestry, Ohio Agr. Exp. Sta., Ohio Forest Surv.], unnumbered, processed publ., p. [9].

- [1939] "MONTGOMERY TOWNSHIP, ASHLAND COUNTY, OHIO: FOREST TYPES"
in color [1:61,300]

LEGEND

- | | |
|---------------------|--|
| 1. Beech-maple | 6. Oak-maple |
| 2. Elm-ash-maple | 7. Areas cut during the period 12-1-34 to 8-1-39 and areas bearing less than 25 trees per acre |
| 3. Flood plain | |
| 4. Mixed mesophytic | |
| 5. Oak-hickory | |

GARBER, W. A.

[1939] *Forest resources of Montgomery Township, Ashland County, Ohio*. [Works Projects Admin. in Ohio and Div. Forestry, Ohio Agri. Exp. Sta., Ohio Forest Surv.], unnumbered, processed publ., between pp. 1 and 2.

- [1940] "WOODLANDS, LORAIN COUNTY, OHIO"
in color [1:64,000]

LEGEND

- | | |
|-----------------------|-----------------|
| 1. Beech-sugar maple | 3. Oak-hickory |
| 2. Elm-ash-soft maple | 4. Flood plains |

LINDEMAN, KARL

1940 *Forest resources of Lorain County, Ohio: Preliminary statistics and analysis*. Works Projects Admin. Ohio and Div. Forestry, Ohio Agr. Exp. Sta., Ohio Forest Surv., Farmwoods Sect., Forestry Publ. no. 68, in pocket.

- [1940] "MAP OF AREA STUDIED, SHOWING LOCATION OF STATIONS AND SIMILAR AREAS"
black and white [1:13,800]

LEGEND

- | | |
|--|--|
| 1. <i>Potentilla-Solidago-Rumex</i> associates | 3. <i>Quercus-Carya</i> associates |
| 2. <i>Solidago-Agrostis-Daucus</i> associates | 4. <i>Acer-Tilia-Sambucus</i> associates |
| | 5. <i>Fagus-Acer</i> association |
| | 6. Ecotones |

DOWDY, W. W.

1944 "A community study of a disturbed deciduous forest area, Cleveland, Ohio, with special reference to invertebrates." *Ecological Monographs*, vol. 14, p. 196.

- 1940-1941 "CABIN RUN FOREST AREA, WILLIAMSBURG TOWNSHIP, CLERMONT COUNTY, OHIO"
black and white [1:5100]

LEGEND

- | | |
|---------------------|-------------------------|
| 1. Mixed mesophytic | 5. Oak-hickory |
| 2. Beech-maple | 6. Red o.-chestnut o. |
| 3. Ridge beech | 7. White o.-chestnut o. |
| 4. Knoll beech | 8. Streamside community |

COBBE, THOMAS J.

1943 "Variations in the Cabin Run forest, a climax area in southwestern Ohio." *American Midland Naturalist*, vol. 29, p. 92.

1941 "WOODLANDS, STARK COUNTY, OHIO"

in color

[1:63,400]

LEGEND

- | | |
|--------------------------------|---------------------|
| 1. Beech-hard maple | 6. Oak-soft maple |
| 2. White oak-black oak-red oak | 7. Red oak-basswood |
| 3. Ash-elm-soft maple-cherry | 8. Mixed hardwoods |
| 4. Oak-hickory | 9. Black locust |
| 5. Yellow poplar-white-red oak | 10. Cut over area |

CRAWMER, J. RICHARD

1942 *Forest resources of Stark County, Ohio*. Works Projects Admin. Ohio, in coop. with Central States Forest Exp. Sta. and Ohio Agr. Exp. Sta., Ohio Forest Surv., Rept. no. 11, in pocket.

1941 "WOODLANDS, FRANKLIN COUNTY, OHIO"

in color

[1:63,400]

LEGEND

- | | |
|------------------|--------------------|
| 1. Elm-ash-oak | 5. Elm-ash-maple |
| 2. Elm-ash-beech | 6. Mixed hardwoods |
| 3. Oak-hickory | 7. Oak-maple |
| 4. Bottomland | 8. Elm-ash-walnut |

SCHRAMM, WILFRED O.

1942 *Forest resources of Franklin County, Ohio*. Works Projects Admin. Ohio, in coop. with Central States Forest Exp. Sta. and Ohio Agr. Exp. Sta., Ohio Forest Surv., Rept. no. 16, in pocket.

[1942] "WOODLANDS, CLINTON COUNTY, OHIO"

in color

[1:63,400]

LEGEND

- | | |
|-----------------------|-----------------------|
| 1. Beech-maple | 6. Oak-maple |
| 2. Oak-hickory | 7. Pin oak |
| 3. Elm-ash-hard maple | 8. Elm-ash-soft maple |
| 4. Mixed hardwoods | 9. Miscellaneous |
| 5. Flood plain | |

ROTHACHER, JACK S.

1942 *Forest resources of Clinton County, Ohio*. Works Projects Admin. Ohio, in coop. with Central States Forest Exp. Sta. and Ohio Agr. Exp. Sta., Ohio Forest Surv., Rept. no. 15, in pocket.

[1943] "WOODLANDS, COSHOCTON COUNTY, OHIO"

in color

[1:63,400]

LEGEND

- | | |
|--------------------|----------------------|
| 1. Beech-maple | 5. Oak-hickory |
| 2. Bottom land | 6. Oak-tulip |
| 3. Elm-ash-maple | 7. Red oak-white oak |
| 4. Mixed hardwoods | |

CROWTHERS, GERALD W.

1943 *Forest resources of Coshocton County, Ohio*. Works Projects Admin. Ohio, in coop. with Central States Forest Exp. Sta. and Ohio Agr. Exp. Sta., Ohio Forest Surv., Rept. no. 21, in pocket.

[1962] "VEGETATION ZONES OF MILLER BLUE HOLE"

black and white

[1:1,200]

LEGEND

1. The open water zone with free-swimming and unattached algae
2. *Chara-Spirogyra* mat which includes mosses, diatoms, and algal forms
3. Zone of emergent plants comprised mostly of grasses and sedges
4. Dogwoods and entanglements of lianas interspersed with overtopping trees
5. Red ash-green ash-white mulberry community

PINKAVA, DONALD J.

1963 "Vascular flora of the Miller Blue Hole and stream, Sandusky County, Ohio." *Ohio Journal of Science*, vol. 63, p. 118.

OKLAHOMA

1899 "MAP OF INDIAN TERRITORY SHOWING DISTRIBUTION OF WOODLAND"
in color 1:500,000

LEGEND

1. [Woodland]

THOMPSON, GILBERT, F. E. MATTHES and M. L. CUDLIPP

1901 In Fitch, C. H., "Woodland of Indian Territory." *U. S. Geol. Surv., Ann. Rept.* no. 21 (1899-1900), pt. 5 (Forest reserves), pl. 142 in atlas.

[1929] "NATIVE VEGETATION"
black and white [1:5,500,000]

LEGEND

- | | |
|--|---|
| <p>A. Forests</p> <ol style="list-style-type: none"> 1. Cypress, red gum, bottom land forest 2. Oak, pine forest 3. Oak, hickory forest <p>B. Mixed timber and prairie</p> <ol style="list-style-type: none"> 4. Oak, hickory woodland 5. Post oak and jack oak woodland <p>C. Tall grass prairie</p> <ol style="list-style-type: none"> 6. Humid bluestem prairie sod | <ol style="list-style-type: none"> 7. Sub humid bluestem prairie sod 8. Tall grass, bluestem, bunch grass 9. Sand-sage or sand grass or shinnery <p>D. Short grass, plains grassland</p> <ol style="list-style-type: none"> 10. Wire grass, plains grassland 11. Grama and buffalo grass, plains grassland |
|--|---|

SOUTHWESTERN BELL TELEPHONE COMPANY

1929 In Avis, S. B., J. N. Holsen, and R. D. Howes, *Economic survey of Oklahoma*. St. Louis, Missouri, Southwestern Bell Telephone Co., General Commercial Engineering Dept., p. 20.

[1931] "VEGETATIONAL REGIONS OF OKLAHOMA"
black and white [1:4,100,000]

LEGEND

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Oak-hickory association 2. Oak-hickory savannah 3. <i>Andropogon</i> associes | <ol style="list-style-type: none"> 4. <i>Stipa-Koeleria</i> association 5. <i>Stipa-Bouteloua</i> association 6. <i>Bulbilis-Bouteloua</i> association |
|--|---|

BRUNER, WILLIAM EDWARD

1931 "The vegetation of Oklahoma." *Ecological Monographs*, vol. 1, p. 108.

OKLAHOMA

- 1936 "AREAS CHARACTERIZED BY THE MAJOR FOREST TYPES IN SOUTHEAST OKLAHOMA"
green, black, and white [1:1,000,000]

LEGEND

- | | |
|---------------------------------|-------------------------------|
| 1. Shortleaf-hardwoods | 4. Mixed bottomland hardwoods |
| 2. Shortleaf-loblolly hardwoods | 5. Prairie |
| 3. Mixed upland hardwoods | |

UNITED STATES. *Forest Service*

1938 In Eldredge, I. F., *Forest resources of southeast Oklahoma*. Southern Forest Exp. Sta., Forest Survey Release no. 37, p. 9.

- 1940 "FOREST TYPE MAP OF OKLAHOMA"
green, black, and white [1:3,000,000]

LEGEND

- | | |
|---------------------------|-------------------------------|
| 1. Shortleaf-pine | 3. Mixed bottomland hardwoods |
| 2. Mixed upland hardwoods | 4. Post oak-blackjack oak |

DEMMON, E. L.

1940 *Oklahoma's forest resources*. Southern Forest Exp. Sta., no. 60, inserted at back.

- 1943 "A GAME TYPE MAP OF OKLAHOMA. PRELIMINARY EDITION."
in color [1:558,000]

LEGEND

- | | |
|--|-----------------------------------|
| 1. Piñon-juniper-mesa type.
Overprinted hatching indicates
the "distributions of <i>Pinus</i>
<i>edulis</i> " | 7. Stabilized dune type |
| 2. Shortgrass highplains type | 8. Shinnery oak-grassland type |
| 3. Sand-sage grassland type | 9. Postoak-blackjack forest type |
| 4. Mixed grass eroded plains type | 10. Oak-hickory forest type |
| 5. Mesquite grasslands | 11. Oak-pine forest type |
| 6. Tallgrass prairie type | 12. Loblolly pine forest type |
| | 13. Cypress bottoms forest type |
| | 14. Bottomland type (flood plain) |

KREFTING, LAURITS *and others*

[1943] In Duck, L. G., and Jack B. Fletcher, *A survey of the game and furbearing animals of Oklahoma*. [Oklahoma City], State of Oklahoma, Division of Wildlife Restoration and Research, Oklahoma Game and Fish Commission, State Bulletin no. 3, Pittman-Robertson Series no. 2, inserted loose at back.

- [1946] "DETAIL OF PLANT COVER OF ABANDONED PORTION OF GRACE MOUNTAIN PRAIRIE DOG TOWN [WICHITA MOUNTAINS WILDLIFE PRESERVE, SOUTHWESTERN OKLAHOMA]"
black and white [1:3,000]

LEGEND

- | | |
|------------------------------|------------------------------|
| 1. Barren area and mat forbs | 2. First-year annual threawn |
|------------------------------|------------------------------|

- | | |
|-----------------------------------|--------------------------|
| 3. Older annual threeawn | 6. Short grasses |
| 4. Threeawn and forbs | 7. Subclimax and grasses |
| 5. Threeawn and perennial grasses | 8. Climax tall grasses |

OSBORN, BEN *and* PHILIP F. ALLAN

1949 "Vegetation of an abandoned prairie-dog town in tall grass prairie." *Ecology*, vol. 30, p. 325.

[1956] "PLATT NATIONAL PARK, OKLAHOMA"

black and white

[1:21,800]

LEGEND

- | | |
|-------------------------|-------------------------|
| 1. Little bluestem type | 4. Disturbed grasslands |
| 2. Seep muhly type | 5. Forest |
| 3. Hairy grama type | |

DALE, EDWARD E., JR.

1959 "The grasslands of Platt National Park, Oklahoma." *Southwestern Naturalist*, vol. 4, p. 49.

[1957] "MAJOR FOREST TYPES IN EAST OKLAHOMA"

in color

[1:1,800,000]

LEGEND

- | | |
|--------------------|-----------------------------------|
| 1. Oak-hickory | 4. Loblolly-shortleaf pine |
| 2. Oak-gum-cypress | 5. Nontyped; less than 10% forest |
| 3. Oak-pine | |

ANON.

1957 *Forests of east Oklahoma, 1955-56*. Southern Forest Exp. Sta., Forest Surv. Release no. 79, p. 3.

[1960] "WESTERN OKLAHOMA, PRECIPITATION & SHINNERY OAK REGIONS"

black and white

[1:5,400,000]

LEGEND

- | | |
|-------------------------|-------------------------------|
| 1. Shinnery oak regions | 2. Shinnery influence regions |
|-------------------------|-------------------------------|

WIEDEMAN, V. E. *and* WILLIAM T. PENFOUND

1960 "A preliminary study of the shinnery in Oklahoma." *Southwestern Naturalist*, vol. 5, p. 118.

OREGON

- 1850 "VEGETATION MAP OF THE MID-WILLAMETTE VALLEY, SHOWING THE DISTRIBUTION OF THE FIVE MAJOR VEGETATION TYPES AS THEY EXISTED DURING THE 1850's"
black and white [1:360,000]

LEGEND

- | | |
|----------------|----------------|
| 1. Douglas fir | 4. Oak opening |
| 2. Prairie | 5. Bottomland |
| 3. Oak forest | |

HABECK, JAMES R.

1961 "The original vegetation of the mid-Willamette Valley, Oregon." *Northwest Science*, vol. 35, p. 70.

- 1936 "FOREST TYPE MAP, STATE OF OREGON"
in color 1:253,440

LEGEND

- | | |
|--|--|
| Non-forest land types | pine, Douglas fir, western larch, white fir, white pine, etc.) |
| 1. Non-forest land | |
| 2. Agricultural zone | |
| Noncommercial forest types | 12. Balsam fir, mountain hemlock, and upper slope types |
| 3. Sub-alpine and certain noncommercial forests | 13. Western white pine (2 age classes) |
| 4. Lodgepole pine | 14. Balsam fir, mountain hemlock, and upper slope types |
| 5. Juniper | 15. Hardwoods: alder, ash, maple |
| Timberland types | 16. Hardwoods: oak, madrone, tan oak |
| 6. Douglas fir (4 age classes) | 17. Cut-overs |
| 7. Spruce-hemlock | 18. Deforested burns |
| 8. Spruce-hemlock-[western red and/or Port Orford] cedar | |
| 9. [Port Orford] cedar-redwood | |
| 10. Ponderosa pine (4 age classes) | |
| 11. Pine mixtures (ponderosa | |

UNITED STATES. *Forest Service*

1936 Pacific Northwest Forest and Range Experiment Station, Portland. 4 sheets.

- [1951] "MAP OF MARY'S PEAK ABOVE THE 2,500 FOOT CONTOUR SHOWING THE PLANT COMMUNITIES"
black and white [1:99,400]

LEGEND

- | | |
|----------------------------------|--------------------------|
| 1. Noble fir | 5. Hemlock-Douglas fir |
| 2. Douglas fir | 6. Meadow |
| 3. Noble fir-Douglas fir | 7. Recently burned areas |
| 4. Hemlock-noble fir-Douglas fir | |

MERKLE, JOHN

1951 "An analysis of the plant communities of Mary's Peak, western Oregon." *Ecology*, vol. 32, p. 621.

[1956] "PLANT COMMUNITIES ON MONUMENT PEAK"

black and white

[incalculable]

LEGEND

- | | |
|--|--|
| 1. <i>Abies amabilis</i> - <i>Tsuga heterophylla</i> faciation | 4. <i>Pseudotsuga taxifolia</i> consociation |
| 2. <i>Abies procera</i> consociation | 5. Rock-fell |
| 3. <i>Abies amabilis</i> - <i>A. procera</i> faciation | 6. Bog-marsh |
| | 7. <i>Acer-Alnus</i> |
| | 8. Mixed conifer |

ALLER, ALVIN R.

1956 "A taxonomic and ecologic study of the flora of Monument Peak, Oregon." *American Midland Naturalist*, vol. 56, p. 456.

1963 "MAJOR FOREST COVER TYPES IN EASTERN OREGON"

in color

[1:2,700,000]

LEGEND

- | | |
|-------------------|-----------------------------|
| 1. Douglas fir | 5. Fir, spruce |
| 2. Ponderosa pine | 6. Juniper |
| 3. Lodgepole pine | 7. Unproductive forest land |
| 4. Western larch | 8. [Non-forest] |

UNITED STATES. *Forest Survey*

1963 In Gedney, Donald R., "Toward complete use of eastern Oregon's forest resources." Pacific Northwest Forest and Range Exp. Sta., U. S. Forest Serv., *Resource Bull.* no. PNW-3, p. 20.

PENNSYLVANIA

[1800] "ORIGINAL FOREST TYPES [OF PENNSYLVANIA]"

black and white

[1:2,200,000]

LEGEND

- | | |
|--|-----------------------------|
| 1. Beech—maple region | 4. Oak—chestnut region |
| 2. Mixed mesophytic region | a. Ridge and valley section |
| a. Allegheny Plateau section | b. Blue Ridge |
| b. Allegheny Mountain section | c. Piedmont section |
| 3. Hemlock—white pine—
northern hardwood region | d. Glaciated section |

PENNSYLVANIA. *Department of Forest and Waters*

1960 *Proper balance of oak wilt research and control with other forest disease problems.* Harrisburg, Department of Forest and Waters, p. [8].

[1904] "MAP SHOWING POSITION OF TIDAL-MARSH REGION SURVEYED"

black and white

[incalculable]

LEGEND

- | | |
|---|-------------------------------|
| 1. Marsh [portion of which is
enlarged in figures 2, 3, and 4] | 2. <i>Scirpus</i> association |
| | 3. High ground |

HARSHBERGER, JOHN W.

1904 "A phyto-geographic sketch of extreme southeastern Pennsylvania." *Bull. Torrey Bot. Club*, vol. 31, fig. 1, p. 137.

[1904] "PORTION OF THE TIDAL-MARSH-PLANT FORMATION SHOWN IN FIG. 1"

black and white

[incalculable]

LEGEND

1. *Zizania aquatica* L.
2. *Nuphar* association
3. *Sagittaria latifolia* Willd. and *Ambrosia trifida* L.
4. *Sambucus canadensis* L., *Cephalanthus occidentalis* L. and *Rubus nigrobaccus* Bailey
5. Willows
6. Willows and *Sambucus canadensis* L.
7. *Hibiscus moscheutos* L.
8. *Impatiens biflora* Walt., *Rudbeckia latifolia* Willd. and *Sagittaria latifolia* Willd
9. *Thalictrum polygamum* Muhl. and *Heracleum lanatum* Michx.

HARSHBERGER, JOHN W.

1904 "A phyto-geographic sketch of extreme southeastern Pennsylvania." *Bull. Torrey Bot. Club*, vol. 31, p. 138.

- [1904] "PORTION OF THE TIDAL-MARSH-PLANT FORMATION SHOWN IN FIG. 1"
black and white [incalculable]

LEGEND

- | | |
|---|---|
| 1. Dark green <i>Zizania aquatica</i> L. | 7. <i>Cicuta-Sagittaria</i> association |
| 2. Light green <i>Zizania aquatica</i> L. | 8. <i>Convolvulus sepium</i> L.,
<i>Sambucus canadensis</i> L.,
<i>Cornus amomum</i> Mill. and
<i>Cephalanthus occidentalis</i> L. |
| 3. <i>Nuphar</i> association | |
| 4. <i>Sagittaria</i> association | |
| 5. <i>Sagittaria latifolia</i> Willd. and
<i>Ambrosia trifida</i> L. | 9. <i>Sagittaria latifolia</i> Willd. and
<i>Rudbeckia laciniata</i> L. |
| 6. <i>Typha</i> association | |

HARSHBERGER, JOHN W.

1904 "A phyto-geographic sketch of extreme southeastern Pennsylvania." *Bull. Torrey Bot. Club*, vol. 31, fig. 3, p. 139.

- [1904] "PORTION OF TIDAL-MARSH-PLANT FORMATION SHOWN IN FIG. 1"
black and white [incalculable]

LEGEND

- | | |
|---|---|
| 1. Dark green <i>Zizania aquatica</i> L. | 5. Dark and light green <i>Zizania aquatica</i> L., mixed |
| 2. Light green <i>Zizania aquatica</i> L. | 6. <i>Salix alba</i> L. |
| 3. <i>Sagittaria latifolia</i> Willd. | 7. <i>Pontederia cordata</i> L. |
| 4. <i>Sagittaria latifolia</i> Willd., a form
with narrower leaves | |

HARSHBERGER, JOHN W.

1904 "A phyto-geographic sketch of extreme southeastern Pennsylvania." *Bull. Torrey Bot. Club*, vol. 31, p. 140.

- [1927] "MAP OF WESTERN PENNSYLVANIA SHOWING ECOLOGICAL PLANT
GEOGRAPHY"
black and white [1:2,800,000]

LEGEND

- | | |
|--|--------------------------------------|
| 1. Sugar maple-beech forests | of oak uplands and mixed |
| 2. Sugar maple-beech-birch-white
pine-hemlock | conifers and hardwoods in
valleys |
| 3. Upland oak forest | 6. Pine barrens |
| 4. White oak hills | 7. Pitch pine ridges |
| 5. Intergradation and dovetailing | |

JENNINGS, OTTO E.

1927 "Classification of the plant societies of central and western Pennsylvania." *Proc. Pennsylvania Acad. Sci.*, vol. 1, p. 25.

- [1930] "TOPOGRAPHIC MAP OF HEART'S CONTENT AREA"
black and white [1:5090]

LEGEND

- | | |
|-------------------------|------------------------------|
| 1. Hemlock consociation | 2. Hemlock-beech association |
|-------------------------|------------------------------|

LUTZ, H. J.

1930 "The vegetation of Heart's Content, a virgin forest in north-western Pennsylvania." *Ecology*, vol. 11, p. 3.

PENNSYLVANIA

- [1934] "BOUNDARIES OF THE BEECH-BIRCH-MAPLE-HEMLOCK FOREST REGION, SOUTHERN LIMIT OF GLACIATION OF THE NORTHERN ALLEGHENY PLATEAU" black and white [1:3,300,000]

LEGEND

1. Allegheny hardwoods-hemlock forest types
2. Oak-chestnut-yellow poplar forest types

HOUGH, A. F. and R. D. FORBES

1943 "The ecology and silvics of forests in the high plateaus of Pennsylvania." *Ecological Monographs*, vol. 13, p. 302.

- [1941] "WEST GOSHEN TWP., CHESTER COUNTY, PA." black and white [1:87,400]

LEGEND

1. Oak-chest.-y. poplar forest
2. Serpentine barrens
3. Swamp or swale
4. Stream valleys occupied by mixed mesophytic deciduous forest

GORDON, ROBERT B.

1941 "The natural vegetation of West Goshen Township, Chester County, Pa." *Proc. Pennsylvania Acad. Sci.*, vol. 15, p. 195.

- [1947] "PRINCIPAL FOREST TYPES OF THE ANTHRACITE REGION [NORTHEASTERN PENNSYLVANIA]" black and white [1:1,400,000]

LEGEND

1. Northern hardwood
2. White pine-white oak-red oak
3. Red oak-black oak-white oak
4. Scrub oak
5. Aspen-gray birch-pin cherry
6. Chestnut oak
7. White pine-hemlock

BURNHAM, C. F., M. J. FERREE and F. E. CUNNINGHAM

1947 *The northern hardwood forests of the Anthracite Region.* Northeastern Forest Exp. Sta., Sta. Paper no. 1, facing p. 1.

1947 *The red oak-white oak forests of the Anthracite Region. Ibid.*, Sta. Paper no. 2, facing p. 1.

1947 *The aspen-gray birch forests of the Anthracite Region. Ibid.*, Sta. Paper no. 7, facing p. 1.

1947 *The white pine-oak forests of the Anthracite Region. Ibid.*, Sta. Paper no. 8, facing p. 1.

1947 *The white pine-hemlock forests of the Anthracite Region. Ibid.*, Sta. Paper no. 11, facing p. 1.

- [1950] "DISTRIBUTION OF THE MAJOR FOREST TYPES [IN SOUTHWESTERN PENNSYLVANIA]" black and white [1:1,900,000]

LEGEND

1. White oak and red oak-basswood-white ash
2. Hemlock
3. Beech-sugar maple
4. Red oak-black oak-chestnut oak

GRIMM, WILLIAM C. and HARVEY A. ROBERTS

1950 *Mammal survey of southwestern Pennsylvania*. Pennsylvania Game Comm., Pittman-Robertson Project 24-R, Final Rept., p. 15.

- [1950] "FOREST REGIONS OF POTTER COUNTY, PENNSYLVANIA"
black and white [1:452,000]

LEGEND

1. Northern hardwood region
 - a. Central highlands (largely beech-birch-maple forest type)
 - b. "Transition zone" (largely red oak forest type)
2. Oak forest region (white oak, chestnut oak, and red oak forest types)

GOODLETT, JOHN C.

1954 *Vegetation adjacent to the border of the Wisconsin drift in Potter County, Pennsylvania*. Harvard Forest. Bull. no. 25. p. 25. Reprinted with slight simplification, 1956 [1:320,000], in his "Vegetation and surficial geology." In Denny, Charles S., *Surficial geology and geomorphology of Potter County, Pennsylvania*. U.S. Geol. Surv., Prof. Paper no. 288, p. 57.

- [1952] "MAJOR FOREST TYPES [IN NORTHEASTERN PENNSYLVANIA]"
black and white [1:1,700,000]

LEGEND

- | | |
|---------------------------------|--------------------------------|
| 1. Beech-birch-maple | 5. Aspen-gray birch-pin cherry |
| 2. Red oak-black oak-white oak | 6. Chestnut oak |
| 3. White pine-white oak-red oak | 7. Scrub oak |
| 4. White pine-hemlock | |

"Based on surveys made by the Allegheny Forest Experiment Station."

GRIMM, WILLIAM C. and RALPH WHITEBREAD

1952 *Mammal survey of northeastern Pennsylvania*. Pennsylvania Game Comm., Pittman-Robertson Project 42-R, Final Rept., p. 15.

- [1954] "THE MAJOR FOREST TYPES IN PENNSYLVANIA"
in color [1:2,600,000]

LEGEND

- | | |
|----------------|----------------------|
| 1. White pine | 4. Maple-beech-birch |
| 2. Oak-pine | 5. Aspen-birch |
| 3. Oak-hickory | 6. Nonforest |

FERGUSON, ROLAND H.

1958 *The timber resources of Pennsylvania*. Northeastern Forest Exp. Sta., unnumbered publ., pp. 22-23.

- [1957] "MAJOR FOREST TYPES IN THE KINGSTON RESEARCH AREA"
green and white [1:3,200,000]

LEGEND

PENNSYLVANIA

- | | |
|-----------------------|---------------------|
| 1. Northern hardwoods | 4. Oak-pine |
| 2. Oak | 5. Aspen-gray birch |
| 3. Scrub oak | 6. Non-forest |

LULL, HOWARD W. *and* IRVIN C. REIGNER

1957 *A program of watershed-management research on forest lands in the upper Delaware and Susquehanna River basins.* Northeastern Forest Exp. Sta., Sta. Paper no. 92, p. 13.

RHODE ISLAND

[1957] "THE MAJOR FOREST TYPES IN RHODE ISLAND"

in color

[1:487,000]

LEGEND

- | | |
|----------------------|---------------------|
| 1. White pine | 4. Ash-elm-maple |
| 2. Oak-white pine | 5. Aspen-gray birch |
| 3. Red and white oak | 6. Nontyped |

FERGUSON, ROLAND H. *and* JOHN R. MCGUIRE1957 *The timber resources of Rhode Island*. Northeastern Forest
Exp. Sta., unnumbered publ., pp. 18-19.

SOUTH CAROLINA

- 1881 "MAP OF SOUTH CAROLINA SHOWING THE DISTRIBUTION OF THE PINE FORESTS, WITH SPECIAL REFERENCE TO THE LUMBER INDUSTRY"
in color [1:2,100,000]

LEGEND

1. Long leaved pine (*Pinus palustris*)
2. Long leaved pine mixed with short leaved pine (*P. mitis*) and hardwoods
3. Region from which merchantable pine has been cut

SARGENT, CHARLES SPRAGUE

1884 "Report on the forests of North America (exclusive of Mexico)." U. S. Dept. Interior, Census Office, *Tenth Census of the U. S.*, vol. 9, facing p. 519.

- 1903 "MAP OF COOPER RIVER HOLDINGS OF THE E. P. BURTON CO., BERKELEY CO., S. C."
in color [1:43,200]

LEGEND

- | | |
|---------------------|------------|
| 1. [Pine stands] | 4. Bay |
| 2. [Cypress stands] | 5. Pocosin |
| 3. Swamp | 6. Field |

ANON.

1905 *A working plan for forest lands in Berkeley County, South Carolina.* U. S. Dept. Agr., Bur. Forestry, Bull. no. 56, facing p. 62.

- 1940 "MAJOR FOREST TYPES, STATE OF SOUTH CAROLINA"
in color 1:1,000,000

LEGEND

- | | |
|-----------------------------|-------------------------|
| 1. Longleaf pine | 5. Mountain hardwoods |
| 2. Shortleaf pine-hardwoods | 6. Bottomland hardwoods |
| 3. Loblolly pine-hardwoods | 7. Marsh |
| 4. Virginia pine-hardwoods | |

UNITED STATES. *Forest Survey*

1940 Appalachian Forest Exp. Sta. [former name for Southeastern Forest Exp. Sta.] Reprinted with slightly revised legend, 1944 [1:1,500,000], in Frothingham, E. H., and R. M. Nelson, *South Carolina forest resources and industries.* U. S. Dept. Agr., Misc. Publ. no. 552, inserted at back.

1950 "MAJOR FOREST TYPES—SOUTH CAROLINA"

in color

[1:1,900,000]

LEGEND

- | | |
|-------------------|---------------------------------------|
| 1. Longleaf pine | 6. Oak-hickory |
| 2. Loblolly pine | 7. Swamp and bottom-land
hardwoods |
| 3. Shortleaf pine | 8. Marsh |
| 4. Virginia pine | |
| 5. Hardwood-pine | |

LARSON, ROBERT W.

1951 *The timber supply outlook in South Carolina.* U. S. Dept.
Agr., Forest Resource Rept. no. 3, inserted at back.

SOUTH DAKOTA

- [1940] "SOUTH DAKOTA NATIVE GRASS MAP"
black and white [1:3,400,000]

LEGEND

- | | |
|----------------------|-------------------------------|
| 1. Short grass types | 4. Tall grass types |
| 2. Mid-grass types | 5. River breaks & bottomlands |
| 3. Black Hills area | |

UNITED STATES. *Soil Conservation Service*

1942 *In* Franzke, C. J., and A. N. Hume, *Regrassing areas in South Dakota*. South Dakota State College, Agr. Exp. Sta., Bull. no. 361, p. 5.

- [1956] "COVER MAP OF A SEDGE-WHITETOP POTHOLE, WAUBAY STUDY AREA"
black and white [1:1,330]

LEGEND

- | | |
|------------------------------|-------------------------------------|
| 1. Open water with duckweeds | 5. Rushes |
| 2. Sedges 65%; whitetop 35% | 6. Wild barley |
| 3. Hardstem bulrush | 7. Weeds and grasses of the prairie |
| 4. Cattail | |

EVANS, CHARLES D. *and* KENNETH E. BLACK

1956 *Duck production studies on the prairie potholes of South Dakota*. U. S. Fish and Wildlife Serv., Special Sci. Rept.: Wildlife, no. 32, p. 8.

- [1956] "COVER MAP OF A CATTAIL POTHOLE, WAUBAY STUDY AREA"
black and white [1:960]

LEGEND

- | | |
|---|----------------|
| 1. Open water with watermilfoil,
pondweeds, and duckweed | 3. Sedge |
| 2. Cattail | 4. Spikerush |
| | 5. Wild barley |

EVANS, CHARLES D. *and* KENNETH E. BLACK

1956 *Duck production studies on the prairie potholes of South Dakota*. U. S. Fish and Wildlife Serv., Special Sci. Rept.: Wildlife, no. 32, p. 9.

TENNESSEE

- [1933] "PLANE TABLE MAP OF THE DEPOSITING CREEK BANK"
black and white [1:1,800]

LEGEND

- | | |
|---|--|
| 1. Pasture [and fields] | f. Many shrubs |
| a. Grassy pasture, no trees | g. Many shrubs and tall weeds |
| b. Grassy pasture, few shrubs | 2. Cottonwood, willow, sycamore
plant association |
| c. Many shrubs | 3. Silver maple, white elm
association |
| d. Grassy pasture, few shrubs or
weeds | |
| e. Few shrubs, many weeds | |

Indicates individual large trees of 15 species

SHAVER, JESSE M.

1933 "The influence of climatic and weather factors upon the numbers of birds on a depositing creek bank." *Ecological Monographs*, vol. 3, p. 538.

- 1948 "FOREST TYPES OF TENNESSEE"
blueprint [1:1,000,000]

LEGEND

- | | |
|--------------------------|-------------------------|
| 1. Bottomland hardwoods | 5. White pine-hardwoods |
| 2. Upland hardwoods | 6. Cedar-hardwoods |
| 3. Yellow pine-hardwoods | 7. Cedar |
| 4. Yellow pine | |

TENNESSEE. *Department of Conservation. Forestry Division*

1948 [Nashville], Tennessee Department of Conservation.

- [1950] "GENERALIZED FOREST TYPES IN TENNESSEE"
black and white [1:2,500,000]

LEGEND

- | | |
|------------------------|-------------------------|
| 1. Bottomland hardwood | 4. Southern yellow pine |
| 2. Upland hardwood | 5. White pine |
| 3. Cedar | 6. Large urban area |

UNITED STATES. *Forest Service*

1952 *Forest statistics for Tennessee*. Southern Forest Exp. Sta., Forest Surv. Release no. 70, p. 2. Reprinted, 1955 in color, in Sternitzke, Herbert S., *Tennessee's timber economy*. U. S. Dept. Agr. Forest Resource Rept. no. 9, inserted at back.

[1950] "MAP OF MIDDLE TENNESSEE SHOWING LOCATION OF CEDAR GLADES"
 black and white [1:1,300,000]

LEGEND

1. Cedar glades, limestone

QUARTERMAN, ELSIE

1950 "Major plant communities of Tennessee cedar glades." *Ecology*, vol. 31, p. 235.

1958 "DISTRIBUTION OF VEGETATION IN THE ECOLOGY STUDY AREA OF LOWER WHITE OAK LAKE BED, AUGUST 1958"
 black and white [1:1,670]

LEGEND

- | | |
|--|--------------------------|
| 1. Pines, cedars | 12. <i>Polygonum</i> |
| 2. Grass | 13. <i>Impatiens</i> |
| 3. <i>Eupatorium</i> | 14. <i>Oenothera</i> |
| 4. Mixed forbs: <i>Solidago</i> ,
<i>Eupatorium</i> , <i>Bidens</i> ,
<i>Polygonum</i> , <i>Oenothera</i> ,
ragweed, grasses, <i>Juncus</i> ,
<i>Carex</i> | 15. <i>Amorpha</i> |
| 5. Bushes, small trees | 16. <i>Juncus</i> |
| 6. Bushes, vines | 17. <i>Carex</i> |
| 7. <i>Lonicera</i> | 18. Deciduous trees |
| 8. <i>Lespedeza</i> | 19. <i>Ambrosia</i> |
| 9. <i>Bidens</i> | 20. Fallen tree |
| 10. <i>Salix</i> | 21. Bare area |
| 11. Stump or dead trees | 22. Bushes, weeds |
| | 23. <i>Rosa</i> |
| | 24. Mixed grasses, weeds |
| | 25. <i>Phytolacca</i> |
| | 26. Bushes |

AUERBACH, S. I. and others

1959 "Ecological research." *Oak Ridge National Laboratory, Waste disposal research and engineering, Health Physics Division Annual Progress Report* for period ending July 31, 1959, p. 21.

[1960-1961] "MAJOR FOREST TYPES IN TENNESSEE"
 in color [1:2,500,000]

LEGEND

- | | |
|--------------------|--|
| 1. Oak-gum-cypress | 5. Loblolly-shortleaf pine |
| 2. Oak-hickory | 6. White pine |
| 3. Oak-pine | 7. Nontyped; less than 10 percent forest |
| 4. Cedar | |

UNITED STATES. *Forest Service*

1962 In Sternitzke, Herbert S., *Tennessee forests*. New Orleans, Southern Forest Experiment Station, unnumbered publication, facing p. 4.

TEXAS

- 1881 "MAP OF TEXAS SHOWING THE DISTRIBUTION OF THE PINE FORESTS, WITH SPECIAL REFERENCE TO THE LUMBER INDUSTRY"
in color [1:6,300,000]

LEGEND

1. Short leaved or loblolly pine (*Pinus taeda*) mixed with oak and other hardwoods
2. Short leaved or yellow pine (*Pinus mitis*) mixed with oak and other hardwoods and a little loblolly pine
3. Long leaved pine (*Pinus palustris*)
4. Region from which merchantable pine has been cut

SARGENT, CHARLES SPRAGUE

1884 "Report on the forests of North America (exclusive of Mexico)." U. S. Dept. Interior, Census Office, *Tenth Census of the U. S.*, vol. 9, facing p. 541.

- [1901] "VEGETATION PROVINCES OF THE WEST TEXAS REGION"
black and white [1:15,000,000]

LEGEND

- I. Rio Grande plain, chaparral region
 - A. Lower Sonoran transition to Austro-riparian and semi-tropical
 1. Semi-tropical
 2. Dilute xerophytic tropical
- II. Great Plains region
 - B. Edwards Plateau xerophytic timber province
 3. Edwards Plateau plains, grass formations
 4. Grand Prairie transition, between Lower Sonoran and Austro-riparian, grass formations, adobe vegetation, butte and escarpment timber
 5. Post oak formation on granite, Carboniferous, and upper cross timber sands and gravels
 6. Grass prairie formations of Red beds province; Lower Sonoran with elements of Upper Sonoran
 7. Erosion remnants (buttes) of Staked Plains and Cretaceous area, xerophytic timber
 8. Staked Plains Lower Sonoran
 9. Staked Plains Upper Sonoran
 10. Toyah basin, Pecos valley province
 11. Stockton plateau province, grass formation and yucca belts
 - III. Provinces of Rocky Mountains and south plateau slope
 - C. Extreme Lower Sonoran, bolson flora, chaparral, yucca-agave-cactus formations
 1. Upper Sonoran
 2. Rocky Mountain transition

BRAY, WILLIAM L.

1901 "The ecological relations of the vegetation of western Texas."
Botanical Gazette, vol. 32, p. 116.

- [1903] "TIMBER OF TEXAS, OMITTING MESQUITE, CHAPARRAL, ALLUVIAL BOTTOM
HARDWOODS, AND SWAMP AND BAYOU FOREST"
in color [1:9,500,000]

LEGEND

1. Shortleaf pine
2. Piñon pine (*P. edulis*), Rocky Mountain oaks (*Quercus grisea* and *Q. emoryi*),
and cedars (*Juniperus pachyphloea*, *J. flaccida*, and *J. monosperma*)
3. Loblolly pine
 - a. Isolated bodies of loblolly pine on the Colorado River
4. Longleaf pine forest
5. Western yellow pine (*P. ponderosa*), limber pine (*P. flexilis*), red fir (*Pseudotsuga taxifolia*), and other Rocky Mountain species
6. [Oak forests]
 - a. Post oak lands of the lignitic belt
 - b. Eastern "Cross Timbers"
 - c. Western "Cross Timbers" and post oak of the Carboniferous area
 - d. Post oak of the granite area
7. [Edwards Plateau timber]
 - a. Main body of Edwards Plateau timber
 - b. Scattered bodies of Edwards Plateau type of timber on breaks and along
stream bottoms
8. Coast Plain belt of heavy live oak, which is rapidly spreading on prairie lands
9. Prairie lands with scattered live oak

BRAY, WILLIAM L.

1904 *Forest resources of Texas*. U. S. Dept. Agr., Bur. Forestry,
Bull. no. 47, facing p. 16.

- [1903] "APPROXIMATE AREA AND DISTRIBUTION OF THE ALLUVIAL BOTTOM
HARDWOODS"
in color [1:9,500,000]

LEGEND

1. [Alluvial bottom hardwoods]

BRAY, WILLIAM L.

1904 *Forest resources of Texas*. U. S. Dept. Agr., Bur. Forestry,
Bull. no. 47, facing p. 18.

- [1925] "VEGETATION AREAS IN EAST TEXAS"
black and white [1:4,600,000]

LEGEND

1. *Bulbilis-Andropogon-Sporobolus* and *Spartina-Sporobolus* Associates
2. *Pinus* association
3. *Pinus-Quercus* ecotone. *P. echinata* dominance
4. *Pinus-Quercus* ecotone, *P. taeda* dominance

5. *Quercus-Carya* association
6. *Andropogon-Stipa* association
7. *Quercus-Carya: Andropogon-Stipa* alternes
8. *Quercus-Prosopis-Juniperus* association
9. Areas 6 and 8 alternating
10. Areas 6, 8 and 5 alternating

THARP, BENJAMIN CARROLL

1926 *Structure of Texas vegetation east of the 98th meridian.* Univ. Texas Bull., no. 2606, facing p. 18. (Title from List of Illustrations, p. [3]; legend from Errata sheet inserted at front.)

[1928] "TEXAS, NATIVE VEGETATION"

black and white

[1:8,100,000]

LEGEND

- | | |
|-------------------|--------------------|
| 1. Long leaf pine | 3. Post oak |
| 2. Loblolly pine | 4. Short leaf pine |

SOUTHWESTERN BELL TELEPHONE COMPANY

1928 In Holsen, J. N., S. B. Avis, and Murray Harris, *Economic survey of Texas.* St. Louis, Missouri, Southwestern Bell Telephone Co., General Commercial Engineering Dept., p. 24.

[1930] "THE GEOGRAPHIC REGIONS IN THE PINE FOREST BELT OF EAST TEXAS"

black and white

[1:5,500,000]

LEGEND

- | | |
|--|--------------------------|
| 1. Black waxy prairies | 4. Piney wood region |
| 2. Post-oak forest belt | 5. Gulf coastal prairies |
| 3. Northeast Texas agricultural region | |

CHAMBERS, WILLIAM T.

1930 "Divisions of the pine forest belt of east Texas." *Economic Geography*, vol. 6, p. 95. Reprinted with slight modifications, 1931 [1:7,000,000], in his "The Gulf Port City Region of Texas." *Ibid.*, vol. 7, p. 70.

1931 "MAP SHOWING GENERAL DISTRIBUTION OF NATIVE VEGETATION IN TEXAS"

black and white

[1:9,030,000]

LEGEND

1. Marsh and salt grasses
2. Timbered areas. Shortleaf pine with some hardwoods, mostly oaks, in northern part. Shortleaf, longleaf, and loblolly pine in southern part with small amount of hardwoods
3. Timbered areas. Mainly post-oak with small amount of other oaks and hickory. No pine except on small area in Bastrop County reaching into northwestern Fayette County. Many small prairies included in this division
4. Prairie. Coarse grasses, largely *Andropogons* and many others, some grama grasses in western part

5. Prairie. Coarse bunch grasses, largely certain species of *Andropogon*, *Paspalum*, *Panicum*, and others
6. Prairie. Bunch grasses, largely *Andropogons*; grama; some short grasses (buffalo grass) in places. Small clumps of live-oaks in northwestern part, with few other oaks in scattered growth in places; mesquite trees and shrubs in scattered growth in southern part
7. Brush plains. Largely short grasses, buffalo and curly mesquite. Many shrubs and mesquite trees in scattered growth; these shrubs and trees with prickly pear very thick in places
8. Brush plains. Largely coarse bunch grasses; some grama grasses; scattered growth of mesquite trees and shrubs. Small post-oak trees in certain areas, while some live-oak trees occur in a thick growth in other places
9. Thin cover of short grasses, largely buffalo and mesquite grasses and various others; scattered growth of small trees in many places. These are chiefly live-oak and shin-oak with in eastern sections also some western red-oak, and juniper, and small amounts of post-oak. Many shrubs
10. Timbered mainly, but with included prairies. Many post-oak, some black-jack oak. On prairies coarse grasses mainly with some grama and other grasses. Mesquite trees in southern part
11. Bunch-grass and short-grass plains with scattered mesquite trees and shrubs. Some areas with very coarse bunch grasses and shin-oak shrubs; some places coarse bunch grass, grama, needle, and other grasses; some areas of short grasses (mainly buffalo) with grama
12. Short-grass plains. Mainly buffalo grass with some grama
13. Arid-land vegetation. Very thin growth of grass. On rough highlands mainly sotol, lechuguilla, yucca, catclaw, cenizo, *Nolina*, and various other coarse plants, with, in places, chino, yeso, and tobosa grasses. On lowland mostly creosote bush and tar-bush, with some tussock, burro, and salt grasses
14. Moderate grass cover; largely grama, *Nolina*, tobosa, and others; many small shrubs. On some mountains, oaks, pine, juniper trees in places

CARTER, W. T.

1931 *The soils of Texas*. Texas Agr. Exp. Sta., Bull. no. 431, p. 10, 11. Reprinted, 1941 [1:10,700,000], in: *Texas almanac and state industrial guide, the encyclopedia of Texas*. Dallas, The Dallas Morning News [A. H. Belo Corp.], p. 183.

[1933] "CONTOUR MAP OF ENCHANTED ROCK AND VICINITY [SOUTHERN LLANO COUNTY, TEXAS]"

black and white

[not calculated]

LEGEND

1. Post oak-hickory plain
2. Post oak-hickory ravine

3. Elm-oak plain
4. Mesquite-grassland

WHITEHOUSE, EULA

1933 "Plant succession on central Texas granite." *Ecology*, vol. 14, p. 392.

[1934] "THE PINE WOODS REGION OF SOUTHEASTERN TEXAS"

black and white

[1:4,900,000]

LEGEND

1. Pine Woods Region

2. Post-oak belt

CHAMBERS, WILLIAM T.

1934 "Pine Woods Region of southeastern Texas." *Economic Geography*, vol. 10, p. 302.

[1937] "VEGETATION MAP OF THE LOWER RIO GRANDE VALLEY"
black and white [1:1,500,000]

LEGEND

- | | |
|----------------------------|-----------------------------------|
| 1. Zacatal (prairie grass) | 6. Chaparral |
| 2. Mesquital | 7. Sacahuistal (salt grass) |
| 3. Mesquital-zacatal | 8. Monte del Rio (wooded area) |
| 4. Mesquital-nopalera | 9. Boscaje de palmas (palm grove) |
| 5. Mesquital-chaparral | |

CLOVER, ELZADA U.

1937 "Vegetational survey of the Lower Rio Grande Valley, Texas." *Madroño*, vol. 4, p. 47. Reprinted, 1944 [1:2,500,000], in Wynd, F. L., "The geologic and physiographic background of the soils in the Lower Rio Grande Valley, Texas." *American Midland Naturalist*, vol. 32, p. 203.

[1938] "TEXAS, NATURAL VEGETATION"
in color [1:1,800,000]

LEGEND

- | | |
|--------------------------|-----------------|
| 1. Pine | 5. Desert grass |
| 2. Oak-hickory | 6. Desert shrub |
| 3. Prairie (tall grass) | 7. Juniper |
| 4. Prairie (short grass) | |

DENOYER, L. PHILLIP

1938 *Inset on Clark, J. L., L. W. Newton, and Herbert E. Bolton (eds.), Texas, vegetation and climate.* [Separately published.] Chicago, Denoyer-Geppert Co., Texas history and resources, map no. T14.

1939 "THE DISTRIBUTION OF VEGETATION IN TEXAS"
black and white 1:12,600,000

LEGEND

- | | |
|--|---|
| 1. Longleaf pine | 10. Trans-Pecos: sotol, lechuguilla |
| 2. Coastal prairie | 11. Sandy south plains |
| 3. Fayette prairie | 12. High plains |
| 4. Mesquite-chaparral | 13. Mesquite-grassland |
| 5. Coastal sand dunes | 14. Western cross timbers, oak-hickory |
| 6. Granite soil with oak and mesquite | 15. Eastern cross timbers, oak-hickory |
| 7. Edwards Plateau, oak-cedar | 16. Oak-hickory |
| 8. Mountains: Guadalupe, Davis, Glass, Cathedral, Cehenati, Chisos | 17. Loblolly pine, shortleaf pine and oak-hickory |
| 9. Live-oak, mesquite and Acacia on short grass | 18. Black land prairie |

THARP, BENJAMIN CARROLL

1944 In Wynd, F. L., "The geologic and physiographic background of the soils in the Lower Rio Grande Valley, Texas." *American Midland Naturalist*, vol. 34, p. 201.

- 1939 "EAST TEXAS POST OAK BELT, TEXAS SURVEY UNIT 3"
black and white [1:2,900,000]

LEGEND

1. Pine type 2. Post oak type

UNITED STATES. *Forest Service*

1940 In Davis, V. B., *A cursory survey of the forest resource of the east Texas post oak belt*. Southern Forest Exp. Sta., Forest Surv. Release no. 52, p. 3.

- [1939] "[MAJOR FOREST TYPES OF SOUTHEASTERN TEXAS]"
in color [1:970,000]

LEGEND

1. Longleaf 4. Scrub hardwoods
2. Shortleaf-loblolly-hardwoods 5. Mixed bottom-land hardwoods
3. Loblolly-hardwoods 6. Marsh or prairie

CRUIKSHANK, J. W. and I. F. ELDREDGE

1939 *Forest resources of southeastern Texas*. U. S. Dept. Agr., Misc. Publ. no. 326, inserted at back.

- [1941] "EAST AND WEST CROSS TIMBERS OF TEXAS"
black and white [1:8,400,000]

LEGEND

1. East cross timbers 2. West cross timbers

[Major forest type, Post oak-blackjack oak]

BAUDENDISTER, M. E.

1941 *The East and West Cross Timbers of Texas*. Southern Forest Exp. Sta., Southern Forestry Notes, no. 38, p. [3].

- [1942] "MAP OF KERR COUNTY SHOWING LOCATION OF VEGETATIVE AREAS"
black and white [1:702,000]

LEGEND

1. Liveoak-shinoak divide 4. Liveoak-Spanish oak erosion area
2. Blackjack divide
3. Blackjack 5. Cedar brakes

BUECHNER, HELMUT KARL

1944 "The range vegetation of Kerr County, Texas, in relation to livestock and white-tailed deer." *American Midland Naturalist*, vol. 31, p. 709.

[1946] "FLORA OF THE CHIHUAHUAN DESERT [IN THE BIG BEND REGION OF TEXAS, CHIHUAHUA AND COAHUILA]"

black and white

[1:7,700,000]

LEGEND

- | | |
|------------------------------|---|
| 1. <i>Larrea-Flourensia</i> | 3. <i>Acacia-Leucophyllum-Portieria</i> |
| 2. <i>Larrea-lechuguilla</i> | |

TINKHAM, ERNEST R.

1948 "Faunistic and ecological studies on the Orthoptera of the Big Bend region of Trans-Pecos Texas, with especial reference to the Orthopteran zones and faunae of midwestern North America." *American Midland Naturalist*, vol. 40, p. 524.

[1946] "THE FORT WORTH PRAIRIE"

black and white

[1:1,500,000]

LEGEND

- | | |
|--------------------------|--------------------------|
| 1. Fort Worth prairie | 3. Eastern Cross Timbers |
| 2. Western Cross Timbers | 4. Black prairie |

DYKSTERHUIS, E. J.

1946 "The vegetation of the Fort Worth prairie." *Ecological Monographs*, vol. 16, p. [3].

[1947] "PRINCIPAL BIOTIC AREAS OF THE TRANS-PECOS REGION"

black and white

[1:4,900,000]

LEGEND

- | | |
|-------------------------------------|---|
| 1. Desert grassland biotic district | [including piñon-juniper life belt and oak-juniper life belt] |
| 2. Desert scrub biotic district | |
| 3. Navahonian biotic province | 4. Mesquite-sage association |

BUECHNER, HELMUT KARL

1950 "Life history, ecology, and range use of the pronghorn antelope in Trans-Pecos Texas." *American Midland Naturalist*, vol. 43, p. 271.

[1949] "MAP SHOWING AREAS OF RECOGNIZED ECOLOGICAL ASSOCIATIONS ON THE C. ESPY MILLER RANCH IN THE SIERRA VIEJA BIOTIC DISTRICT"

black and white

[1:100,000]

LEGEND

- | | |
|-------------------|-------------------------------------|
| 1. Catclaw-cedar | 4. Creosote bush-catclaw-blackbrush |
| 2. Catclaw-tobosa | 5. Mesquite-huisache-blackbrush |
| 3. Tobosa-grama | 6. Yucca-blackbrush-grama |

YORK, CHRISTOPHER L.

1949 "The physical and vegetational basis for animal distribution in the Sierra Vieja Range of southwestern Texas." *Texas Jour. Sci.*, vol. 1, no. 3, p. 60. (Also printed by error, 1949, in *Texas Jour. Sci.*, vol. 1, no. 2, p. 56.)

- [1950] "FOREST REGIONS OF TEXAS"
 black, white and green [1:6,400,000]

LEGEND

- | | |
|------------------------|-----------------------|
| 1. Pines and hardwoods | 5. East Cross Timbers |
| 2. Cedar breaks | 6. Mesquite |
| 3. Post oak | 7. Mountain forests |
| 4. West Cross Timbers | |

ANON.

1950 *Texas forests and Texans*. Texas Forest Serv., Cir. no. 24, inserted at front.

- [1953] "GENERALIZED VEGETATION MAP, TRANS-PECOS REGION, TEXAS"
 black and white [1:2,000,000]

LEGEND

- | | |
|--|---|
| 1. Grassland | 6. Juniper-creosote-catclaw-lechuguilla-cactus |
| 2. Grassland-creosote-tarbush | 7. Creosote-chaparral |
| 3. Tarbush-creosote brushland | 8. Mixed brush & grass (sparsely vegetated mountains) |
| 4. Mesquite-sand dunes | 9. Juniper-oak woodland |
| 5. Chino grass-creosote-catclaw-lechuguilla-stool-cactus | 10. Pinon-juniper-oak woodland |

UZZELL, P. B., T. D. MOORE and O. C. WALLMO

[1953] *Job completion report, project no. W-57-R-1, job 1*. [Austin, Texas Fish and Game Comm.], p. [4].

- [1954] "GENERAL VEGETATIVE TYPES MASON, LLANO, GILLESPIE AND KERR COUNTIES"
 black and white [1:638,500]

LEGEND

1. Granite soil—liveoak, post oak, blackjack, mesquite, white brush & tasajillo cactus
2. Sandstone & limestone soil—liveoak, black persimmon & elm
3. Limestone soil—upland divide—liveoak, shinoak, post oak & blackjack
4. Limestone soil—liveoak, Spanish oak & lacey oak
5. Sandy soil—post oak, liveoak, blackjack & mesquite
6. Cedar

UNITED STATES. *Soil Conservation Service*

[1954] *In Walker, Eugene A., and Robert R. Ramsey, Job completion report, project no. W-62-R-1, Job no. 1*. [Austin, Texas Game and Fish Comm.], p. [3].

- 1954 "HABITAT SITES, RED RIVER COUNTY, TEXAS"
 black and white [1:275,500]

LEGEND

- | | |
|---------------------------|---------------------------|
| A. Forested coastal plain | 2. Pine site |
| 1. Oak site | 3. Mature bottomland site |

- | | |
|--------------------------------|------------------------------|
| B. Blackland prairie | FCP [forested coastal plain] |
| 4. Upland prairie site | site |
| 5. Eroded prairie site | C. Red River terrace (site) |
| 6. Deposited blackland site | 8. [Red River terrace site] |
| 7. Deposited blackland site in | |

Also indicates by symbol the percentage of forested land

CHAMBERS, GILBERT V.

[1954] *In* Inglis, Jack M., and Gilbert V. Chambers, *Special report, Project no. W-61-R-1, 2, Job no. 1.* [Austin, Texas Game and Fish Comm.], p. [27].

- 1954 "HABITAT SITES, FANNIN COUNTY, TEXAS"
black and white

[1:253,400]

LEGEND

- | | |
|---------------------------|-------------------------------|
| A. Forested coastal plain | 4. Upland prairie site |
| 1. Oak site | 5. Eroded prairie site |
| 2. Pine site | 6. Deposited blackland |
| 3. Mature bottomland site | 7. Deposited blackland in the |
| B. Blackland prairies | FCP [forested coastal plain] |

Also indicates by symbol the percentage of forested land

CHAMBERS, GILBERT V.

[1954] *In* Inglis, Jack M., and Gilbert V. Chambers, *Special report, project no. W-61-R-1, 2, Job no. 1,* [Austin, Texas Game and Fish Comm.], p. [26].

- 1954 "HABITAT SITES, TITUS COUNTY, TEXAS"
black and white

[1:204,400]

LEGEND

- | | |
|---------------------------|-------------------------------|
| A. Forested coastal plain | 5. Eroded prairie site |
| 1. Oak site | 6. Deposited prairie site |
| 2. Pine site | 7. Deposited blackland in FCP |
| 3. Mature bottomland site | [forested coastal plain] site |
| B. Blackland prairie | C. Red River terrace (site) |
| 4. Upland prairie site | 8. [Red River terrace site] |

Also indicates by symbol the percentage of forested land

CHAMBERS, GILBERT V.

[1954] *In* Inglis, Jack M., and Gilbert V. Chambers, *Special report, project no. W-61-R-1, 2, Job no. 1.* [Austin, Texas Game and Fish Comm.], p. [28].

- [1955] "MAJOR FOREST TYPES IN EAST TEXAS"
in color

[1:2,300,000]

LEGEND

- | | |
|----------------------------|-----------------------------------|
| 1. Loblolly-shortleaf pine | 4. Oak-hickory |
| 2. Longleaf-slash pine | 5. Oak-gum-cypress |
| 3. Oak-pine | 6. Nontyped; less than 10% forest |

ANON.

1956 *Forests of East Texas, 1953-55*. Southern Forest Exp. Sta., Forest Surv. Release no. 77, p. 2.

[1958] "VEGETATION BELTS OF THE DALLAS-FORT WORTH AREA"
black and white [1:2,400,000]

LEGEND

- | | |
|----------------------|---|
| 1. Pine belt | 5. East cross timbers |
| 2. Eastern oak belt | 6. Grand prairie |
| 3. Prairie border | 7. West cross timbers (eastern portion) |
| 4. Blackland prairie | |

SKINNERS, LLOYD H.

1958 *Spring flora of the Dallas-Fort Worth area*. Dallas, Texas, Southern Methodist University, p. 435.

1959 "MAP OF VEGETATION TYPES IN THE RIO GRANDE PLAINS"
black and white [1:2,200,000]

LEGEND

- | | |
|--------------------------------|------------------------------------|
| 1. Deep sands—live oak | 5. Shallow soils—guajillo |
| 2. Deep sands—post oak | 6. Shallow soils—Rio Gr. r. slopes |
| 3. Deep sands—mesquite | 7. Shallow soils—freer mixed br. |
| 4. Deep loams & clays—mesquite | 8. Saline soils—low brush |

UNITED STATES. *Soil Conservation Service*

1961 In Davis, R. B., *Effects of brush control on wildlife in the Rio Grande Plains. Job no. 10. Diet of whitetailed deer on selected areas of controlled and uncontrolled brush in the Rio Grande Plains*. Austin, Texas Game and Fish Comm., Job Completion Rept., Federal Aid in Wildlife Restoration Act, Texas, Project no. W-84-R-2, Job no. 10, p. 2.

[1959] "[VEGETATION MAP] OF SOUTHEASTERN TEXAS COUNTIES"
black and white [1:267,000]

LEGEND

- | | |
|---------------|--------------------|
| 1. Bottomland | 4. Coastal prairie |
| 2. Industrial | 5. Pine-hardwood |
| 3. Marsh | 6. Hardwood-pine |

WRIGHT, WILLIAM T.

1960 *Southeast Texas game management survey, game habitat mapping*. [Austin, Texas Fish and Game Comm.], Job Completion Rept., Project no. W-77-R-2, Job no. 1.

Names of counties and pages on which they are printed: Hardin, p. 11; Jasper, pp. 18-19; Jefferson, p. 4; Newton, pp. 22-23; Orange, p. 7; Tyler, p. 14.

[1960] "VEGETATIONAL AREAS OF TEXAS"
in color [1:6,100,000]

LEGEND

1. Pineywoods
2. Gulf prairies and marshes
3. Post oak savannah
4. Blackland prairies
5. Cross timbers and prairies
6. South Texas plains
7. Edwards Plateau
8. Rolling plains
9. High plains
10. Trans-Pecos, mountains and basins

GOULD, FRANK W., GARLYN O. HOFFMAN *and* CLARENCE A. RECHENTHIN

1960 *Vegetational areas of Texas*. College Station, Texas, Texas Agr. Exp. Sta., Texas Agr. Extension Serv., [Leaflet] no. L-492, p. [1].

UTAH

[1912] "SKETCH MAP SHOWING THE DISTRIBUTION AND RELATIVE AREAS OF THE DIFFERENT TYPES OF VEGETATION IN TOOELE VALLEY"

in color

[1:330,000]

LEGEND

- | | |
|---|---|
| 1. Sage brush association | 6. Salt flat vegetation |
| 2. <i>Kochia</i> association | 7. Juniper with sage brush |
| 3. Shadscale association | 8. Sand hill mixed association |
| 4. Greasewood-shadscale association | 9. Grass flat vegetation |
| 5. Salt flat vegetation alternating with the greasewood-shadscale association | 10. Natural vegetation removed by cultivation or fire |

KEARNEY, T. H. *and others*

1914 "Indicator significance of vegetation in Tooele Valley, Utah." *Journal of Agricultural Research*, vol. 1, facing p. 418.

[1912] "DETAIL OF VEGETATION WEST OF GRANTS"

in color

[1:170,000]

LEGEND

1. Salt flat vegetation
2. Greasewood-shadscale association

KEARNEY, T. H. *and others*

1914 "Indicator significance of vegetation in Tooele Valley, Utah." *Journal of Agricultural Research*, vol. 1, facing p. 418, inset.

1912 "PLANT TYPES AND DENSITY OF VEGETATION ON WATERSHEDS A AND B [ON MANTI NATIONAL FOREST] IN 1912"

black and white

[1:4,200]

LEGEND

- | | |
|---|----------------------------------|
| 1. Yarrow-needle grass-cinquefoil | 6. Larkspur-pentstemon-knotweed |
| 2. Yarrow-knotweed | 7. Yellow brush-sweet sage-vetch |
| 3. Pentstemon-larkspur-sweet sage | 8. Elder |
| 4. Wild currant-yarrow | 9. Alpine fir |
| 5. Nevada bluegrass-wheatgrass-needle grass | |

Vegetation density is also indicated by percentage of ground covered

SAMPSON, A. W.

1931 In Forsling, C. L., *A study of the influence of herbaceous plant*

cover on surface run-off and soil erosion in relation to grazing on the Wasatch Plateau in Utah. U. S. Dept. Agr., Tech. Bull. no. 220, p. 16.

- 1924 "PLANT TYPES AND DENSITY OF VEGETATION ON WATERSHED A AND B [ON MANTI NATIONAL FOREST] IN 1924"
black and white [1:4,200]

LEGEND

- | | |
|---|--|
| 1. Yarrow-needle grass-wheatgrass | 8. Dandelion-sweet sage-currant |
| 2. Yarrow-false cymopterus-dandelion | 9. Wheatgrass-manyflowered brome |
| 3. Nevada bluegrass-wheatgrass-yarrow | 10. Mountain-dandelion-yarrow-sweet sage |
| 4. Sweet sage-yarrow-Kentucky bluegrass | 11. Sweet sage-mountain-dandelion-larkspur |
| 5. Wheatgrass-pentstemon-sweet sage | 12. Wild currant |
| 6. Elder | 13. Wheatgrass-wild currant |
| 7. Nevada bluegrass-wild currant-wheatgrass | 14. Alpine fir |

Vegetation density is also indicated by percentage of ground covered

FORSLING, C. L.

1931 *A study of the influence of herbaceous plant cover on surface run-off and soil erosion in relation to grazing on the Wasatch Plateau in Utah.* U. S. Dept. Agr., Tech. Bull. no. 220, p. 17.

- 1931 "LAND CLASSIFICATION MAP OF UTAH, SHOWING DISTRIBUTION OF CLOUDBURST FLOODS"
in color 1:750,000

LEGEND

- | | |
|-----------------------|------------------------|
| A. Farming land types | 7. Sagebrush |
| 1. Grain crop land | 8. Shadscale |
| 2. Forage crop land | 9. Greasewood |
| 3. Irrigated land | 10. Creosote |
| B. Grazing land types | C. Other types |
| 4. Sub-alpine | 11. Water surface |
| 5. Mountain brush | 12. Unclassified . . . |
| 6. Woodland | 13. Irrigable |

UNITED STATES. *Geological Survey. Conservation Branch*

1946 In Marshall, Ray E., "Physiographic features." In Woolley, Ralf R., *Cloudburst floods in Utah, 1850-1938.* U. S. Geol. Surv., Water-Supply Paper no. 994, pl. 6, in pocket.

- 1938 "RICH COUNTY, UTAH, RANGE TYPE MAP"
black and white [1:255,000]

LEGEND

- | | |
|---------------|--------------------|
| 1. Cultivated | 3. Mountain browse |
| 2. Sagebrush | 4. Conifer |

- 5. Pinon-juniper
- 6. Aspen

- 7. Desert shrub
- 8. Greasewood

STODDART, L. A.

1940 *Range resources of Rich County, Utah*. Utah Agr. Exp. Sta., Bull. no. 291, facing p. 10.

- [1938] "SKETCH MAP SHOWING THE DISTRIBUTION OF SOME VEGETATION TYPES AND VARIATION OF PRECIPITATION IN THE HENRY MOUNTAINS REGION, UTAH" in color 1:250,000

LEGEND

- | | |
|---------------------------|--|
| 1. Subalpine grassland | 8. Blackbrush association |
| 2. Spruce-fir forest | 9. Sand sagebrush association |
| 3. Yellow pine forest | 10. Mat saltbush association |
| 4. Mountain shrub land | 11. Salt desert shrub |
| 5. Piñon-juniper woodland | 12. Undivided vegetation types, 6-10 or 6-11 |
| 6. Sagebrush association | |
| 7. Shadscale association | |

Types 6-10 are classed together as "Northern desert shrub."

HUNT, CHARLES B., PAUL AVERITT and RALPH L. MILLER

1953 *Geology and geography of the Henry Mountains region, Utah*. U. S. Geol. Surv., Prof. Paper no. 228, plate 3 in pocket.

- [1938] "MAP OF PARRISH CREEK CATCHMENT BASIN SHOWING VEGETAL COVER" black and white [1:34,200]

LEGEND

- 1. Medium oak and sagebrush, grass. 70-80 percent cover
- 2. Heavy oak and maple brush, grass and weed undergrowth. 90-100 percent cover
- 3. Oak and maple brush, light grass and weeds; gneiss outcrops. 80-90 percent cover
- 4. Dense brush, grass and weed undergrowth, scattered firs and quaking aspen. 100 percent cover
- 5. Medium growth of fir and maple; dense brush undergrowth. 100 percent cover
- 6. Medium brush and grass; scattered fire and quaking aspen. 70-80 percent cover
- 7. Oak and sagebrush, scattered firs and quaking aspen. 60-70 percent cover

WOOLLEY, RALF R.

1946 *Cloudburst floods in Utah, 1850-1938*. U. S. Geol. Surv., Water Supply Paper no. 994, p. 66.

- [1938] "MAP OF SNOWSLIDE CANYON SHOWING VEGETAL COVER" black and white [incalculable]

LEGEND

- 1. Steep cliffs and narrow talus slopes. Erosion of the main channel has prevented the establishment of much soil. Talus slopes are partly covered with mountain brush

2. Fairly dense oak and mountain brush cover 2 to 15 feet high, 85 percent. Soil shallow, rocky
3. Medium growth of evergreen with maple and birch brush. 100 percent cover. Soil perpetually wet, slopes steep (38°-40°)
4. Sparse cover of small brush and plants under 4 feet, 25-40 percent. Rock slides and outcrops 60 percent.
5. Medium dense mountain brush 8 to 18 feet high, 70-85 percent cover. Soil deep and well established
6. Medium dense mountain brush under 4 feet high. 70-85 percent cover. Soil deep to shallow and rocky
7. Cliff outcrops and talus slopes. Brush well established on talus, 35-50 percent cover, remainder bare rock
8. North slope vegetation, evergreens, and mountain brush, 70-85 percent cover. Steep slopes (up to 40°)
9. Very heavy brush, 8 to 18 feet high, 85-95 percent cover. Soil deep and well established, slopes steep (39° to 40°)
10. Bare rock slides. Sparse brush and scattered plants under 4 feet high, 20-30 percent cover. Soil very shallow and poorly developed, fines lacking, slopes steep (36° to 40°)

WOOLLEY, RALF R.

1946 *Cloudburst floods in Utah, 1850-1938*. U. S. Geol. Surv., Water Supply Paper no. 994, p. 68.

[1938] "MAP OF LOST CANYON SHOWING VEGETAL COVER"

black and white

[incalculable]

LEGEND

1. Thick brush, oak and some maple, 85-95 percent cover
2. Heavy brush; 90-100 percent cover
3. Medium brush, scattered fir, 60-70 percent cover
4. Alternating quartzite and limestone ledges
5. Light brush, 50-60 percent cover. Limestone ledges
6. Rock. Grass and light brush, 5-10 percent cover
7. Oak and maple brush, 60-70 percent cover
8. Light brush, scattered fir, 30-40 percent cover
9. Light brush and grass, 30-40 percent cover
10. Grass, scattered brush, 10-20 percent cover

WOOLLEY, RALF R.

1946 *Cloudburst floods in Utah, 1850-1938*. U. S. Geol. Surv., Water Supply Paper no. 994, p. 70.

[1939] "VEGETATION IN ESCALANTE VALLEY, UTAH"

in color

[1:371,000]

LEGEND

- | | |
|---|--|
| <p>A. Juniper</p> <p>1. [Juniper]</p> <p>B. Sagebrush</p> <p>2. Sagebrush and little rabbitbrush</p> <p>3. Sagebrush, galleta, and little rabbitbrush</p> | <p>4. Young sagebrush</p> <p>5. Sagebrush and winterfat</p> <p>C. Shadscale</p> <p>6. Shadscale and little rabbitbrush</p> <p>7. Shadscale and winterfat</p> <p>8. Shadscale and sagebrush</p> |
|---|--|

- | | |
|---|---|
| D. Greasewood and shadscale | 15. Galleta and winterfat |
| 9. Greasewood | F. Minor communities |
| 10. Saltgrass and pickleweed | 16. Fourwing saltbush |
| 11. Greasewood and sagebrush | 17. Fourwing saltbush and
little rabbitbrush |
| E. Galleta, little rabbitbrush and
winterfat | 18. Sand hummocks |
| 12. Galleta | 19. Bare flats |
| 13. Little rabbitbrush | 20. Vegetation destroyed |
| 14. Winterfat | |

SHANTZ, HOMER LEROY *and* R. L. PIEMEISEL

1940 *Types of vegetation in Escalante Valley, Utah, as indicators of soil conditions.* U. S. Dept. Agr., Tech. Bull. no. 713, inserted at back.

1941 "SANPETE COUNTY, UTAH"
in color 1:472,500

LEGEND

- | | |
|-----------------------------|-----------------------|
| 1. Fir, spruce, browse | 5. Cultivated land |
| 2. Aspen, fir, browse | 6. Salt-grass meadows |
| 3. Oak-brush, sage, juniper | 7. Native meadows |
| 4. Salt-brush, greasewood | |

SOUTHWEST INTERMOUNTAIN COMMITTEE

1941 U. S. Department of Agriculture. Albuquerque, N. M.

[1947] "BELT TRANSECT SHOWING MAJOR PLANT COMMUNITIES IN RELATION TO EXPOSURE, SLOPE STEEPNESS, AND POSITION ON SLOPE [MANTI CANYON, MANTI NATIONAL FOREST, UTAH]"
black and white [1:22,000]

LEGEND

- | | |
|------------------|--------------|
| 1. Conifer | 4. Shrub |
| 2. Aspen | 5. Talus |
| 3. Conifer-aspen | 6. Grassland |

ELLISON, LINCOLN

1954 "Subalpine vegetation of the Wasatch Plateau, Utah." *Ecological Monographs*, vol. 24, p. 99.

1949 "COVER TYPE MAP OF UTAH"
black and white [1:1,200,000]

LEGEND

- | | |
|-------------------|---------------------|
| 1. Tundra | 8. Blackbrush |
| 2. Conifers aspen | 9. Grassland |
| 3. Mountain brush | 10. Creosote brush |
| 4. Pinyon juniper | 11. Cultivated land |
| 5. Sagebrush | 12. Marsh |
| 6. Shadscale | 13. Lakes |
| 7. Greasewood | |

WOODBURY, ANGUS M. *and* EARL W. SMART

1949 [Separately published by Dr. Woodbury.] Salt Lake City, Utah, Dept. Vertebrate Zool.

- 1953 "DUGWAY [UTAH] PROVING GROUND, VEGETATION"
green and white [1:302,000]

LEGEND

- | | |
|--------------------------|----------------------|
| 1. Juniper woodland | 3. Salt desert shrub |
| 2. Northern desert shrub | 4. Barren |

ROBISON, WILLIAM C. and WILLARD C. HESSEN

1954 *Environmental handbook for Dugway Proving Ground*. Natick, Massachusetts, U. S. Army, Headquarters Quartermaster Res. & Develop. Command, Environmental Protection Div., Rept. no. 227, p. 17.

- 1954 "DUGWAY BASE MAP OF ECOLOGICAL COMMUNITIES, GREAT SALT LAKE DESERT"
black and white [1:235,000]

LEGEND

- | | |
|------------------------------------|-------------------------|
| 1. Salt flats | 7. Shadscale-bursage |
| 2. Pickleweed | 8. Shadscale-white sage |
| 3. Greasewood | 9. Mixed brush |
| 4. Shadscale-gray molly-greasewood | 10. Juniper-brush |
| 5. Shadscale-gray molly | 11. Stabilized dunes |
| 6. Shadscale | 12. Active dunes |

WOODBURY, ANGUS M. and DEAN VEST

1954 *Dugway, Utah*, University of Utah, Ecol. Res.

- [1961] "RANGE TYPES OF UTAH"
in color 1:975,000

LEGEND

- | | |
|----------------------|--|
| A. Desert types | D. Mixed types |
| 1. Salt-desert shrub | 10. Juniper-piñon and sagebrush |
| 2. Blackbrush | 11. Juniper-piñon and blackbrush |
| 3. Plains grassland | 12. Sagebrush and plains grassland |
| B. Foothill types | 13. Salt-desert shrub and plains grassland |
| 4. Sagebrush | 14. Cultivated land |
| 5. Juniper-piñon | 15. Barren land |
| 6. Mountain brush | |
| C. Mountain types | |
| 7. Conifer | |
| 8. Aspen | |
| 9. Mtn. grassland | |

SMITH, A. D.

1961 *In* Vallentine, John F., *Important Utah range grasses*. Logan, Utah State Univ., Extension Cir., no. 281.

VERMONT

- [1760] "RECONSTRUCTION OF THE NATURAL VEGETATION OF THE SOUTHERN PART OF VERMONT VALLEY AS IT WAS AT THE TIME OF SETTLEMENT"
 black and white [1:170,000]

LEGEND

- | | |
|-----------------|-------------------|
| 1. <i>Carex</i> | 4. White pine |
| 2. Beech | 5. Mixed hardwood |
| 3. Tamarack | 6. Heath |

DODGE, STANLEY D.

1932 "The Vermont Valley: a chorographical study." *Papers Michigan Acad. Sci., Arts and Lett.*, vol. 16 (1931), p. 247. Reprinted, 1932 in his "The Vermont Valley: a chorographical study." *Michigan Papers in Geogr.*, vol. 2, p. 247.

- [1953] "PRINCIPAL FOREST TYPES OF VERMONT"
 black and white [1:2,700,000]

LEGEND

- | | |
|----------------------|--------------------------|
| 1. Spruce-fir | 3. White pine-transition |
| 2. Northern hardwood | hardwoods |

ANON.

1953 *Vermont forest facts*, 1953 edition. Washington, Amer. Forest Products Industries, Inc., p. 6.

VIRGINIA

- 1917 "THE FOREST AREAS OF ALEXANDRIA COUNTY, VA."
black and white [1:63,400]

LEGEND

1. Pine [*Pinus virginiana*] 2. Hardwoods

DUNWOODY, W. B.

1917 *The forests of Alexandria County, Virginia.* Virginia Geol. Comm., Office State Forester, Bull. no. 13, preceding p. 1.

- 1917 "THE FORESTS OF TAZEWELL COUNTY, VA."
black and white [1:126,720]

LEGEND

1. Virgin timber 4. Cutover land
2. Balsam fir 5. Cleared land
3. Virgin, poplar removed

SCHWAB, W. G.

1917 *The forests of Tazewell County, Virginia.* Virginia Geol. Comm., Office State Forester, Bull. no. 18, in pocket.

- [1938] "FOREST TYPES IN VIRGINIA"
black and white [1:1,800,000]

LEGEND

- A. Mixed hardwoods
1. Mixed hardwoods with pine
2. Mixed hardwoods with spruce and fir
3. Mixed hardwoods with white pine & hemlock
B. [Pines-hardwoods]
4. Short leaf pine and Virginia scrub pine with mixed hardwoods
C. Loblolly pine
5. Loblolly pine with cypress
6. Loblolly pine with red gum
7. Loblolly pine with white cedar
8. Loblolly pine with mixed hardwoods
9. Loblolly pine with Virginia scrub pine
10. Loblolly pine with short-leaf pine

VIRGINIA. *Forest Service*

1940 In Anon., "Virginia's forest resources, problems, and requirements." In: *Hearings before the Joint Committee on forestry*, Congress of the United States, seventy-sixth Congress, third session, on S.

Con. Res. 31 (75th Congress), and H. Con. Res. 11 and 23 (76th Congress), concurrent resolution to establish a joint committee on forestry. Part 10, special hearing on pulpwood prices, Washington, D. C., March 2, 1940. Washington, U. S. Govt. Printing Office, facing p. 66.

1941 "MAJOR FOREST TYPES, STATE OF VIRGINIA"
in color [1:1,000,000]

LEGEND

- | | |
|-----------------------------|-----------------------------------|
| 1. Shortleaf pine-hardwoods | 5. Virginia pine-hardwoods |
| 2. Loblolly pine-hardwoods | 6. Shortleaf-pitch pine-hardwoods |
| 3. Mountain hardwoods | 7. White pine-hardwoods |
| 4. Bottom-land hardwoods | 8. Marsh or beach |

ANON.

1941 Appalachian Forest Exp. Sta. [former name for Southeastern Forest Exp. Sta.]. Reprinted, 1949 [1:1,700,000], in Craig, Ronald B., *Virginia forest resources and industries*. U. S. Dept. Agr., Misc. Publ. no. 681, inserted at back.

1953 "FORT LEE, VIRGINIA, VEGETATION"
green and white [1:81,200]

LEGEND

- | | |
|----------------------------|-----------------------------------|
| 1. Little or no vegetation | 3. Forest, predominantly pine |
| 2. Grass or crops | 4. Forest, predominantly hardwood |

ROBINSON, WILLIAM C., WILLARD C. HESSEN and DONALD W. HOGUE

1954 *Handbook of Fort Lee environment*. Natick, Massachusetts, U. S. Army, Headquarters Quartermaster Res. & Develop. Command, Environmental Protection Div., Rept. no. 231, p. 11.

1955 "CONTOUR MAP OF THE UPPER PART OF VALLEY 1, ON THE WEST SIDE OF CRAWFORD MOUNTAIN, SHOWING THE DISTRIBUTION OF FOREST TYPES"
black and white [1:5,900]

LEGEND

- | | |
|----------------------------|---|
| 1. Yellow pine forest type | 3. Concentration of young black locust trees in oak forest type |
| 2. Oak forest type | |

HACK, JOHN T. and JOHN C. GOODLETT

1960 *Geomorphology and forest ecology of a mountain region in the central Appalachians*. U. S. Geol. Surv., Prof. Paper no. 347, p. 23.

1955-56 "MAP OF LITTLE RIVER AREA, VIRGINIA, SHOWING FOREST TYPES AND 1949 FLOOD DAMAGE"
in color 1:31,680

LEGEND

1. Northern hardwood forest type:
Basswood (*Tilia americana*), sugar-maple (*Acer saccharum*), and yellow birch

(*Betula lutea*), or any one of the three are present. Pitch-pine (*Pinus rigida*) and table-mountain pine (*Pinus pungens*) absent, or very rare. Usually contains red oak (*Quercus rubra*) and, in some places, chestnut-oak (*Q. prinus*); other species of oak absent; oaks generally few in number. Ground cover consists of ferns and thin-leaved herbaceous plants; climbing vines common. Characteristic of hollows, channelways, and flood plains.

2. Yellow pine forest type:

Pitch-pine (*Pinus rigida*) and table-mountain pine (*P. pungens*), or either one of the two, are present. Basswood, sugar-maple, and yellow birch absent to very rare. Usually contains several species of oak (chestnut-oak, red oak, black oak—*Quercus velutina*, and scarlet oak—*Q. coccinea*) in the canopy layer and often scrub-oak (*Q. ilicifolia*) in the bushy understory layer. Ground cover brushy with heath plants (*Ericaceae*) abundant. Characteristic of noses

3. Oak forest type:

Pitch-pine, table-mountain pine, basswood, sugar-maple, and yellow birch absent or very rare. Forest consists largely of oaks (chestnut-oak, red oak, black oak, scarlet oak, and white oak—*Q. alba*). Ground cover generally ericaceous. Characteristic of side slopes

HACK, JOHN T. and JOHN C. GOODLETT

1960 *Geomorphology and forest ecology of a mountain region in the central Appalachians*. U. S. Geol. Surv., Prof. Paper no. 347, in pocket.

1957 MAJOR FOREST TYPES—VIRGINIA”

in color

[1:1,900,000]

LEGEND

- | | |
|-----------------------|----------------------------------|
| 1. Loblolly pine | 6. Hard maple-beech-yellow birch |
| 2. Shortleaf pine | 7. Oak-hickory-scrub oak |
| 3. Virginia pine | 8. Oak-gum-cypress |
| 4. White pine-hemlock | 9. Unproductive |
| 5. Hardwood-pine | 10. Nonforest |

ANON.

1959 In Larson, Robert W., and Mackay B. Bryan, *Virginia's timber*. Southeastern Forest Exp. Sta., Forest Surv. Release no. 54, inserted at back.

WASHINGTON

- [1898] "MAP OF WASHINGTON FOREST RESERVE, SHOWING DISTRIBUTION OF
TIMBER SPECIES"
in color [1:386,000]
- LEGEND
- | | |
|--|------------------------|
| 1. Red fir zone | 3. Alpine zone |
| 2. Hemlock, cedar, and white fir
zone | 4. Lodgepole pine zone |
| | 5. Yellow pine zone |
- AYRES, H. B.
1899 *Washington Forest Reserve*. U. S. Geol. Surv., Ann. Rept. no.
19 (1897-1898), pt. 5 (Forest reserves), pl. 75 in atlas.
- [1917] "DIAGRAM OF PLANT ASSOCIATIONS IN THE COVINGTON DEPRESSION [NEAR
COVINGTON, WASHINGTON]"
black and white incalculable
- LEGEND
- | | |
|----------------------------|----------------------------------|
| 1. <i>Carex-Sphagnum</i> | 3. <i>Populus-Polytrichum</i> |
| 2. <i>Spiraea-Sphagnum</i> | 4. <i>Pseudotsuga-Gaultheria</i> |
- RIGG, GEORGE B.
1919 *Early stages in bog succession*. Publ. Puget Sound Biol. Sta.,
vol. 2, p. 200.
- [1929] "SKETCH MAP OF GOOSE LAKE, DRAWN TO SCALE FROM A VERTICAL AERIAL
PHOTOGRAPH, SHOWING VEGETATION ZONES AND OPEN WATER"
black and white [1:8400]
- LEGEND
- | | |
|----------------------|--|
| 1. Willow-alder | 6. Douglas fir forest |
| 2. Sedge | 7. Douglas fir forest with cedar
and spruce |
| 3. <i>Fontinalis</i> | 8. Lodgepole pine forest |
| 4. Cottonwood | |
| 5. Weed | |
- KIENHOLZ, RAYMOND
1931 "The vegetation of a lava-formed lake in the Cascade Moun-
tains." *American Journal of Botany*, vol. 18, p. 641.
- 1936 "FOREST TYPE MAP, STATE OF WASHINGTON"
in color 1:253,440

LEGEND

- | | |
|--|--|
| <p>Non-forest land types</p> <ol style="list-style-type: none"> 1. Non-forest land 2. Agricultural zone <p>Noncommercial forest types</p> <ol style="list-style-type: none"> 3. Sub-alpine and certain noncommercial forests 4. Lodgepole pine 5. Juniper <p>Timberland types</p> <ol style="list-style-type: none"> 6. Douglas fir (4 age classes) 7. Spruce-hemlock 8. Spruce-hemlock-[western red and/or Port Orford] cedar 9. [Port Orford] cedar-redwood 10. Ponderosa pine (4 age classes) | <ol style="list-style-type: none"> 11. Pine mixtures (ponderosa pine, Douglas fir, western larch, white fir, white pine etc.) 12. Balsam fir, mountain hemlock, and upper slope types 13. Western white pine (2 age classes) 14. Balsam fir, mountain hemlock, and upper slope types 15. Hardwoods: alder, ash, maple 16. Hardwoods: oak madrone, tan oak 17. Cut-overs 18. Deforested burns |
|--|--|

UNITED STATES. *Forest Service*

1936 Pacific Northwest Forest and Range Experiment Station, Portland. 4 sheets.

1939 "COMMUNITIES OF A LARGE PROTECTED BAY OF THE NORTHEAST PACIFIC" black and white 1:480,000

LEGEND

BIOMES

- | | | | | | | | | | |
|---|--|---|----------------|---|---------------------------------|---|---------------|---|-------------------|
| <ol style="list-style-type: none"> 1. Cucumaria-Scalibregma 2. Clymenella-Yoldia 3. S-Pugettia 4. S-Pteraster 5. Macoma-Paphia 6. Zostera Faciation 7. Dendraster Faciation 8. B.-M. californianus 9. B.-M. edulis 10. Salt marsh 11. Brackish Marsh | <table border="0"> <tr> <td style="font-size: 2em;">}</td> <td>Pandora-Yoldia</td> </tr> <tr> <td style="font-size: 2em;">}</td> <td>Strongylocentrotus-Argobuccinum</td> </tr> <tr> <td style="font-size: 2em;">}</td> <td>Macoma-Paphia</td> </tr> <tr> <td style="font-size: 2em;">}</td> <td>Balanus-Littorina</td> </tr> </table> | } | Pandora-Yoldia | } | Strongylocentrotus-Argobuccinum | } | Macoma-Paphia | } | Balanus-Littorina |
| } | Pandora-Yoldia | | | | | | | | |
| } | Strongylocentrotus-Argobuccinum | | | | | | | | |
| } | Macoma-Paphia | | | | | | | | |
| } | Balanus-Littorina | | | | | | | | |

Provisional map of animal communities of the water washing the San Juan Islands and adjacent main land. (After Shelford 1935.)

CLEMENTS, FREDERIC E. and VICTOR E. SHELFORD

1939 *Bio-Ecology*. New York, John Wiley and Sons, Inc., pp. 346-347.

1948 "GENERALIZED FOREST TYPES, NORTHEAST WASHINGTON" in color [1:1,300,000]

LEGEND

- | | |
|---|--|
| <p>A. Commercial forest zone</p> <ol style="list-style-type: none"> 1. White pine 2. Ponderosa pine 3. Larch | <ol style="list-style-type: none"> 4. Douglas fir 5. Lodgepole pine 6. Grand fir, hemlock, cedar and spruce |
|---|--|

WASHINGTON

B. Noncommercial forest zone
7. Alpine, noncommercial

C. Non forest zone
8. Agricultural and grassland

KEMP, PAUL D. and H. J. PISSOT

1949 *Forest resources of northeast Washington*. Northern Rocky Mountain Forest and Range Exp. Sta., Sta. Paper no. 21, p. 4.

1959 "GENERALIZED FOREST TYPE MAP, OKANOGAN COUNTY, WASHINGTON"
green, black, and white [1:880,000]

LEGEND

1. Douglas fir
2. Ponderosa pine
3. Lodgepole pine
4. Western larch

5. Fir-spruce
6. Hardwoods
7. Noncommercial
8. Nonforest

UNITED STATES. *Forest Service*

1962 In Berger, John M., *Forest Statistics for Okanogan County, Washington*. Pacific Northwest Forest and Range Exp. Sta., Forest Survey Rept. no. 139, facing p. 1.

WEST VIRGINIA

- 1882 "MAP OF WEST VIRGINIA SHOWING THE DISTRIBUTION OF FORESTS WITH SPECIAL REFERENCE TO THE LUMBER INDUSTRY"
in color [1:1,800,000]

LEGEND

1. Region from which valuable timber has been largely removed
2. Region of forests chiefly hardwood
3. Spruce belt (*Picea nigra*)
4. White pine belt (*Pinus strobus*)

SARGENT, CHARLES SPRAGUE

1884 "Report on the forests of North America (exclusive of Mexico)." U. S. Dept. Interior, Census Office, *Tenth Census of the U. S.*, vol. 9, facing p. 512.

- [1941] "LEVEL BOG AREA [POCAHONTAS COUNTY]"
black and white [1:119,000]

LEGEND

1. Shrub and bog forest
2. Glade

DARLINGTON, H. CLAYTON

1943 "Vegetation and substrate of Cranberry Glades, West Virginia." *Botanical Gazette*, vol. 104, p. 375.

- [1941] "APPARENTLY LEVEL BOG AREA WITH LOCATION OF TRANSECT PROFILES"
black and white [1:15,800]

LEGEND

1. Shrub and bog forest
2. Glade

DARLINGTON, H. CLAYTON

1943 "Vegetation and substrate of Cranberry Glades, West Virginia." *Botanical Gazette*, vol. 104, p. 374.

- [1941] "COMMUNITY DISTRIBUTION OVER . . . [LEVEL BOG AREA, POCAHONTAS COUNTY]"
black and white [1:15,100]

LEGEND

1. Bog forest
2. Shrub
4. *Sphagnum*-cranberry-beaked rush

WEST VIRGINIA

3. Sedge-*Sphagnum*

5. Moss-lichen

6. Climax forest

DARLINGTON, H. CLAYTON

1943 "Vegetation and substrate of Cranberry Glades, West Virginia." *Botanical Gazette*, vol. 104, p. 375.

1950 "MAJOR FOREST TYPES OF WEST VIRGINIA"

black and white

1:3,000,000

LEGEND

1. Northern hardwoods

5. Chestnut oak

2. Cove hardwoods

6. Aspen-pin cherry

3. Red oak

7. Spruce

4. Hard pine-oak

WILSON, LEE

1951 In Bailey, R. Wayne et al., *Wild Turkey Management in West Virginia*. Charleston, Conservation Commission of W. Va., Div. Game Management, Bull. no. 2, p. 4.

[1950] "OCCUPIED WILD TURKEY RANGE IN RELATION TO MAJOR FOREST TYPES IN WEST VIRGINIA"

black and white

[1:2,300,000]

LEGEND

1. Northern hardwoods

5. Chestnut oak

2. Cove hardwoods

6. Aspen-pin cherry

3. Red oak

7. Spruce

4. Hard pine-oak

UNITED STATES. *Forest Service. Northeastern Forest Experiment Station*

1951 In Bailey, R. Wayne, Hans G. Uhlig, and George Breiding, *Wild turkey management in West Virginia*. Charleston, Conserv. Comm. of West Virginia, Div. Game Management, Bull. no. 2, p. 4.

[1952] "SITE CLASSIFICATION OF WATOGA STATE PARK [POCAHONTAS COUNTY, WEST VIRGINIA]"

black and white

[1:63,400]

LEGEND

1. Dry (includes scarlet oak, chestnut oak, and hard pine-oak forest types)

2. Medium (includes white oak, oak-hickory, white pine, and white pine-hardwood forest types)

3. Moist (includes northern hardwoods, hemlock, cove hardwoods, and red oak forest types)

WILSON, H. LEE

1952 *Cover mapping and habitat analysis, Watoga State Park*. Charleston, Conservation Commission of West Virginia, Quarterly Progress Report, Wildlife Research, Federal Aid in Wildlife Restoration Act, Project no. 21-R-5, p. 61.

- [1953] "WEST VIRGINIA FOREST TYPES"
black and white [1:4,600,000]

LEGEND

- | | |
|----------------------|----------------------------|
| 1. Oak-hickory | 3. Spruce-fir |
| 2. Maple-birch-beech | 4. Loblolly-shortleaf pine |

ANON.

1953 *West Virginia forest facts*, 1953 edition. Washington, Amer. Forest Products Industries, Inc., p. 3.

- [1955] "SKETCH MAP OF VALLEY 3, NORTHEAST OF REDDISH KNOB"
black and white [1:11,800]

LEGEND

- | | |
|----------------------------------|--------------------|
| 1. Yellow pine forest type | 3. Oak forest type |
| 2. Northern hardwood forest type | |

HACK, JOHN T. and JOHN C. GOODLETT

1960 *Geomorphology and forest ecology of a mountain region in the central Appalachians*. U. S. Geol. Surv., Prof. Paper no. 347, p. 20, in pocket.

WISCONSIN

[presettlement] "THE DISTRIBUTION OF PRAIRIES IN THE WESTERN UPLAND OF WISCONSIN"
 black and white [1:2,400,000]

LEGEND

1. Prairies

MARTIN, LAWRENCE

1916 *The physical geography of Wisconsin*. Wisconsin Geol. and Hist. Surv., Bull. no. 36, Educ. Ser. no. 4, p. 126.

[presettlement] "THE ORIGINAL AREAS OF PRAIRIE IN SOUTHEASTERN WISCONSIN"
 black and white [1:1,500,000]

LEGEND

1. Prairie

MARTIN, LAWRENCE

1916 *The physical geography of Wisconsin*. Wisconsin Geol. and Nat. Hist. Surv., Bull. no. 36, Educ. Ser. no. 4, p. 277.

[1800] "PROBABLE DEER DENSITIES PRIOR TO 1800 [NATURAL VEGETATION REGIONS BASED ON DETERMINATIONS OF THE WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY (WISCONSIN STATE PLANNING BOARD, 1945)]
 black and white [1:4,300,000]

LEGEND

1. Hardwood-evergreen forest
2. Hardwood-evergreen forest interspersed with swamps and marshes
3. Oak-maple forest frequently interspersed with prairie openings

DAHLBERG, BURTON L. and RALPH C. GUETTINGER

1956 *The white-tailed deer in Wisconsin*. Madison, Wisconsin Conserv. Dept., Game Management Div., Tech. Wildlife Bull. no. 14, p. 15.

[1835] "[THE VEGETATION OF DANE COUNTY, WISCONSIN]"
 black and white [1:73,900]

LEGEND

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Maple-basswood 2. Oak woods 3. Oak openings 4. High prairie | <ol style="list-style-type: none"> 5. Low prairie 6. Open marsh 7. Swamp hardwoods 8. Swamp conifers |
|---|--|

ELLARSON, ROBERT SCOTT

1949 "The vegetation of Dane County, Wisconsin, in 1835." *Trans. Wisconsin Acad. Sci., Arts, Lett.*, vol. 39, preceding p. 21.

1835-1836 "MAP OF MILWAUKEE COUNTY SHOWING THE ORIGINAL VEGETATION AS TAKEN FROM LAND SURVEY RECORDS OF 1835-36"
black and white [1:287,000]

LEGEND

- | | |
|-------------------|--------------------|
| 1. Maple basswood | 5. Open marsh |
| 2. Oak woods | 6. Swamp hardwoods |
| 3. Oak opening | 7. Swamp conifers |
| 4. High prairie | 8. Cedar fringe |

WHITFORD, PHILIP B. and PETER J. SALAMUN

1954 "An upland forest survey of the Milwaukee Area." *Ecology*, vol. 35, p. 534.

1836 "DANE COUNTY, WISCONSIN, PRAIRIE OPENINGS AS SHOWN ON AN 1836 SURVEYOR'S MAP"
black and white [1:100,000]

LEGEND

1. [Prairie openings]

GOULD, FRANK W.

1941 "Plant indicators of original Wisconsin prairies." *Ecology*, vol. 22, p. 428. (Same map also printed on p. 429.)

[1840] "[ORIGINAL VEGETATION OF WISCONSIN—IN 11 MAPS]"
black and white [1:9,300,000]

LEGEND

1. Original mesic forest (p. 519)
2. Original oak forests. The dotted areas were the closely related oak savannas (p. 522)
3. Original lowland hardwood forest (p. 528)
4. Original northern mesic forest (p. 533)
5. Original pine forest. The dotted areas were pine barrens (p. 536)
6. Original conifer swamps (p. 541)
7. Original boreal forest (p. 548)
8. Original prairies (p. 552)
9. Original oak savanna (p. 566)
10. Original pine barrens (p. 567)
11. Original sedge meadows (p. 578)

CURTIS, JOHN T.

1959 *The vegetation of Wisconsin, an ordination of plant communities*. Madison, Univ. Wisconsin Press.

ca. 1840 "MAJOR PLANT COMMUNITIES OF WISCONSIN"
in color [1:3,800,000]

LEGEND

- | | |
|----------------------------|-----------------------------|
| 1. Boreal forest | 4. Southern-hardwood forest |
| 2. Conifer-hardwood forest | 5. Oak savanna |
| 3. Pine savanna | 6. Prairie |

CURTIS, JOHN T.

1959 *The vegetation of Wisconsin, an ordination of plant communities*. Madison, Univ. Wisconsin Press, on endpapers.

ca. 1840 "VEGETATION OF WISCONSIN"

black and white

[1:2,500,000]

LEGEND

- | | |
|--------------------------|---------------------------------|
| A. Boreal conifer forest | 3. Pine subclimax |
| 1. Spruce-fir postclimax | 4. Oak subclimax |
| B. Deciduous hardwoods | C. Grassland |
| 2. Maple climax | 5. Tall grass prairie preclimax |

CURTIS, JOHN T.

1950 *Plant ecology work book*. Minneapolis, Minnesota, Burgess Publishing Co., p. 31. Reprinted, 1951 [1:4,900,000], in Fassett, Norman C., *Grasses of Wisconsin*. Madison, Wisconsin, University of Wisconsin Press, p. 98; reprinted, 1956 [1:3,100,000], in Larsen, James A., *Wisconsin's renewable resources, a report on research at the University of Wisconsin into the renewable resources of field, forest, lake and stream*. Madison, Wisconsin, University of Wisconsin, unnumbered publication, p. [15].

1858-1951 "FOREST COVER OF THE CIVIL TOWNSHIP OF PLUM LAKE, VILAS COUNTY IN 1858, 1929, AND 1951 [3 MAPS]"

black and white

[1:46,100]

LEGEND

1. Mesic hardwood forest of maple, birch, and hemlock
2. Pine forest of white, red, or jack pine
3. Conifer swamp of tamarack, black spruce, or white cedar
4. Cutover and burned-over land supporting trembling aspen, white birch, or pin cherry

CURTIS, JOHN T.

1959 *The vegetation of Wisconsin, an ordination of plant communities*. Madison, Univ. Wisconsin Press, p. 470.

1876 "MAP OF NATIVE VEGETATION OF EASTERN WISCONSIN"

in color

1:760,320

LEGEND

- | | |
|--|------------------------|
| 1. Grass and sedge group | 4. Prairie group |
| 2. Marsh conifer group (tamarack, arbor vitae, spruce) | 5. Oak group |
| 3. Heath group (cranberry) | 6. Oak and maple group |
| | 7. Maple group |

- | | |
|-------------------------------|-------------------------|
| 8. Maple and birch group | 10. Comprehensive group |
| 9. Hardwood and conifer group | 11. Pine group |

CHAMBERLAIN, T. C.

1883 *In: Atlas of the Geological Survey of Wisconsin*, Plate 3. Madison, Wisconsin Geological Survey.

1876-1877 "MAP OF VEGETATION OF LOWER ST. CROIX DISTRICT"

in color

[1:860,000]

LEGEND

- | | |
|-----------------------------|------------------------|
| 1. Prairie & terrace group | 4. Pine group |
| 2. Oak & poplar group | 5. Grass & sedge group |
| 3. Hardwood & conifer group | 6. Tamarac group |

WOOSTER, L. C.

1882 "Geology of the lower St. Croix District." *In* Chamberlin, T. C., *Geology of Wisconsin, survey of 1873-1879*. Madison, Commissioners of Public Printing, vol. 4, facing p. 146.

[1877] "OUTLINE OF THE LEAD REGION [OF IOWA, LAFAYETTE, AND GRANT COUNTIES] EXHIBITING THE DRAINAGE AND THE DISTRIBUTION OF PRAIRIE AND FOREST"

black and white

[1:760,000]

LEGEND

- | | |
|------------|-------------|
| 1. Prairie | 2. [Forest] |
|------------|-------------|

STRONG, MOSES

1877 "Geology and topography of the lead region." *In: Geology of Wisconsin, Survey of 1873-1877*. Madison, Commissioner of Public Printing, vol. 2, facing p. 652.

1877 "OUTLINE MAP SHOWING THE GENERAL DISTRIBUTION OF SOIL AND TIMBER IN DOUGLAS AND BAYFIELD COUNTIES"

black and white

[1:640,000]

LEGEND

- | | |
|--|---------------------------|
| 1. Tamarack, poplar, birch, cedar,
and balsam | 4. Whitecedar, tamarack |
| 2. White pine | 5. Poplar and yellow pine |
| 3. Hemlock | 6. Maple, oak, birch |

SWEET, E. T.

1880 "Geology of the western Lake Superior district." *In: Geology of Wisconsin, Survey of 1873-1879*. Madison, Wisconsin, Commissioners of Public Printing, vol. 3, facing p. 325.

1881 "MAP OF WISCONSIN SHOWING THE DISTRIBUTION OF FORESTS, WITH SPECIAL REFERENCE TO THE LUMBER INDUSTRY"

in color

[1:2,500,000]

LEGEND

- | | |
|--|----------------------------|
| 1. Hard wood | 4. Cut pine |
| 2. Standing pine | 5. Cut pine, and hard wood |
| 3. Pine, and hard wood of commercial value | 6. Barrens |

SARGENT, CHARLES SPRAGUE

1884 "Report on the forests of North America (exclusive of Mexico)." U. S. Dept. Interior, Census Office, *Tenth Census of the U. S.*, vol. 9, facing p. 554.

- [1882] "FOREST MAP OF WISCONSIN"
black and white [1:4,600,000]

LEGEND

1. Conifers, with some mixed hardwoods
2. Dwarf oak and pine, including pine barrens
3. Oak group, including swamps and prairies
4. Maple group

ANON.

1916 In Martin, Lawrence, *The physical geography of Wisconsin*. Wisconsin Geol. and Nat. Hist. Surv., Bull. no. 36, Educ. Ser. no. 4, p. 17.

- 1882 "GENERAL MAP OF THE NATIVE VEGETATION OF WISCONSIN"
in color [1:960,000]

LEGEND

- | | |
|--|---|
| 1. Prairie (grasses) | and balsam) |
| 2. Meadow (sedges) | 6. Pine group |
| 3. Oak group | 7. Dwarf oak and pine (including the so-called "Barrens") |
| 4. Maple group | 8. Swamp conifer group (tamarack, white cedar, spruce) |
| 5. Mixed hemlock and evergreen (the latter mainly pine, hemlock, | |

CHAMBERLAIN, T. C.

1882 *Geology of Wisconsin, survey of 1873-1879*. Madison, Commissioners of Public Printing, pl. no. IIA in atlas. Reprinted, 1913 1:4,500,000, in Dopp, Mary, "Geographical influences in the development of Wisconsin." *Bull. Amer. Geogr. Soc.*, vol. 45, p. 596; 1916 [1:4,600,000], greatly simplified, in Martin, Lawrence, *The physical geography of Wisconsin*. Wisconsin Geol. and Nat. Hist. Surv., Bull. no. 36, Educ. Ser. no. 4, p. 17; 1932 [1:4,600,000], in Martin, Lawrence, *The physical geography of Wisconsin*. Second edition. *Ibid.*, Bull. no. 36, Educ. Ser. no. 4, p. 16.

- 1897 "FOREST CONDITIONS OF NORTHERN WISCONSIN"
in color [1:2,200,000]

LEGEND

1. Pinery, on sandy land, without merchantable hardwoods except in small scattered areas

2. Pinery with considerable merchantable timber
3. Pinery nearly or entirely cut over
4. Pinery largely stocked with considerable jack pine
5. Mixed forest of hardwoods, pine, and, in the part east and north of red line, with hemlock. With less than 3,000 feet of hardwood and hemlock per acre of stocked area
6. Mixed forest with 3,000 to 5,000 feet of hardwood and hemlock per acre of stocked area
7. Mixed forest with over 5,000 feet of hardwood and hemlock per acre of stocked area
8. Mixed forest with considerable standing merchantable pine
9. Mixed forest from which pine has largely been cut
10. Mixed forest from which hardwood and hemlock have largely been cut or damaged by fires
11. Mixed forest, where pine is predominant, the forest resembling pinery
12. Mixed forest where pine formerly predominated but is now cut, and the appearance is that of a pine slashing
13. Openings with jack pine woods
14. Openings with scrub oak woods

Heavy line on map indicates southern limit of commercial importance of hemlock. To the south and west of line, birch is replaced by oak

ROTH, FILBERT

1898 *Forestry conditions and interests of Wisconsin*. U. S. Dept. Agr., Div. Forestry, Bull. no. 16, facing p. 28. Reprinted, 1898 [1:1,100,000], in his: *On the forestry conditions of northern Wisconsin*. Wisconsin Geol. and Nat. Hist. Surv., Bull. no. 1 (Econ. Ser. no. 1), facing page 78; 1899 in Spalding, V. M., and B. E. Fernow, *The white pine*. U. S. Dept. Agr., Div. Forestry, Bull. no. 22, facing p. 14.

[1906] "EAST TWIN ISLAND [LAKE SPOONER, WASHBURN COUNTY, WISCONSIN]"
black and white [1:780]

LEGEND

- | | |
|-------------------------------|----------------|
| 1. <i>Salix</i> | 6. Marsh |
| 2. <i>Scirpus fluviatilis</i> | 7. Back strand |
| 3. <i>Typha</i> | 8. Strand |
| 4. <i>Scirpus lacustris</i> | 9. Open space |
| 5. <i>Pontederia</i> | |

MARSHALL, RUTH

1910 "The vegetation of Twin Island." *Trans. Wisconsin Acad. Sci., Arts, and Lett.*, vol. 16, following p. 774.

[1907] "THE SOUTHWEST PORTION OF RIDGEWAY BOG [ONEIDA COUNTY]"
black and white [1:4,200]

LEGEND

- | | |
|----------------------------------|--|
| 1. Area of aquatic association | 4. Area of tamarack-spruce association |
| 2. Area of sedge association | |
| 3. Area of cassandra association | |

5. Area of cedar-balsam-hemlock association

6. Area of hillside association

JACKSON, HARTLEY H. T.

1914 "The land vertebrates of Ridgeway Bog, Wisconsin: their ecological succession and source of ingression." *Bull. Wisconsin Nat. Hist. Soc.*, vol. 12, p. 16.

1932-1943 "[VEGETATION OF THE BRULE RIVER BASIN, DOUGLAS COUNTY, WISCONSIN]"

in color

[1:230,000]

LEGEND

- 1. Maple-yellow birch
- 2. Maple coppice
- 3. Pine-hardwoods
- 4. Aspen
- 5. Pine forest
- 6. Pine barrens
- 7. Spruce-fir forest

- 8. Small fir and aspen
- 9. Lowland hardwoods
- 10. Willow, alder, etc.
- 11. Bog conifers
- 12. Cleared
- 13. Marsh

FASSETT, NORMAN C.

1944 "Vegetation of the Brule Basin, past and present." *Trans. Wisconsin Acad. Sci., Arts and Lett.*, vol. 36, following p. 48.

[1933] "VEGETATION OF THE HOPE BOG AREA [JEFFERSON COUNTY, WISCONSIN]"

black and white

[1:25,000]

LEGEND

- 1. Cultivated
- 2. Pastured
- 3. Wooded
- 4. Tamaracks

- 5. Open water
- 6. Swamp
- 7. Bog

RHODES, JOSEPH W.

1933 "An ecological comparison of two Wisconsin peat bogs." *Bull. Pub. Mus. of the city of Milwaukee*, vol. 7, p. 312.

[1933] "VEGETATION OF THE REESEVILLE BOG AREA [DODGE COUNTY, WISCONSIN]"

black and white

[1:25,000]

LEGEND

- 1. Cultivated
- 2. Pastured
- 3. Tamaracks

- 4. Wasteland
- 5. Swamp
- 6. Bog

RHODES, JOSEPH W.

1933 "An ecological comparison of two Wisconsin peat bogs." *Bull. Public Mus. of the city of Milwaukee*, vol. 7, p. 312.

1938 "BRULE RIVER WATERSHED VEGETATION—1938"

black and white

[1:113,000]

LEGEND

- | | |
|---|----------------------------|
| 1. Scattered pine | 9. Aspen association |
| 2. Popple with alder | 10. Pine |
| 3. Lowland hardwoods | 11. Grass |
| 4. Open lowland hardwoods | 12. Maple, basswood, birch |
| 5. Hazel brush | 13. Oak scrub |
| 6. Sedge, grass meadow | 14. Alder |
| 7. Cultivated or pasture | 15. Leatherleaf bog |
| 8. Conifer bog (spruce, tamarack,
cedar, balsam) | 16. Lake |

THOMSON, JOHN W., JR.

1947 "An analysis of the vegetative cover of the Brule River (Wisconsin) watershed. Brule River Survey Report No. 8." *Trans. Wisconsin Acad. Sci., Arts, Lett.*, vol. 37 [1945], facing p. 308.

1938 "FAVILLE GROVE WILDLIFE AREA, JEFFERSON COUNTY, WISCONSIN"
black and white [1:41,000]

LEGEND

- | | |
|-------------------|------------------------|
| 1. Prairie | 5. Brush & grass swale |
| 2. Oak opening | a. Ragweed patch |
| 3. Tamarack | 6. Cultivated |
| 4. Mixed hardwood | |

HAWKINS, ARTHUR S.

1940 "Wildlife history of Faville Grove, Wisconsin." *Trans. Wisconsin Acad. Sci., Arts, Lett.*, vol. 32, p. 33.

[1949] "BROAD SOIL-VEGETATION UNITS OF WISCONSIN AS INFERRED FROM DATA
OF SOIL SURVEYS AND OCCURRENCE OF PRESENT STANDS"
black and white [1:4,300,000]

LEGEND

1. Lacustrine clay podzols and raw humus rendzinas—coniferous type: White pine, red pine, white spruce, balsam fir, hemlock, white cedar; incidental hardwoods
2. Morainic and fluvio-glacial loams, strongly or moderately podzolized—hemlock-hardwood type: Hemlock, balsam fir, white spruce, hard maple, basswood, yellow birch, white elm
3. Morainic, fluvio-glacial, and residual loams, moderately or mildly podzolized—white pine-hardwood type: White pine, hard maple, basswood, white elm and white ash; some beech in eastern Wisconsin
4. Glacial and fluvial sands or sandy loams, melanized, mildly podzolized, or strongly podzolized—pine type and scrub oak type: White pine, red pine, jack pine, jack oak, black oak, bur oak
5. Glacial, loessial, and residual grood loams—oak-hickory type: White oak, red oak, black oak, bur oak, shagbark hickory, black walnut, white ash, white elm, red cedar
6. Moss peat, wood peat, sedge peat and muck—swamp forest and marsh types: Black spruce, tamarack, white cedar, balsam fir, white spruce, black ash, slippery elm, swamp white oak, red and silver maple, river birch, cottonwood, tag alder, willows, and sedges
7. Prairie soils—prairie type: Bluestem, Indian grass, hairy grama

WILDE, S. A., F. G. WILSON and D. P. WHITE

1949 *Soils of Wisconsin in relation to silviculture*. Madison, Wisconsin, Wisconsin Conserv. Dept., Publ. no. 525-49, p. 10.

[1949] "MAJOR FOREST REGIONS OF WISCONSIN"
black and white [1:4,300,000]

LEGEND

- | | |
|--|-------------------------|
| 1. Northern hardwood and coniferous forest | 2. Relic prairie forest |
| | 3. Prairie forest |

WILDE, S. A., F. G. WILSON and D. P. WHITE

1949 *Soils of Wisconsin in relation to silviculture*. Madison, Wisconsin, Wisconsin Conserv. Dept. Publ. no. 525-49, p. 107.

[1951] "MAP OF WISCONSIN"
black and white [1:7,700,000]

LEGEND

1. Approximate extent of the sugar maple-hemlock-yellow birch association

STEARNS, FOREST

1951 "The composition of the sugar maple-hemlock-yellow birch association in northern Wisconsin." *Ecology*, vol. 32, p. 246.

1951 "MAP OF MILWAUKEE COUNTY AS OF 1951, SHOWING . . . THE EXISTING NATIVE VEGETATION AS CHECKED DURING THE PRESENT STUDY"
black and white [1:288,000]

LEGEND

- | | |
|-------------------|--------------------|
| 1. Maple-basswood | 5. Open marsh |
| 2. Oak woods | 6. Swamp hardwoods |
| 3. Oak opening | 7. Swamp conifers |
| 4. High prairie | 8. Cedar fringe |

WHITFORD, PHILIP B. and PETER J. SALAMUN

1954 "An upland forest survey of the Milwaukee area." *Ecology*, vol. 35, p. 536

1951-1957 "GENERALIZED FOREST COVER TYPE MAP . . . [BY COUNTIES]"
black and white [1:253,000, except as noted]

LEGEND

- | | |
|----------|-----------------------|
| 1. Oak | 4. Swamp conifers |
| 2. Pine | 5. Lowland hardwoods |
| 3. Aspen | 6. Northern hardwoods |

Overprinted symbols also indicate percent of area presently forested

COOPERATIVE FORESTRY DIVISION [OF WISCONSIN]

1954 *Forest resources of Adams County*. (Map drawn 1951.) Madison, Wisconsin Conserv. Dept., Wisconsin Forest Inventory, Publ. no. 4, in pocket.

Other maps in series:

- Ashland County (including Apostle Islands), 1955: Publ. no. 24 (1956)
 Bayfield County, 1954: Publ. no. 20 (1956)
 Burnett County, 1952: Publ. no. 17 (1955)
 Chippewa County, 1953: Publ. no. 13 (1955)
 Clark County, 1953: Publ. no. 15 (1955)
 Douglas County, 1953 [1:245,000]: Publ. no. 19 (1956)
 Eau Claire County, 1953: Publ. no. 14 (1955)
 Florence County, 1956: Publ. no. 28 (1957)
 Forest County, 1951: Publ. no. 12 (1955)
 Iron County, 1955: Publ. no. 25 (1956)
 Jackson County, 1952 [1:289,000]: Publ. no. 6 (1955)
 Juneau County, 1952 [1:282,000]: Publ. no. 8 (1955)
 Langlade County, 1956: Publ. no. 27 (1957)
 Lincoln County [1956]: Publ. no. 31 (1957)
 Marathon County, 1954 [1:257,000]: Publ. no. 16 (1955)
 Marinette County, 1956: Publ. no. 29 (1957)
 Marquette County, 1951 [1:211,000]: Publ. no. 5 (1954)
 Monroe County, 1952 [1:259,000]: Publ. no. 9 (1955)
 Oconto County, 1956: Publ. no. 30 (1957)
 Oneida County, 1951: Publ. no. 11 (1955)
 Portage County, 1951: Publ. no. 3 (1954)
 Price County, 1957 [1:331,000]: Publ. no. 32 (1958)
 Rusk County, 1953: Publ. no. 22 (1956)
 Sawyer County, 1954: Publ. no. 21 (1956)
 Shawano County, 1956: Publ. no. 26 (1957)
 Taylor County, 1953: Publ. no. 23 (1956)
 Vilas County, 1951 [1:338,000]: Publ. no. 10 (1955)
 Washburn County, 1954: Publ. no. 18 (1956)
 Waupaca County, 1951: Publ. no. 2 (1954)
 Waushara County, 1951: Publ. no. 1 (1954)
 Wood County, 1952 [1:249,000]: Publ. no. 7 (1955)

[1952] "MAP OF 40 ACRE TRACT [IN SECTION 23, T. 17 N., R. 6 E., ADAMS COUNTY], INCLUDING PINE PLANTATION"

black and white

[1:3600]

LEGEND

- | | |
|--------------------|-----------------|
| 1. Native pine | 4. Oak |
| 2. Plantation | 5. Sedge meadow |
| 3. Trembling aspen | |

BROWN, ROBERT T. and EUGENE P. YOUNG

1955 "Insect attacks on native and plantation pines in central Wisconsin." *Ecology*, vol. 36, p. 523.

[1954] "CHEQUAMEGON NATIONAL FOREST, T. 43 N., R. 2 W., 4TH P. M., ASHLAND COUNTY, WISCONSIN"

brown outlines

[1:32,100]

LEGEND

- | | |
|--------------------------|-------------------|
| 1. Aspen-paper birch | 14. Sand dunes |
| 2. Offsite aspen | 15. Crop land |
| 3. Mixed conifer swamp | 16. Pasture land |
| 4. Cottonwood | 17. Upland brush |
| 5. Hemlock | 18. Lowland brush |
| 6. Oak | 19. Muskeg |
| 7. Scrub oak | 20. White cedar |
| 8. Northern hardwoods | 21. Jack pine |
| 9. Swamp hardwoods | 22. Spruce-fir |
| 10. Plantation | 23. Black spruce |
| 11. Non-productive swamp | 24. Red pine |
| 12. Tamarack | 25. White pine |
| 13. Grassland | |

Also indicates size classes and density classes. These as well as the cover types (given above) are expressed in letter and number symbols

UNITED STATES. *Forest Service*

1956 Milwaukee, Wisconsin, U. S. Dept. Agr., Forest Serv., Office of North Central Region. (Timber Survey of Ashland County, Wisconsin, 1951.)

Similar map published for:

Nicolet National Forest, T. 40 N., R. 12 E., 4TH P. M., Forest County, Wisconsin.

1956 "MAJOR FOREST TYPES—WISCONSIN"

in color

[1:3,230,000]

LEGEND

- | | |
|--|--|
| 1. White-red-jack pine | 5. Northern hardwood (maple-beech-birch) |
| 2. Swamp conifers (spruce-fir) | 6. Aspen-birch |
| 3. Oak (oak-hickory) | 7. Nonforest (less than 10 percent forested) |
| 4. Lowland hardwood (elm-ash-cottonwood) | |

STONE, ROBERT N. and HARRY W. THORNE

1961 *Wisconsin's forest resources*. Lake States Forest Exp. Sta., Sta. Paper no. 90, p. 2.

[1958] "WYALUSING SCIENTIFIC AREA IN WYALUSING STATE PARK, GRANT COUNTY: PRESENT VEGETATION OF THE AREA"

black and white

[incalculable]

LEGEND

1. Cedar glade
2. Southern mesic forest of maple and basswood
3. Lowland hardwood forest of silver maple, American elm, and green ash
4. Dry forest of chinquapin oak

5. Dry-mesic forest of white oak and red oak
6. Dry-mesic forest of red oak and basswood
7. Mixed forest of red oak, black walnut, sugar maple, and honey locust
8. Dry forest of black oak and shagbark hickory
9. Dry-mesic forest of nearly pure red oak

CURTIS, JOHN T.

1959 *The vegetation of Wisconsin, an ordination of plant communities*. Madison, Univ. Wisconsin Press, p. 89.

[1959] "OBSERVATORY WOODS, DANE COUNTY, WISCONSIN"

black and white

[1:6,900]

LEGEND

- | | |
|------------|------------------------|
| 1. Prairie | 4. Ironwood |
| 2. Bur oak | 5. White oak-black oak |
| 3. Red oak | |

BURGESS, ROBERT L.

1959 "Observatory woods." *Univ. Wisconsin, Arboretum News*, vol. 8, no. 2, p. [3].

WYOMING

[1933] "JACKSON HOLE, NATURAL COVER"
black and white [1:447,000]

LEGEND

- | | |
|--|-------------------------------------|
| 1. Wet meadows | 5. Sagebrush and mountain grassland |
| 2. Willow, alder, cottonwood | 6. Alpine meadows and barren areas |
| 3. Aspen, and scrub conifer in mountains | |
| 4. Conifer | |

JAMES, PRESTON E.

1936 "Regional planning in the Jackson Hole Country." *Geographical Review*, vol. 26, p. 440.

[1933] "MAJOR PLANT COMMUNITIES—HEADWATER AREA—LITTLE LARAMIE RIVER—WYOMING"
black and white [1:70,000]

LEGEND

- | | |
|----------------------------|-------------------------------------|
| 1. Grasslands | 6. (Brush) willow bog |
| 2. Lodgepole | 7. Aspen |
| 3. Willow-poplar | 8. Sagebrush |
| 4. Engelmann spruce | 9. Burn tending to become lodgepole |
| 5. (Chaparral) mixed scrub | |

HANNA, LEO A.

1934 *The major plant communities of the headwater area of the Little Laramie River, Wyoming*. Univ. Wyoming, Publ. in Sci., Botany, vol. 1, p. 266.

1951 "GLENDO SUB-AREA OF THE NORTH PLATTE RIVER BASIN, WYOMING, VEGETATION TYPE MAP"
in color 1:125,000

LEGEND

- | | |
|-------------------|----------------|
| 1. Grass | 7. Barren |
| 2. Meadow | 8. Juniper |
| 3. Sagebrush | 9. Aspen |
| 4. Mountain shrub | 10. Saltbush |
| 5. Conifer | 11. Greasewood |
| 6. Waste | |

UNITED STATES. *Bureau of Land Management*

1951 *Land Planning and Classification Report*. Billings, Mont. (Missouri River Basin Investigations.)

[1953] "THREE MOUNTAIN AREAS IN SOUTHWESTERN WYOMING"
green and white

[1:1,600,000]

LEGEND

- | | |
|------------------------|---------------------------------------|
| 1. Cultivated land | 4. Mountain brush and woodland |
| 2. Waste land | 5. Subalpine meadows and barren peaks |
| 3. Sagebrush and grass | |

MORRIS, MAX E. and WILLIAM C. ROBISON

1955 *Three mountain areas in southwestern Wyoming*. Natick, Massachusetts, U. S. Army, Headquarters Quartermaster Res. & Engineering Command, Res. Study Rept. no. RER-6.

MEXICO

[1921] "MEXICO: VEGETATION, PRELIMINARY MAP"

black and white

1:17,500,000

LEGEND

- | | |
|--|---|
| 1. Desert including alkaline wastes | 5. Deciduous trees (chiefly oak,
also ash, alder & willow) |
| 2. Scrub (chiefly mesquite, yucca,
agave, cactus) | 6. Jungle |
| 3. Short grass | 7. Tropical rain forest |
| 4. Pine forest | |

SANDERS, E. M.

1921 "The natural regions of Mexico." *Geographical Review*, vol. 11, p. 218. Reprinted, 1926 in Nelson, E. W., and E. A. Goldman, "Mexico." In Shelford, Victor E. (ed.), *Naturalist's guide to the Americas*. Baltimore, Williams & Wilkins Co., facing p. 577.

1921 "CARTA DE LAS REGIONES BOTÁNICO-GEOGRÁFICAS DEL ESTADO DE OAXACA"

black and white

1:1,000,000

LEGEND

- | | |
|---|---|
| A. Región caliente de 0 a 1200 mts. | 4. Subregión de los calles
centrales |
| 1. Subregión del litoral | 5. Subregión mixteco-cuicateca |
| 2. Subregión de la costa y
Cañada de Cuicatlán | C. Región fría de 2000 a 3400
[mts.] |
| 3. Subregión del bosque tropical | 6. Subregión de las serranías
elevadas |
| B. Región templada de 1200 a 2000
[mts.] | 7. Subregión de las altas cimas |

CONZATTI, C.

1929 "Las regiones botánico-geográficas del Estado de Oaxaca." In Duggar, B. M. (ed.), *Proceedings of The International Congress of Plant Sciences, Ithaca, New York, August 16-23, 1926*. Menasha Wisconsin, George Banta Publishing Co., vol. 1, p. 532.

[1930] "VEGETATION [OF THE CENTRAL PORTION OF THE STATE OF OAXACA]"

[Area: Approximately from latitude 16° 55' to 17° 20' N., and longitude 95° 30' to 97° 00']

black and white

[1:725,000]

LEGEND

- | | |
|--|---------------------------------|
| 1. Predominating pine forest | 3. Mixed forest |
| 2. Tropical rainy mountain forest
(rich in epiphytes) | 4. Area of coherent cultivation |

5. Chaparral, culturally
degenerated
6. Palmares

7. Jungle of the Atlantic "tierra
caliente"

SCHMIEDER, OSCAR

1930 *The settlements of the Tzapotec and Mije Indians, State of Oaxaca, Mexico.* Univ. California, Publ. in Geogr., vol. 4, facing p. 8.

[1931] "VEGETATION OF NORTHWESTERN MEXICO"

black and white

[1:3,700,000]

LEGEND

- | | |
|--|--|
| <p>A. Chihuahuan Desert</p> <ol style="list-style-type: none"> 1. Creosote-yucca-mesquite 2. Mesquite-grassland 3. Succulent desert <p>B. Sierra Madre Occidental</p> <ol style="list-style-type: none"> 4. Oak-agave-juniper 5. Pine forest <p>C. Sonoran Desert</p> | <ol style="list-style-type: none"> 6. Colorado Delta association 7. Creosote-palo verde-cacti 8. Sonoran mesquite-grassland 9. Subtropical mimosae-cacti <p>D. Sinaloa tropical</p> <ol style="list-style-type: none"> 10. Semi-arid scrub 11. Humid scrub |
|--|--|

Also indicates northern limit of mangrove and southwestern limit of creosote bush

BRAND, DONALD D.

1936 *Notes to accompany a vegetation map of northwestern Mexico.* Univ. New Mexico Bull. no. 280 (Biol. Ser., vol. 4, no. 4), facing p. 14.

[1931] "DER STAAT VERA CRUZ"

in color

[1:1,800,000]

LEGEND

- A. Vegetation
1. Tropischer Wald der Fuss-Stufe u. Niederung
 2. Subtrop. Waldhöhenstufe
 3. Nebelwald der gemäss. Höhenstufe
 4. Trockensteppen u. Steppenbuschwald
 5. Feuchtsteppen u. Grassümpfe
 6. Küstendünenstreifen
 7. Wirtschaftslose Matten-, Fels- u. Schneehöhenstufe
- B. Natürliche Landschaften
8. Küstendünenstreifen
 9. Karststeppen-Grasebenen
 10. Karststeppen-Buschwaldebenen u. Hügelländer
 11. Tropische Uferwald-Feuchtsteppenebenen
 12. [Tropische Uferwald]-Grassumpflandschaften
 13. Übergangs- u. Waldhügelländer der trop. Gebirgsvorstufe
 14. Trop. Regenwaldländer der Bergfuss-Stufe
 15. Bergwaldländer der subtrop. Höhenstufe
 16. Bergwaldlandschaften der Nebelwald-Höhenstufe
 17. Trop. Feuchtsteppenebenen mit Sumpfwaldniederungen u. Waldhügeln
 18. Trop. Waldhügelländer mit Wald- u. Grassumpfniederungen
 19. Trop. Hügelländer mit Trockenhochwald

KRIEG, WALTER

1931 *Der Staat Vera Cruz.* Hamburg, Friederichsen, de Gruyter and Co., inserted at back.

[1935] "CLIMATE AND VEGETATION OF NORTHERN LOWER CALIFORNIA"

black and white

[1:1,800,000]

LEGEND

1. Desert shrub, creosote bush, ocotillo, cactus, mesquite
2. Desert "forest," cirio, elephant wood, tree yucca, cardón, other cactus, mesquite
3. Desert shrub, creosote bush, desert agave, yucca, ocotillo, biznaga, mesquite
4. Desert shrub; guayule, yucca, vidrío, siempre vive
5. Mescal chamiso (mescal, guayule, Indian burr, *Eriogonum fasciculatum*, cactus), siempre vive, vidrío
6. Coastal sagebrush (California sage, *Ramona nivea* etc.), vidrío
7. Steppe-desert transition; yucca, biznaga, mesquite; locally juniper, no live oaks
8. Monte (manzanita, palo colorado, *Adenostoma*); occasional yucca and mesquite. Live oaks in cañons
9. Chaparral (*Adenostoma*); grass, live oak groves common
10. Park landscape (live oak); monte
11. Coniferous grove (prickle-cone pine, cypress, with monte underbrush)
12. Coniferous forest (yellow pine predominant, with piñon lower and mixed cedar-pine-fir higher)
13. Carboniferous forest (lodgepole pine predominant; scattered sugar pines)

Items correlated to life zones and Köppen climatic regions

MEIGS, PEVERILL

1935 *The Dominican mission frontier of Lower California*. Univ. Calif., Publ. Geogr., vol. 7, p. 14.

[1935] "VEGETATION OF BAJA CALIFORNIA"

black and white

[1:870,000]

LEGEND

- | | |
|----------------------------------|------------------------------|
| 1. Mountain forest above 1000 m. | 3. Forest of the Cape Region |
| 2. Chaparral and transition | 4. [Not typed] |

SHREVE FORREST

1937 "The vegetation of the Cape Region of Baja California." *Madroneño*, vol. 4, p. 109.

[1936] "CLIMAX FORMATIONS (DIAGRAMMATIC) [OF NORTHERN CHIHUAHUA]"

black and white

[1:1,130,000]

LEGEND

- | | |
|---|------------------------------|
| 1. Montane forest | 6. <i>Bouteloua gracilis</i> |
| 2. <i>Quercus grisea</i> woodland | 7. Desert plains |
| 3. <i>Quercus santaclarensis</i> woodland | 8. Desert shrub |
| 4. Mixed-oak woodland | 9. Limestone sierra |
| 5. Thorn forest | |

LESUEUR, HARDE

1945 *The ecology of the vegetation of Chihuahua, Mexico, north of parallel twenty-eight*. Univ. Texas Publ., no. 4521, facing p. 40.

[1937] "[FOREST ZONES OF MEXICO]"

black and white

1:30,640,000

LEGEND

- | | |
|--|--|
| 1. Mangrove/palms | 3. Oak/copal (Elaphrium/piñon
pine/senna/alder/arbutus) |
| 2. Mahogany/mountain mahogany
/ceiba/chicle/cedar (<i>Cedrela</i>)
and many other tropical species | 4. Agave/cactus/mesquite |
| | 5. Pine/white cedar/cypress/fir |

GARCIA MARTINEZ, JOSÉ

1941 *In* Meyer, H. Arthur, "Forestry in Mexico." *Chronica Bot.*, vol. 6, p. 397; 1945 [1:30,640,000], *in* Meyer, H. Arthur, "Forestry in Mexico." *In* Verdoorn, Frans (ed.), *Plants and plant science in Latin America*. Waltham, Massachusetts, Chronica Botanica Co., p. 267.

[1937] "DISTRIBUTION OF TYPES OF VEGETATION IN CHIHUAHUA"

black and white

[1:7,850,000]

LEGEND

- | | |
|---------------------------|----------------------|
| 1. Desert | 3. Pine forest |
| 2. Oak forest & grassland | 4. Barranca [forest] |

SHREVE, FORREST

1939 "Observations on the vegetation of Chihuahua." *Madroño*, vol. 5, p. 4.

[1938] "VEGETATION AND CLIMATIC TYPES OF NUEVO LEON, MEXICO"

black and white

[1:3,300,000]

LEGEND

1. Eastern coastal plain scrub with a warm and semi-arid climatic type (BShw)
2. Central plateau desert scrub with a warm and arid climatic type (BSkwg)
3. Piedmont scrub with a mild and semi-arid climatic type (Cwan)
4. Montane low forest also comprising a part of the mild and semi-arid climatic type (Cwan)
5. Montane mesic forest with a cool and subhumid climatic type (Cwbn)
6. Western montane chaparral with a cool and semi-arid climatic type (Bsk'w)
7. Subalpine humid forest with a cold and humid climatic type (Cwbn)
8. Alpine meadow with an alpine climatic type (ETn)

MULLER, CORNELIUS H.

1939 "Relations of the vegetation and climatic types in Nuevo Leon, Mexico." *American Midland Naturalist*, vol. 21, p. 729.

[1939] "VEGETATION MAP OF THE RÍO MAYO BASIN"

black and white

[1:3,400,000]

LEGEND

- | | |
|-----------------|----------------------|
| 1. Thorn forest | 3. Short-tree forest |
| 2. Oak forest | 4. Pine forest |

GENTRY, HOWARD SCOTT

1942 *Río Mayo plants, a study of the flora and vegetation of the Valley of the Río Mayo, Sonora*. Carnegie Inst. Washington, Publ. no. 527, p. 28.

- [1941] "REGION OF THE RIO DE BAVISPE, NORTHEASTERN SONORA, MEXICO"
 black and white [1:1,500,000]

LEGEND

- | | |
|-----------------------|----------------|
| 1. Mesquite-grassland | 3. Pine forest |
| 2. Oak-grassland | |

WHITE, STEPHEN S.

1948 "The vegetation and flora of the region of the Río de Bavispe in northeastern Sonora," Mexico. *Lloydia*, vol. 11, p. 230.

- [1942] "ENSAYO DE LOCALIZACIÓN DE LAS SIMORFIAS VEGETALES DOMINANTES EN LA REPÚBLICA MEXICANA"
 in color 1:10,000,000

LEGEND

- | | |
|-----------------------|---------------------------|
| 1. Arboretum | 3. Graminoidetum |
| a. Selva tropical | a. Sabana |
| b. Bosque tropical | b. Pradera semi-esteparia |
| c. Bosque sub-alpino | c. Estepa |
| 2. Fruticetum | 4. Crassicauletum |
| a. Chaparral espinoso | 5. Sub-fruticetum |

CONTRERAS ARIAS, ALFONSO

1942 *Mapa de las provincias climatológicas de la República Mexicana*. [Mexico City], Secretaría de Agricultura y Fomento, Dirección de Geografía, Meteorología e Hidrología, Instituto Geográfico, following p. 27.

- [1942] "TIMBER AREAS [OF MEXICO]"
 black and white [1:8,800,000]

LEGEND

- | | |
|--------------------------|---------------|
| 1. Pine | 5. Chicle |
| 2. Cedar, mahogany, etc. | 6. Walnut |
| 3. Ash | 7. Rubber |
| 4. Oak | 8. Cork woods |

GENERAL MOTORS OVERSEAS OPERATIONS, *New York*

1942 *Economic survey of Mexico*. New York, General Motors Overseas Operations [Division of General Motors Corporation], Fig. 4, following p. 131.

- [1944] "VEGETATION TYPES OF YUCATAN AND QUINTANA ROO"
 black and white [1:4,000,000]

LEGEND

- | | |
|------------------------|-----------------------|
| 1. Swamps and savannas | 4. Maize zone |
| 2. Henequen zone | 5. Varied agriculture |
| 3. Forests | 6. Sugar cane zone |

"Based on the 1944 and 1937 charts of the Secretaría de Agricultura y Fomento"

HATT, ROBERT T. *and others*

1953 *Faunal and archaeological researches in Yucatan caves*. Cranbrook Inst. Sci., Bull. no. 33, p. 13.

- [1946] "VEGETATION TYPES IN THE MODERN TARASCAN AREA [MICHUACÁN]"
[Area: From latitude 19° 10' to 20° 00' N. and longitude 101° 21' to 102° 7' W.]
black and white [1:487,000]

LEGEND

1. Fir forest
2. Pine-oak forest (a large part cut over & cleared for cultivation)
3. Oak & scrub oak forest
4. Sierra Basin asso. (probable grass & open woods, now in plowland)
5. Former marsh asso. (areas now drained & converted to plowland)
6. Grass-scrub asso. of northern plateau
7. Tropical scrub of southern escarpment

WEST, ROBERT C.

1948 *Cultural geography of the modern Tarascan area*. Smithsonian Inst., Inst. of Soc. Anthropol. Publ. no. 7, facing p. 8.

- [1947] "DISTRIBUTION OF VEGETATION TYPES IN COAHUILA"
black and white [1:5,000,000]

LEGEND

- | | |
|---|-------------------------|
| 1. Chihuahuan desert shrub | 5. Montane low forest |
| 2. Tamaulipan thorn shrub | 6. Montane chaparral |
| 3. Piedmont shrub | 7. Montane mesic forest |
| 4. Grassland (and grassland transition) | |

MULLER, CORNELIUS H.

1947 "Vegetation and climate of Coahuila, Mexico." *Madroño*, vol. 9, p. 40.

- [1948] "PASTIZALES Y VEGETACIÓN VECINA EN DURANGO Y PARTE DE ZACATECAS"
black and white 1:1,500,000

LEGEND

- | | |
|------------------------------|--------------------------|
| 1. Pastizal de encino-enebro | 3. Pastizal con arbustos |
| 2. Pastizal | 4. Chaparrillo |

GENTRY, HOWARD SCOTT

1957 *Los pastizales de Durango, estudio ecológico, fisiográfico y florístico*. Translated by Efraim Hernandez Xolocotzi. Mexico City, Instituto Mexicano de Recursos Naturales Renovables, p. 27. (Outline reprinted, including all types except chaparral, same scale, on page 102, as "Limite aproximado del pastizal de grama.")

- 1949 "CARTA DE ZONAS FORESTALES DE LA REPUBLICA MEXICANA"
in color [1:4,900,000]

LEGEND

1. Chaparral y transición
2. Litoral (manglares, palmares, amates, etc.)
3. Tropical y subtropical (chijol, huanacastle, chicozapote, primavera, ramón, caoba, cedro rojo)
4. Coníferas (pino, oyamel, ciprés, cedro blanco, etc.)
5. Templada (encino, palo blanco, madroño, linaloé, copal, aile, pino piñón, etc.)
6. Selva espinosa (leguminosas espinosas y micrófilas)
7. Desértica y subdesértica (mezquite, huizache, cactáceas, agaves, etc.)

GARCIA MARTINEZ, JOSÉ (*modified by B. OSORIO TAFALL*)

1949 *In* Tamayo, Jorge L., *Atlas de la geografía general de México*. Mexico City, Tallares Gráficos de la Nación, map no. 16.

[1950] "MEXICO, VEGETATION MAP"

black and white

[1:19,000,000]

LEGEND

- | | |
|---|---|
| <p>A. Temperate</p> <ol style="list-style-type: none"> 1. Boreal forest 2. Pine-oak forest 3. Chaparral 4. Mesquite-grassland 5. Desert <p>B. Tropical</p> <ol style="list-style-type: none"> 6. Cloud forest | <ol style="list-style-type: none"> 7. Rain forest 8. Tropical evergreen forest 9. Savannah 10. Tropical deciduous forest 11. Thorn forest 12. Arid tropical scrub |
|---|---|

LEOPOLD, A. STARKER

1950 "Vegetation zones of Mexico." *Ecology*, vol. 31, p. 508. Reprinted, 1952 [1:7,200,000], with legend in Spanish, *in* Aerellano, Luiz Marcías, "Zonas de vegetación en México." *Bol. Soc. de Geogr. y Estadística*, vol. 73, facing p. 74; 1955 [1:11,800,000], *in* Winters, R. K., "Mexico's timber situation." *In* U. S. Forest Service, *Timber resources of North America and the world. Preliminary review draft*, p. 34; 1958 [1:14,800,000], *in* U. S. Forest Service, *Timber resources for America's future*. U. S. Dept. Agr., Forest Resource Rept. no. 14, p. 341. Slightly revised, 1951 [1:8,500,000], by A. Starker Leopold, [Separately published], Berkeley, California, Museum of Vertebrate Zoology, University of California, 1 p.; revision reprinted, 1959 [1:12,200,000], *in* color, *in* Leopold, A. Starker, *Wildlife of Mexico, the game birds and mammals*. Berkeley, California, University of California Press, facing p. 17.

1950 "NORTHERN MEXICO—NATURAL VEGETATION"

black and white

1:12,500,000

LEGEND

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Xerophytic shrub and desert
grass 2. Scrub forest | <ol style="list-style-type: none"> 3. Coniferous forest 4. Prairie |
|---|--|

JAMES, PRESTON E.

1950 *Latin America*. (Revised edition.) New York, The Odyssey Press. p. 555.

[1950] "[ZONAS DE VEGETACIÓN, ESTADO DE CHIAPAS]"

black and white

[1:2,000,000]

LEGEND

1. Bosque tropical de la vertiente del Pacífico
2. Xerofitía tehuana
3. Bosque de coníferas en la Sierra Madre de Chiapas
4. Tropofitía de la depresión central
5. Praderas xerofíticas occidentales
6. Bosque de coníferas en la cordillera central
7. Bosque tropical en la vertiente del Golfo

Also indicates by symbol: Tropofitía, Higrofitía, Llanuras, Xerofitio, Coníferos

ALVAREZ DEL VILLAR, JOSÉ

1952 "Esquema geobotánico de Chiapas." *Boletín Sociedad Mexicana de Geografía y Estadística*, vol. 73, facing p. 124.

[1951] "BAJA CALIFORNIA, TERRITORIO NORTE, RECURSOS FORESTALES"

in color

[1:11,000,000]

LEGEND

1. Chaparral y transición
2. Templada (encino, pino blanco, madroño, linaloé, copal, aile, pino piñón, etc.)
3. Coníferas (pino, oyamel, ciprés, cedro blanco, etc.)
4. Desértica y subdesértica (mezquite, huizache, cactáceas, agaves, etc.)

ATTOLINI, JOSÉ

1951 "El estado de Baja California en Graficas." *Boletín Soc. Mexicana de Geogr. y Estadística*, vol. 72, following p. [146].

[1952] "VEGETATION ZONES"

black and white

[1:5,000,000]

LEGEND

- | | |
|---------------------|----------|
| 1. Deciduous forest | 3. Scrub |
| 2. Rain forest | |

PAYNTER, RAYMOND A., JR.

1955 *The ornithogeography of the Yucatan Peninsula*. Peabody Mus. Nat. Hist., Yale Univ., Bull. no. 9, p. [15].

1952 "MAPA DE LA VEGETACIÓN DE CHIAPAS"

black and white

1:1,250,000

LEGEND

- | | |
|--------------------------------|--|
| 1. Selvas altas siempre verdes | 2. Sabanas y selvas altas
subdeciduas en las vegas de los
rios |
|--------------------------------|--|

MEXICO

- | | |
|--------------------------------|---|
| 3. Selvas bajas deciduas | 7. Bosques deciduos (con <i>Liquidambar</i>) |
| 4. Palmares | 8. Encinares y pinares |
| 5. Manglares | 9. Bosques con romerillo (<i>Abies</i>) |
| 6. Selvas bajas siempre verdes | 10. Pinares y páramos de altura |

MIRANDA, FAUSTINO

1952 *La Vegetación de Chiapas*. Tuxtla Gutierrez, Chis., Mexico. Departamento de Prensa y Turismo, facing p. 20.

- [1953] "VEGETATION, THE GOMEZ FARIAS REGION"
black and white [1:435,000]

LEGEND

- | | |
|-----------------------------------|--------------------------|
| 1. Thorn forest and scrub | 5. Cloud forest |
| 2. Thorn forest | 6. Humid pine-oak forest |
| 3. Tropical deciduous forest | 7. Dry pine-oak forest |
| 4. Tropical semi-evergreen forest | 8. Chaparral |

MARTIN, PAUL S.

1958 *A biogeography of reptiles and amphibians in the Gomez Farias Region, Tamaulipas, Mexico*. Univ. Michigan, Mus. Zool., Misc. Publ. no. 101, p. 28.

- 1957 "MAPA DE LA VEGETACION DE LAS PARTES ARIDAS DE LOS ESTADOS DE SAN LUIS POTOSI Y ZACATECAS"
black and white 1:4,000,000

LEGEND

- | | |
|----------------------------------|------------------------|
| 1. Matorral desértico micrófilo | 3. Matorral crasicaule |
| 2. Matorral desértico rosetófilo | |

RZEDOWSKI, J.

1957 "Vegetación de las partes áridas de los estados de San Luis Potosí y Zacatecas." *Revista de la Sociedad Mexicana de Historia Natural*, vol. 18, p. 61.

- [1960] "THE VEGETATIONAL ZONES OF MEXICO (AFTER VIVO)"
black and white [1:22,000,000]

LEGEND

- | | |
|---------------------------|---|
| 1. Tropical forest | 4. Temperate grassland |
| 2. Savanna | 5. Temperate forest (mainly coniferous) |
| 3. Semi-desert and desert | |

BUTLAND, GILBERT J.

1960 *Latin America, a regional geography*. London, Longmans, Green and Co., Ltd., p. 31.

- 1960 "MAPA DE LA VEGETACION DEL VALLE DE SAN LUIS POTOSI"
black and white 1:95,000

LEGEND

- | | |
|---------------------------------|----------------------|
| 1. Matorral desértico aluvial | 5. Encinar arbustivo |
| 2. Matorral cactus-mezquite | 6. Encinar |
| 3. Matorral desértico calcícola | 7. Piñonar |
| 4. Zacatal | |

RZEDOWSKI, GRACIELA C. DE

1960 "Notas sobre la flora y la vegetación del estado de San Luis Potosí: VII. Vegetación en el Valle de San Luis Potosí." *Acta Científica Potosina*, Vol. 4, no. 1, in pocket.

CENTRAL AMERICA

- 1900 "DIE VERBREITUNG DER VEGETATIONSFORMATIONEN IM SÜDLICHEN MITTELAMERIKA"
in color 1:3,400,000

LEGEND

1. Regenfeuchte Urwälder des heissen und gemässigten Landes
2. Halbwälder, Urwälder des Tieflandes mit Corozowäldern u. Sabannen wechselnd
3. Regenfeuchte Wälder des kalten Landes
4. Eichen- und Kiefernwälder des mässigfeuchten heissen und gemässigten Landes
5. Sabannen und Strauchsteppen
6. Trockenwälder des heissen Landes
7. Vorkommen v. Kiefern ausserhalb der Zonen der Eichen-Kiefernwälder oder der regenfeuchten Wälder d. kalten Landes

SAPPER, KARL

1902 *Mittelamerikanische Reisen und Studien aus den Jahren 1888 bis 1900*. Braunschweig, Friedrich Vieweg und Sohn, inserted at back.

- 1919 "GUATEMALA—HONDURAS"
in color 1:100,000

LEGEND

1. Heavy upland tropical forest (or upland moist-land forest)
2. Pine forest
3. Medium-heavy upland forest
4. Light upland tropical forest; much bush or second growth (relatively dry-land upland)
5. Stream-bottom jungle, very heavy tropical forest and swampy areas of dense bushy and grassy growth (or moist-land stream-bottom forest)
6. Light bench-land and bottom tropical forest (or relatively dry-land bench and bottom forest)
7. Medium-heavy second-bottom tropical forest, with some bush swamp areas and some savannas

MARBUT, C. F. and H. H. BENNETT

1919 New York, American Geographical Society.

- [1928] "SALVADOR ET HONDURAS: RELIEF ET VÉGÉTATION"
black and white 1:2,500,000

LEGEND

1. Forêts tropicales et savanes
3. Forêt claire avec arbres de

2. Forêts de chênes et de pins et savane
savanes 4. Savanes

SORRE, MAX

1928 "México, Amérique centrale." *Géographie Universelle*, vol. 14, p. 115.

- 1934 "VEGETATION MAP OF THE YUCATAN PENINSULA"
black and white [1:3,600,000]

LEGEND

1. Dry scrub forest, secondary in nature and cultivated areas
 - a. Northern Yucatan phytogeographical division
2. Primary forest dominated on the uplands by the sapodilla tree, *Achras zapota* L.
 - a. Eastern coast phytogeographical division
 - b. Southern Campeche phytogeographical division
 - c. Southwestern Campeche phytogeographical division
 - d. Northern Peten phytogeographical division

LUNDELL, CYRUS LONGWORTH

1934 "Preliminary sketch of the phytogeography of the Yucatan Peninsula." *In* Carnegie Inst. Washington, Publ. no. 436, *Contrib. Amer. Archaeol.*, vol. 2, no. 12, p. 259.

- [1942] "CENTRAL AND SOUTHERN MEXICO, GUATEMALA, BRITISH HONDURAS, EL SALVADOR: NATURAL VEGETATION"
black and white [1:12,200,000]

LEGEND

1. Xerophytic shrub and desert grass
2. Scrub forest
3. Tropical forest
4. Coniferous forest
5. Savanna
6. Short grass steppe

JAMES, PRESTON EVERETT

1942 *Latin America*. New York, Odyssey Press, p. 639. Reprinted, 1950 *Ibid.*, Revised edition. New York, Odyssey Press, p. 585.

- [1942] "NICARAGUA, COSTA RICA, PANAMÁ: NATURAL VEGETATION"
black and white [1:11,200,000]

LEGEND

1. Savanna
2. Scrub forest
3. Tropical forest
4. Coniferous forest

JAMES, PRESTON EVERETT

1942 *Latin America*. New York, Odyssey Press, p. 699. Reprinted, 1950 *Ibid.*, Revised edition. New York, Odyssey Press, p. 642.

- [1953] "AMÉRICA CENTRAL: VEGETACIÓN NATURAL (GENERALIZADA)"
in color [1:7,750,000]

LEGEND

1. Mangles y palmares de playa
2. Selva tropical húmeda
3. Bosques de las montañas de altitudes medias (pinares y robledales en el norte; bosques húmedos, con robles, en Costa Rica y Panamá)
4. Bosques deciduos y secos y bosques de ribera; sabana
5. Pajonales, bosques coníferos de tierra fría, praderas húmedas del páramo en las montañas mas altas
6. Cactus, espinos y otros arbustos de climas secos

McBRYDE, FELIX WEBSTER

1953 *In* Trejos, Emilio Wille, and Alford Archer, *Atlas estadístico de Costa Rica*. San José, Ministerio de Economía y Hacienda Dirección General de Estadística y Censor, p. 19.

- [1954] "DISTRIBUTION OF CLOUD FOREST [NORTHERN MIDDLE AMERICA]"
black and white [1:16,600,000]

LEGEND

1. [Cloud forest]

MARTIN, PAUL S.

1955 "Zonal distribution of vertebrates in a Mexican cloud forest." *American Naturalist*, vol. 89, p. 349.

- [1953] "THE EXTENT OF THE 'MISKITO SAVANNA'"
black and white [1:3,000,000]

LEGEND

1. [Miskito pine savanna]

ARNOLD, BRIGHAM

1955 *In* Parsons, James J., "The Miskito pine savanna of Nicaragua and Honduras." *Annals of the Association of American Geographers*, vol. 45, p. 37.

- [1958] "CONIFER FORESTS OF MEXICO AND CENTRAL AMERICA"
black and white [1:15,100,000]

LEGEND

1. [Conifer forests]

Also indicates "Southern limit of pine forests in the western hemisphere"

MIROV, N. T. and EGON LARSEN

1958 "Possibilities of Mexican and Central American pines in the world reforestation projects." *Caribbean Forester*, vol. 19, p. 46.

- 1959 "DIE KLIMATISCHEN VEGETATIONSGBIETE IN ZENTRALAMERIKA"
in color 1:8,825,000

LEGEND

- A. Tierra caliente
 1. Immergrüner Regenwald

-
2. Regengrüner Feuchtwald und Savanne
 3. Regengrüner Trockenwald und Savanne
 4. Regengrüner Dorn- und Sukkulantenbusch
 5. Kiefern savannen des feuchten Tieflandes (edaphisch bedingt)
- B. Tierra templada
6. a. Immergrüner Bergwald
 - b. Immergrüner Bergwald mit Kiefern und Eichen
 7. Regengrüner Bergwald mit Eichen
 - b. Bergmischwald mit Kiefern/Eichen
- C. Tierra fría
8. a. Höhen-Nebelwald
 - b. Höhen-Nebelwald (Mischwald) (Kiefern, Eichen, Tannen)
 9. Regenfeuchter Höhenmischwald (Kiefern, Eichen, Tannen)
- D. Tierra helada
10. Höhengrasland (Zacatales)
 11. a. Páramo
 - b. Höhengrasland mit Kiefern

LAUER, WILHELM

1960 "Probleme der Vegetationsgliederung auf der mittelamerikanischen Landbrücke." Wiesbaden. *Tagungsbericht und wissenschaftliche Abhandlungen, Deutscher Geographentag, Berlin, 1959.* facing p. 128.

BRITISH HONDURAS

- [1925] "SKETCH MAP OF BRITISH HONDURAS SHOWING GEOGRAPHIC REGIONS"
black and white [1:2,500,000]

LEGEND

1. Low coastal zone
2. Upland forests
3. Highland savanna

RENNER, G. T., JR.

1925 "British Honduras." *Journal of Geography*, vol. 24, p. 114.

- 1938 "VEGETATION, BRITISH HONDURAS"
green and white [1:854,000]

LEGEND

1. Cultivation (existing, abandoned)
2. Swamp (coastal mangrove, wet savannah, low swamp associations)
3. Grass and pine lands (dry savannah, pine forest)
4. High rain forest (intermediate, mountain, advanced, other associations)

ANON.

1939 *In Atlas of British Honduras*. [Belize], British Honduras, Survey Dept., map no. 6.

- [1942] "VEGETATION MAP OF BRITISH HONDURAS"
black and white [1:1,400,000]

LEGEND

1. Mangrove swamps
2. Pinelands and barrens
3. Inland swamps and marshes
4. Quasi-rainforest and rainforest

LUNDELL, C. L.

1942 "The vegetation and natural resources of British Honduras." *Chronica Bot.*, vol. 7, p. 170. Reprinted, 1945 in his "The vegetation and natural resources of British Honduras." In Verdoorn, F. (ed.), *Plants and plant science in Latin America*. Waltham, Massachusetts, Chronica Botanica Co., p. 272.

- 1958 "BRITISH HONDURAS, NATURAL VEGETATION MAP"
in color 1:250,000

LEGEND

1. Broadleaf forest rich in lime-loving species
 - a. Deciduous seasonal forest
 - b. Deciduous semi-evergreen seasonal forest
2. Broadleaf forest moderately rich in lime-loving species

-
- a. Evergreen and semi-evergreen seasonal forest
 3. Broadleaf forest with occasional lime-loving species
 - a. Evergreen seasonal forest
 - b. Semi-evergreen seasonal forest
 4. Broadleaf forest with few lime-loving species
 - a. Evergreen seasonal forest
 - b. Semi-evergreen seasonal forest
 5. Transitional broadleaf forest rich in lime-loving species
 6. Transitional broadleaf forest poor in lime-loving species
 - a. Semi-evergreen seasonal forest
 - b. Evergreen seasonal forest
 7. Transitional low broadleaf forest and shrubland
 - a. Rich in lime-loving species
 - b. Poor in lime-loving species
 8. Shrubland with pine
 9. Pine forest and orchard savanna
 - a. With lime-loving species
 - b. Without lime-loving species
 10. High marsh forest
 11. Low marsh forest
 12. Herbaceous marsh and swamp
 13. High swamp forest
 14. Palm swamp
 15. Mangrove swamp
 16. Littoral forest
 17. Littoral swamp
 18. Cohune palm forest

WRIGHT, A. C. S. *and others*

1960 Belize, Brit. Hond., Survey Department.

COSTA RICA

- 1879 "VERSUCH EINER PFLANZENGEOGRAPHISCHEN KARTE DER REPUBLIK COSTA-RICA"
in color 1:2,250,000
- LEGEND
- | | |
|-------------------------|------------------------|
| 1. Cultiviertes Terrain | 3. Parkartige Urwälder |
| 2. Urwälder | 4. Savannen |
- POLAKOWSKY, HELMUTH
1879 "Versuch einer pflanzengeographischen Karte der Republik Costa Rica." *Jahresbericht. Verein für Erdkunde, Dresden.* p. 124.
- 1939 "COSTA RICA"
black and white 1:3,350,000
- LEGEND
- | | |
|-----------------------------------|---------------------|
| 1. Evergreen tropical rain forest | 3. Deciduous forest |
| 2. Savanna | |
- WEIBEL, LEO
1939 "White settlement in Costa Rica." *Geographical Review*, vol. 29, p. 532.
- 1943 "FOREST TYPE MAP OF COSTA RICA"
in color 1:1,500,000
- LEGEND
- | | |
|--|----------------------|
| 1. Virgin forest (evergreen rain forest) | 4. Cloud forest |
| 2. Culled forest (evergreen rain forest) | 5. Palm swamp |
| 3. Second growth (evergreen rain forest) | 6. Páramo |
| | 7. Savanna |
| | 8. Agricultural land |
- UNITED STATES. *Forest Service*
1943 *The Forests of Costa Rica.* Latin American forest resources project. Washington.
- [1943] "COSTA RICA: NATURAL RESOURCES AND LAND USE"
in color [1:503,000]
- LEGEND
1. Evergreen rain forest with scattered agricultural, pastoral, and forest activities
 2. Deciduous woodland (culled), interspersed with farm land, land cleared for grazing, and belts of natural savanna. Present heavy exploitation of timber along navigable rivers and coasts

3. Evergreen rain forest (second growth), mostly on abandoned banana lands
4. Savanna, devoted largely to cattle grazing and scattered farming
5. Palm swamp
6. Upland rain forest (cloud forest)
7. Páramo (alpine scrub)

Also indicates seven types of agricultural land use, location of economic mineral resources, and volcanos or cerros (volcanoes or peaks)

UNITED STATES. *Department of State. Division of Map Intelligence and Cartography*
1946 Washington, Dept. of State.

1952 "TENTATIVA DE DISTRIBUCIÓN DE VEGETACIÓN"
black and white 1:2,000,000

LEGEND

- | | |
|---------------------------|-----------------|
| 1. Selva tropical | 4. Bosque mixto |
| 2. Bosque tropical húmedo | 5. Sabana |
| 3. Bosque tropical seco | |

QUIRÓS AMADOR, TULIA

1954 *Geografía de Costa Rica*. San José. facing p. 64.

[1953] "FORMACIÓN FORESTAL (PROVISIONAL)"
in color [1:1,700,000]

LEGEND

- | | |
|----------------------|----------------------|
| A. Tropical | 5. Bosque húmedo |
| 1. Bosque seco | 6. Bosque muy húmedo |
| 2. Boque húmedo | 7. Bosque pluvial |
| B. Sub-tropical | D. Montano |
| 3. Bosque húmedo | 8. Bosque muy húmedo |
| 4. Bosque muy húmedo | E. Sub-alpino |
| C. Montano bajo | 9. Páramo húmedo |

HOLDRIDGE, LESLIE RENSSLAER

1953 "La vegetación de Costa Rica." In Trejos, Emilio Wille, and Alford Archer, *Atlas estadístico de Costa Rica*. San José, Sección de Cartografía y Divulgación, Dirección General de Estadística y Censos, Ministerio de Economía y Hacienda, p. 33.

1959 "MAPA ECOLÓGICO DE COSTA RICA"
in color 1:1,000,000

LEGEND

- | | |
|----------------------------------|-----------------------------------|
| 1. Bosque tropical seco | 7. Bosque muy húmedo montano bajo |
| 2. Bosque tropical húmedo | 8. Bosque pluvial montano bajo |
| 3. Bosque tropical muy húmedo | 9. Bosque muy húmedo montano |
| 4. Bosque subtropical húmedo | 10. Bosque húmedo subalpino |
| 5. Bosque subtropical muy húmedo | |
| 6. Bosque húmedo montano bajo | |

HOLDRIDGE, LESLIE RENSSLAER

1959 In Hunter, J. Robert, *Límites climáticos del cacao, café y hule*. Turrialba, Costa Rica, Instituto Interamericano de Ciencias Agrícolas, Materiales de enseñanza de café y cacao no. 16-E.

EL SALVADOR

1955 "MAPA DE VEGETACIÓN"
in color 1:961,000

LEGEND

- | | |
|--|--|
| 1. Vegetación de la playa | 6. Sabanas secas (Morrales) |
| 2. Bosques salados (Manglares) | 7. Montes secos (Chaparrales) |
| 3. Bosques húmedos de los terrenos
bajos y bosques perennifolios de
los ríos | 8. Bosques serranos mesofíticos
(Encinar y Pinar) |
| 4. Sabanas semihúmedas | 9. Bosques nebulosos |
| 5. Bosques semihúmedos
caducifolios | 10. Sabanas altas |

LAUER, WILHELM

1955 *Atlas Censal de El Salvador*. Ministerio de Economía, Dirección General de Estadística y Censos, p. 31.

1959 "MAPA ECOLÓGICO DE EL SALVADOR"
in color 1:1,000,000

LEGEND

1. Bosque muy húmedo montano bajo
2. Bosque seco subtropical
3. Bosque húmedo subtropical
4. Bosque seco tropical
5. Asociación de terrenos inundables
6. Asociación de morral (áreas de ejemplo)
7. Asociación de curatella (áreas de ejemplo)

HOLDRIDGE, LESLIE RENNELAER

1959 In Hunter, J. Robert, *Límites climáticos del cacao, café y hule*. Turrialba, Costa, Rica, Instituto Interamericano de Ciencias Agrícolas, Materiales de enseñanza de café y cacao no. 16-E.

GUATEMALA

- [1901] "DIE VERBREITUNG DER VEGETATIONSFORMATIONEN IN DER ALTA VERAPAZ"
 in color 1:460,300

LEGEND

- | | |
|---------------------------------|-----------------------------|
| 1. Halb-Wald | 4. Sabannen mit Kiefern |
| 2. Grasfluren u. Strauchsteppen | 5. Wälder mit Kiefern |
| 3. Regenfeuchte Urwälder | 6. Eichen- u. Kiefernwälder |

SAPPER, KARL

1901 "Die Alta Verapaz (Guatemala)." *Mitt. Geogr. Gesell. Hamburg*, vol. 17, map no. 5, inserted between pp. 224-225.

- [1933] "DEPARTMENT OF PETÉN, GUATEMALA"
 black and white [1:1,800,000]

LEGEND

1. Central Petén savanna country

LUNDELL, CYRUS LONGWORTH

1937 *The vegetation of Petén*. Carnegie Inst. Washington. Publ. no. 478, facing p. 1.

- [1943] "GUATEMALA AND ITS VEGETATION"
 black and white [1:3,500,000]

LEGEND

- | | |
|--------------------------|---------------------------------|
| 1. Petén plains | 7. Alta Verapaz wet forest |
| 2. Mangrove swamp | 8. Pacific bocacosta |
| 3. Atlantic rainforest | 9. Temperate-cold upland forest |
| 4. Low savanna | 10. Coniferous forest |
| 5. Pacific plains forest | 11. Alpine |
| 6. Desert-chaparral | |

STANDLEY, PAUL C. and JULIAN A. STEYERMARK

1943 "The vegetation of Guatemala, a brief review." *Chronica Bot.*, vol. 7, p. 317. Reprinted, 1945 in their "The vegetation of Guatemala, a brief review." In Verdoorn, Frans (ed.), *Plants and plant science in Latin America*. Waltham, Massachusetts, Chronica Botanica Co., p. 277; 1950 in Steyermark, Julian A., "Flora of Guatemala." *Ecology*, vol. 31, p. 369.

GUATEMALA

1959 "MAPA ECOLÓGICO DE GUATEMALA"
in color

1:1,000,000

LEGEND

- | | |
|----------------------------------|------------------------------------|
| 1. Bosque tropical muy seco | 8. Bosque seco montano bajo |
| 2. Bosque tropical seco | 9. Bosque húmedo montano bajo |
| 3. Bosque tropical húmedo | 10. Bosque muy húmedo montano bajo |
| 4. Bosque subtropical seco | 11. Bosque húmedo montano |
| 5. Bosque subtropical húmedo | 12. Bosque muy húmedo montano |
| 6. Bosque subtropical muy húmedo | |
| 7. Bosque subtropical pluvial | |

HOLDRIDGE, LESLIE RENNELAER

1959 In Hunter, J. Robert, *Límites climáticos del cacao, café y hule*.
Turrialba, Costa Rica, Instituto Interamericano de Ciencias Agrícolas,
Materiales de enseñanza de café y cacao n°. 16-E, 2 sheets.

HONDURAS

- 1901 "VERBREITUNG DER VEGETATIONSFORMATIONEN IN HONDURAS"
green, black, and white 1:1,000,000

LEGEND

1. Litoralwälder
2. Regenfeuchte Wälder des Flachlandes zuweil. in Baumsabannen (BS) übergehend
3. Tropische u. subtropische Regenwälder des Gebirgslandes
4. Feuchte Laub- u. Nadelwälder des kalten Landes
4. Eichen- u. Kiefernwälder (Gebiete ausgesprochener Trockenzeit)
6. Sabannen, Strauchsteppen, Chaparrales, Jicarales
7. Sabannen mit Kiefern (Pineridges)
8. Urwälder im Gebiet ausgesprochener Trockenzeit vielfach in Baumsabannen (BS) übergehend

SAPPER, KARL

1902 "Beiträge zur physischen Geographie von Honduras."
Zeitschr. der Gesell. für Erdk., 1902, following p. 164.

- 1954-1956 "SAVANNAS OF INTERIOR HONDURAS (7 MAPS)"
black and white

1. SAVANNAS OF THE COMAYAGUA VALLEY, 1:80,000
2. SAVANNAS OF THE TALANGA VALLEY, 1:128,000
3. SAVANNAS OF THE GUAYAPE RIVER VALLEY, 1:440,000
4. SAVANNAS OF THE LEPAGUARE VALLEY, 1:64,000
5. SAVANNAS OF THE AGALTA VALLEY, 1:320,000
6. SAVANNAS OF THE YORO VALLEY, 1:90,000
7. SAVANNAS OF THE OLANCHITO VALLEY, 1:164,000

LEGEND

1. Savannas

JOHANNESSEN, CARL L.

1963 "Savannas of interior Honduras." *Ibero-Americana*, vol. 46.
Maps (in above order) facing p. 48 and on pp. 57, 60, 62, 68, 70 and 74.

NICARAGUA

- [1950] "NICARAGUA [FOREST TYPES]"
black and white [1:4,700,000]

LEGEND

1. Softwood (pine) forest type 2. Hardwood forest type

Identification, F.A.O. chart no. 336, is printed at lower right margin of map

[GARVER, R. D.]

1950 *In* Trumble, H. C., and others, *Report of the FAO mission for Nicaragua*. Washington, Food and Agricultural Organization of the United Nations, p. 49.

- [1961] "DISTRIBUTION OF THE MAJOR VEGETATION ZONES IN NICARAGUA"
black and white [1:3,900,000]

LEGEND

1. Lowland evergreen rain forest 5. Deciduous forest
2. Lower montane rain forest 6. Azonal communities
3. Seasonal evergreen rain forest 7. Pine forest and pine savanna
4. Semi-evergreen rain forest

Also indicates "Limits of sporadic occurrence of upland pine and oak forests"

TAYLOR, B. W.

1963 "An outline of the vegetation of Nicaragua." *Journal of Ecology*, vol. 51, p. 33.

P A N A M A

- [1935] "MAP OF BARRO COLORADO ISLAND, GATUN LAKE, PANAMA CANAL ZONE"
black and white [1:526,000]

LEGEND

1. Unmodified rain forest

PARK, ORLANDO, ALBERT BARDEN *and* ELIOT WILLIAMS

1940 "Studies in nocturnal ecology, IX. Further analysis of activity of Panama rain forest animals." *Ecology*, vol. 21, p. 123. (Data from Enders, R. K., (1935), "Mammalian life histories from Barro Colorado Island, Panama." *Bull. Mus. Comparative Zool.*, vol. 78, pp. 387-502.)

- [1938] "NATURAL VEGETATION, ISTHMUS OF PANAMA"
black and white [1:4,000,000]

LEGEND

1. Rain forest
2. Wet and dry forest
3. Savannah

PLATT, ROBERT S.

1938 "Items in the regional geography of Panamá: with some comments on contemporary geographic method." *Annals of the Association of American Geographers*, vol. 28, p. 28.

- 1945 "VEGETATION MAP OF SAN JOSE ISLAND, REPUBLIC OF PANAMA"
black and white [1:81,400]

LEGEND

1. Predominantly forest
2. Predominantly low scrub
3. Grassland

ERLANSON, C. O.

1946 *The vegetation of San José Island, Panamá*. Washington, Smithsonian Inst., Publ. no. 384, Smithsonian Misc. Coll., vol. 106, p. 5.

- [1947] "DIAGRAMMATIC LOCATION OF COMMERCIAL FOREST LAND IN THE REPUBLIC OF PANAMA INCLUDING BOTH RAIN AND DECIDUOUS FORESTS"
black and white [1:3,000,000]

LEGEND

1. Rain forest on the Atlantic side
2. Deciduous forest on the Pacific side
3. Noncommercial forest land

PANAMA

GARVER, RAYMOND D.

[1947] *Republic of Panamá report*. Washington, Office of Foreign Agricultural Relations, p. 5A.

- [1952] "FORT SHERMAN, CANAL ZONE, VEGETATION [FORT GULICK, C. Z., INSET AT SAME SCALE]"
 green and white [1:88,000]

LEGEND

- | | |
|------------------------------|---------------------------------|
| 1. Clearings | 3. Lowland marsh & swamp forest |
| 2. Tropical evergreen forest | |

WILEY, SELVA C., ARTHUR V. DODD and JACK V. CHAMBERS

1955 *Environmental handbook of Fort Sherman and Fort Gulick, Panamá Canal Zone*. Natick, Massachusetts, U. S. Army, Headquarters Quartermaster Res. & Develop. Command, Environmental Protection Div., Tech. Rept. EP-17, p. 22.

- [1956] "PLANT FORMATION ZONE—REPUBLIC OF PANAMÁ"
 black and white [1:2,800,000]

LEGEND

- | | |
|---------------------------------------|-----------------------------|
| 1. Tropical dry forest | 5. Subtropical moist forest |
| 2. Tropical dry forest (transition) | 6. Subtropical wet forest |
| 3. Tropical moist forest | 7. Lower montane wet forest |
| 4. Tropical moist forest (transition) | 8. Montane wet forest |

HOLDRIDGE, LESLIE RENSSLAER and GERARDO BUDOWSKI

1956 "Report of an ecological survey of the Republic of Panamá." *Caribbean Forester*, vol. 17, p. 95. Reprinted, 1957 in their "Informe sobre un levantamiento ecológico de Panamá." *Ibid.*, vol. 18, p. 15.

- 1959 "MAPA ECOLÓGICO DE PANAMÁ"
 in color 1:1,000,000

LEGEND

- | | |
|-----------------------------------|--|
| 1. Bosque húmedo subtropical | 5. Bosque seco tropical |
| 2. Bosque muy húmedo subtropical | 6. Bosque seco tropical (transición) |
| 3. Bosque muy húmedo montano bajo | 7. Bosque húmedo tropical |
| 4. Bosque muy húmedo montano | 8. Bosque húmedo tropical (transición) |

HOLDRIDGE, LESLIE RENSSLAER and GERARDO BUDOWSKI

1959 In Hunter, J. Robert, *Límites climáticos del cacao, café y hule*. Turrialba, Costa Rica, Instituto Interamericano de Ciencias Agrícolas, Materiales de enseñanza de café y cacao no. 16-E, 2 sheets.

BAHAMA ISLANDS

[1948] "VEGETATION MAP OF THE BIMINI ISLAND GROUP, BAHAMAS, B. W. I."
black and white [1:48,530]

LEGEND

- | | |
|-------------------------------|---------------------------------|
| 1. Mangrove | 6. <i>Salicornia</i> tide flats |
| 2. Blackland | 7. <i>Uniola</i> strand |
| 3. Whiteland | 8. Coastal rock |
| 4. Sand shrub | 9. Incipient blackland |
| 5. <i>Coccothrinax</i> -shrub | 10. Cultivated area |

HOWARD, RICHARD A.

1950 "Vegetation of the Bimini Island Group, Bahamas, B. W. I."
Ecological Monographs, vol. 20, p. 320.

CUBA

[1908] "VEGETATION MAP OF CUBA"

black and white

1:2,000,000

LEGEND

- | | |
|-------------------------------|--|
| 1. Hardwood forests, 1906-07 | 7. Former hardwood forests |
| 2. Pine forests | 8. Former parklands |
| 3. Parklands, 1906-07 | 9. Cultivated lands or original
vegetation unclassified |
| 4. Sabanas | 10. Strand and littoral vegetation |
| 5. Cacti-thornshrub formation | |
| 6. Swamps | |

Scattered pine trees shown by overprinted symbol

WAIBEL, LEO

1943 "Place names as an aid in the reconstruction of the original vegetation of Cuba." *Geographical Review*, vol. 33, facing p. 394. Reprinted, 1946 [1:5,000,000], in Marreno, Levi, *Elementos de geografía de Cuba*. Havana, Editorial Minerva, 2nd ed., pp. 158-159. (Based on "Military map of Cuba 1906-1908," War Dept. of Cuba, 1911, and Wharton, "Forest regions of Cuba," 1919.)

[1941] "[THE VEGETATION OF CUBA]"

black and white

[1:9,200,000]

LEGEND

- | | |
|---------------------------------------|--------------------|
| 1. Serpentine savanna and
lowlands | 5. Swamp |
| 2. Siliceous savanna | 6. Coastal types |
| 3. Tropical forest | a. Halophytic |
| 4. Blue-limestone | b. Semi-xerophytic |
| | c. Xerophytic |

CARABIA, J. P.

1941 "A brief review of the Cuban flora." *Chronica Bot.*, vol. 6, p. 227. Reprinted, 1945 in his "A brief review of the Cuban flora." In Verdoorn, Frans (ed.), *Plants and plant science in Latin America*. Waltham, Massachusetts, Chronica Botanica Co., p. 69.

[1949] "TIPOS DE PAISAJES"

in color

[1:7,000,000]

LEGEND

- | | |
|---|--|
| 1. Sabanas arenosas (sandy
savannas) | 4. Sabanas arcillosas (fertile clay
savannas) |
| 2. Mogotes (mogotes) | 5. Manglares (mangrove) |
| 3. Pinares (pinelands) | 6. Montes (forests) |

7. Sabanas serpentinosas
(serpentine savannas)

8. Vegetación xerófila (xerophilous
vegetation)

9. [Campos cultivados]

CANET, ALVAREZ GERADO and ERWIN RAISZ

1949 "Mapa de los Paisajes de Cuba." *In their Atlas de Cuba*. Cambridge, Massachusetts, Harvard University Press, facing p. 64, inset.

[1954] "FORESTS OF THE ORIENTE REGION"

blue, black and white

[1:769,000]

LEGEND

1. Coastal hardwood stands, on limestone
2. Old growth hardwood stands, on igneous rock
3. Primarily hardwood stands, residual and high-graded
4. Old growth pine and hardwood stands
5. Cut-over pine stands, on lateritic soil

SMITH, EARL E.

1954 *The forests of Cuba*. Maria Moors Cabot Found., in cooperation with Harvard Forest, Petersham, Massachusetts, and Atkins Garden and Res. Lab., Cienfuegos, Cuba, Publ. no. 2, facing p. 22.

[1954] "FORESTS OF THE PINAR DEL RIO REGION"

blue, black and white

[1:769,000]

LEGEND

1. Coastal hardwood stands, on limestone
2. Hardwood stands, residual and high-graded, on limestone
3. Cut-over pine stands, on shale and interbedded sandstone
4. Cut-over pine stands, on lateritic soil
5. Limestone mogotes

SMITH, EARL E.

1954 *The forests of Cuba*. Maria Moors Cabot Found., in cooperation with Harvard Forest, Petersham, Massachusetts, and Atkins Garden and Res. Lab., Cienfuegos, Cuba, Publ. no. 2, facing p. 62.

1956 "VEGETATIONSKARTE DES ZENTRALEN TEILES DER SIERRA DE LOS ORGANOS"

black and white

[1:96,910]

LEGEND

1. Xerophytische Mogotenvegetation (mit *Bombax emarginatum*, *Spathelia brittonii* und *Gaussia princeps*)
2. Weniger xerophytische Mogotenvegetation wie 1 doch mit *Ficus* spp.
3. Kiefern-Eichenwald (mit *Quercus virginiana*, *Pinus tropicalis*, *Pinus caribaea* und Malatomataceen-Strauchschicht)
4. Kulturland
5. Bachbegleitender Eugenia-Jambos-Wald

LÖTSCHERT, W.

1956 *In* Lehmann, H. K. Krömmelbein, and W. Lötschert, "Karst-morphologische, geologische und botanische Studien in der Sierra de los Organos auf Cuba." *Erdkunde*, vol. 10, p. 201.

HISPANIOLA

1928 "LA VÉGÉTATION D'HAÏTI [HISPANIOLA]"
black and white 1:3,000,000

LEGEND

- | | |
|---|--|
| 1. Pins | 5. Savane |
| 2. Forêt tropicale | 6. Brousse épineuse avec cactus
passant à la savane |
| 3. Forêt mixte avec arbres à feuilles
caduques en saison sèche | 7. Mangrove |
| 4. Forêt de mousson | |

SORRE, MAX

1928 "Mexique, Amérique centrale." *Géographie universelle*, Tome
14, p. 175.

[1945] "FOREST TYPES OF HISPANIOLA (ORIGINAL)"
black and white [1:2,500,000]

LEGEND

- | | |
|-----------------|---------------|
| 1. Pine forest | 3. Dry forest |
| 2. Moist forest | |

HOLDRIDGE, LESLIE RENSSLAER

1945 "A brief sketch of the flora of Hispaniola." *In* Verdoorn, F.
(ed.), *Plants and plant science in Latin America*. Waltham, Massa-
chusetts, Chronica Botanica Co., p. 77.

DOMINICAN REPUBLIC

[1922] "DOMINICAN REPUBLIC, FOREST TYPES"

black and white

1:2,750,000

LEGEND

- | | |
|------------------------------|-----------------|
| 1. Littoral woodland | 5. Pine forest |
| 2. Evergreen hardwood | 6. Thorn forest |
| 3. Partly evergreen hardwood | 7. Savanna |
| 4. Mostly deciduous forest | |

DURLAND, WILLIAM DAVIES

1922 "The forests of the Dominican Republic." *Geographical Review*, vol. 12, p. 209. Reprinted, 1926 in Noble, G. Kingsley, "Haiti and Santo Domingo." In Shelford, Victor E. (ed.), *Naturalist's guide to the Americas*. Baltimore, Williams & Wilkins Co., facing p. 695.

1936 "CARTA GEOBOTANICA DELLA REPUBBLICA DOMINICANA"

in color

1:1,100,000

LEGEND

- | | |
|----------------------------------|--|
| 1. Foresta iperxerofitica | 9. Foresta di mangrovie |
| 2. Foresta subxerofitica | 10. Foresta montane |
| 3. Savana costiera | 11. Pineto della foresta montana e come associazione subseriale |
| 4. Savana úmida e prateria | 12. Vegetazione delle alte cime montane (savana montana e pineto con elementi floristici delle regione alpino-boreali) |
| 5. Foresta mesofitica | |
| 6. Foresta udica su suolo neutro | |
| 7. Foresta udica su suolo acido | |
| 8. Vegetazione di laguna | |

CIFERRI, R.

1936 *Studio geobotanico dell'Isola Hispaniola*. Pavia, Istituto botanico dell'università.

HAITI

1937 "DIE NATÜRLICHEN PFLANZENVEREINE"

black and white

1:2,200,000

LEGEND

- | | |
|---|-----------------------------|
| 1. Mangroven | 6. Baumsteppe |
| 2. Salzstrauchvegetation | 7. Parklandschaft |
| 3. Dornbusch mit Sukkulente | 8. Buschwald |
| 4. Schirmakazien-Kakteen-
Trockengehölze | 9. Lichter Bergwald |
| 5. Steppe | 10. Regenwald und Nebelwald |
| | 11. Kiefern |

KOCH, WILHELM

1937 *Beiträge zur Landschaftskunde und zur Geschichte der Landschaftsumwandlungen der Republik Haiti*. Hamburg. Hansische Universität, Dissertation, p. 91.

J A M A I C A

1936 "JAMAICA"
black and white 1:3,000,000

LEGEND

- | | |
|--------------------------|---|
| 1. Tropischer Regenwald | 6. Savannen mit Grasfluren und Waldinseln |
| 2. Nebelwald | 7. Lichter Regenwald |
| 3. Hartlaubwald | 8. Sumpf und Mangrovenwald |
| 4. Laubwald | 9. Kalk- und Sandstrandpflanzenvereine |
| 5. Niedriger Trockenwald | |

WÜNSCHE, B.

1936 *Die wirtschaftliche Entwicklung und Gliederung der Insel Jamaica*. Hamburg, Universität, Dissertation.

[1939] "[COASTAL AREA BETWEEN OLD HARBOUR AND KINGSTON]"
black and white [1:253,000]

LEGEND

1. Mangrove swamp

CHAPMAN, V. J.

1940 "The botany of the Jamaica shoreline." *In Steers, J. A., and others, "Sand cays and mangroves of Jamaica." Geographical Journal*, vol. 96 [should be facing p. 328], inserted facing p. 376.

[1939] "THE PALISADOES"
black and white [1:67,400]

LEGEND

- | | |
|---------------|---------------|
| 1. Sand | 4. Dune ridge |
| 2. Shingle | 5. Mangroves |
| 3. Beach rock | |

CHAPMAN, V. J.

1940 "The botany of the Jamaica shoreline." *In Steers, J. A., and others, "Sand cays and mangroves of Jamaica." Geographical Journal*, vol. 96 [should be following p. 328], inserted facing p. 377.

[1939] "THE PALISADOES"
black and white [1:54,700]

LEGEND

1. Shingle
2. Beach rock

3. Dry land
 - a. Recent accretion of bare sand and small shingle
 - b. Beach 50-100 yards wide of sand and small shingle. Inside low dunes densely covered with cactus, acacia etc. Along entire inner edge this passes into mangrove swamp
 - c. Beach 100 yds. wide of sand and small shingle. Remainder densely covered with cactus, acacia etc., merging inside into confused areas of sand dune, open water and mangrove swamp
 - d. Low area of sand with large boulders growing more frequent at east end. West end rises and forms dunes up to 20 ft. high. Only vegetation scattered grass, *Sesuvium* etc.

4. Mangroves

STEERS, J. A.

1940 "The Cays and the Palisadoes, Port Royal, Jamaica." *Geographical Review*, vol. 30, p. 288-289.

[1939] "S. E. MORANT CAY"

black and white

[1:5,400]

LEGEND

- | | |
|---------------|--------------------|
| 1. Sand | 4. <i>Sesuvium</i> |
| 2. Shingle | 5. Grass |
| 3. Beach rock | |

CHAPMAN, V. J.

1940 "The botany of the Jamaica shoreline." In Steers, J. A., and others, "Sand cays and mangroves of Jamaica." *Geographical Journal*, vol. 96 [should be following p. 328], inserted facing p. 377.

1939 "SOUTH EAST CAY, PORT ROYAL"

black and white

[1:3,200]

LEGEND

- | | |
|----------------------|--|
| 1. Shingle | 5. Flora mainly <i>Sesuvium</i> |
| 2. Sand beach | 6. Trees and brushwood to a height of 20 ft. |
| 3. <i>Rhizophora</i> | |
| 4. <i>Avicennia</i> | |

STEERS, J. A.

1940 "The Cays and the Palisadoes, Port Royal, Jamaica." *Geographical Review*, vol. 30, p. 284.

1939 "LIME CAY, PORT ROYAL"

black and white

[1:3,000]

LEGEND

- | | |
|----------------------|--|
| 1. Shingle | 6. Flora mainly <i>Sesuvium</i> |
| 2. Sand beach | 7. Flora mainly grasses |
| 3. Beach rock | 8. Trees and brushwood to a height of 30 ft. |
| 4. <i>Rhizophora</i> | 9. Trees |
| 5. <i>Avicennia</i> | |

STEERS, J. A.

1940 "The Cays and the Palisadoes, Port Royal, Jamaica." *Geographical Review*, vol. 30, p. 284.

[1939] "MIDDLE CAY, MORANT"
 black and white [1:2,400]

LEGEND

- | | |
|-----------------------------------|----------------------------------|
| 1. Promenade | 5. <i>Phloxerus vermicularis</i> |
| 2. Sand | 6. <i>Ipomoea pes-caprae</i> |
| 3. <i>Sesuvium portulacastrum</i> | 7. <i>Boerhavia</i> sp. |
| 4. <i>Sporobolus virginicus</i> | |

Distribution of several other species indicated by overprinted symbols.

CHAPMAN, V. J.

1940 "The botany of the Jamaica shoreline." *In Steers, J. A., and others, "Sand cays and mangroves of Jamaica." Geographical Journal, vol. 96, p. 315.*

[1939] "PORT ROYAL, DRUNKENMAN'S CAY"
 black and white [1:2,100]

LEGEND

- | | |
|--------------------|-------------------|
| 1. Sand | 4. Low vegetation |
| 2. Mangroves | 5. Shingle |
| 3. <i>Sesuvium</i> | |

CHAPMAN, V. J.

1940 "The botany of the Jamaica shoreline." *In Steers, J. A., and others, "Sand cays and mangroves of Jamaica." Geographical Journal, vol. 96 [should be following p. 328], inserted facing p. 377.*

[1939] "PORTLAND BIGHT, LITTLE PELICAN ISLAND"
 black and white [1:1,900]

LEGEND

- | | |
|---------------|-----------------------------------|
| 1. Sand | 3. <i>Sesuvium</i> |
| 2. Beach rock | 4. Bushwood to a height of 15 ft. |

CHAPMAN, V. J.

1940 "The botany of the Jamaica shoreline." *In Steers, J. A., and others, "Sand cays and mangroves of Jamaica." Geographical Journal, vol. 96 [should be facing p. 328], inserted facing p. 376.*

1939, 1952 "VEGETATION MAPS OF THE PORT ROYAL CAYS [MAIDEN CAY, DRUNKENMANS CAY, SOUTH-EAST CAY, AND GUN CAY] IN 1939 (AFTER CHAPMAN) AND 1952"
 black and white

	1939	1952
Maiden Cay	incalculable	1:770
Drunkenmans Cay	1:3,720	1:3,220
South-East Cay	incalculable	incalculable
Gun Cay	incalculable	incalculable

LEGEND

- | | |
|-----------------------------------|--------------------------------------|
| 1. Boulders | 11. <i>Batis maritima</i> |
| 2. Sand | 12. <i>Paspalum vaginatum</i> |
| 3. <i>Sesuvium portulacastrum</i> | 13. <i>Conocarpus erecta</i> |
| 4. <i>Sporobolus virginicus</i> | 14. <i>Cañile lanceolata</i> |
| 5. <i>Avicennia nitida</i> | 15. <i>Euphorbia buxifolia</i> |
| 6. <i>Philoxerus vermicularis</i> | 16. <i>Laguncularia racemosa</i> |
| 7. <i>Thespesia populnea</i> | 17. <i>Tournefortia gnaphaloides</i> |
| 8. <i>Rhizophora mangle</i> | 18. <i>Tribulus cistoides</i> |
| 9. <i>Canavalia obtusifolia</i> | 19. <i>Boerhavia</i> sp. |
| 10. <i>Ipomoea pes-caprae</i> | 20. <i>Turnera ulmifolia</i> |

ASPREY, G. F. and R. G. ROBBINS

1953 "The vegetation of Jamaica." *Ecological Monographs*, vol. 23, p. 377.

[1952] "LIME CAY"

black and white

[incalculable]

LEGEND

- | | |
|----------------------|-----------------------|
| 1. Sand | 4. Strand communities |
| 2. Reef | 5. Cactus-thorn scrub |
| 3. Mangrove woodland | |

ASPREY, G. F. and R. G. ROBBINS

1953 "The vegetation of Jamaica." *Ecological Monographs*, vol. 23, p. 376.

[1953] "VEGETATION MAP OF JAMAICA"

black and white

[1:1,700,000]

LEGEND

- | | |
|------------------------------|---|
| 1. Lower montane rain forest | 6. Dry limestone scrub forest |
| 2. Mist forest | 7. Mangrove woodland |
| 3. Elfin woodland | 8. Marsh formations |
| 4. Wet limestone forest | 9. Cultivated pasture & second growth scrub |
| 5. Moist fasciation | |

ASPREY, G. F. and R. G. ROBBINS

1953 "The vegetation of Jamaica." *Ecological Monographs*, vol. 23, p. 361.

[1953] "VEGETATIONAL ZONATION ON SAND SPIT"

black and white

[incalculable]

LEGEND

- | | |
|------------|-----------------------|
| 1. Pioneer | 4. Cactus thorn scrub |
| 2. Dune | 5. Littoral woodland |
| 3. Scrub | 6. Mangrove |

ASPREY, G. F. and R. G. ROBBINS

1953 "The vegetation of Jamaica." *Ecological Monographs*, vol. 23, p. 375.

LESSER ANTILLES

1946 "VEGETATION MAP OF ANTIGUA, LEEWARD ISLANDS"
black and white 1:250,000

LEGEND

- | | |
|-----------------------------|---------------------|
| 1. Savanna and grazing land | 4. Palm brake |
| 2. Dry scrub-woodlands | 5. Secondary forest |
| 3. Rain forest | 6. Dune vegetation |

BEARD, J. S.

1949 *The natural vegetation of the Windward and Leeward Islands.*
Oxford Forestry Memoirs, no. 21, 1948, Oxford, The Clarendon Press.
p. 159.

1946 "VEGETATION MAP OF BARBUDA, LEEWARD ISLANDS"
black and white 1:250,000

LEGEND

- | | |
|-----------------------------|---------------------|
| 1. Savanna and grazing land | 4. Palm brake |
| 2. Dry scrub-woodlands | 5. Secondary forest |
| 3. Rain forest | 6. Dune vegetation |

BEARD, J. S.

1949 *The natural vegetation of the Windward and Leeward Islands.*
Oxford Forestry Memoirs, no. 21, 1948, Oxford, The Clarendon Press.
p. 159.

1930 "LAND UTILIZATION IN DOMINICA"
black and white [1:550,000]

LEGEND

1. Forests

Also indicates agricultural land-use types

HARRISON, LUCIA C.

1935 "Dominica: a wet tropical human habitat." *Economic Geography*, vol. 11, p. 69.

[1941] "VEGETATION OF DOMINICA"
black and white [1:637,000]

LEGEND

- | | |
|-----------------------|------------------------|
| 1. Coastal vegetation | 4. Mountain rainforest |
| 2. Xerophytic | 5. Mossy forest |
| 3. Semi-xerophytic | |

LESSER ANTILLES

HODGE, W. H.

1941 "The vegetation of the Lesser Antilles, a brief review." *Chronica Bot.*, vol. 6, p. 403.

[1943] "VEGETATION ZONES [OF DOMINICA]"

black and white

1:500,000

LEGEND

1. Xerophytic zone
2. Transitional belt

3. Rain forest
4. Mossy or elfin forest

HODGE, W. H.

1943 "The vegetation of Dominica." *Geographical Review*, vol. 33, p. 352.

1946 "VEGETATION MAP OF DOMINICA"

black and white

[1:247,000]

LEGEND

1. Savanna & grazing land
2. Dry scrub-woodlands
3. Rain forest
4. Lower montane rain forest

5. Montane thicket
6. Palm brake
7. Elfin woodland
8. Secondary forest

BEARD, J. S.

1949 *The natural vegetation of the Windward and Leeward Islands.* Oxford Forestry Mem., no. 21 (1948), p. 109.

1946 "VEGETATION MAP OF GRENADA"

black and white

[1:247,000]

LEGEND

1. Savanna & grazing land
2. Dry scrub-woodlands
3. Rain forest
4. Montane thicket

5. Palm brake
6. Elfin woodland
7. Secondary forest

BEARD, J. S.

1949 *The natural vegetation of the Windward and Leeward Islands.* Oxford Forestry Mem., no. 21 (1948), p. 137.

[1935] "CARTE BOTANIQUE DE LA GUADELOUPE ET DES DÉPENDENCES PROCHES"
[Area: Guadeloupe, Grande Terre, Désirade, Iles de la Petite Terre, Les Saintes, and Marie Galante]

black and white

[1:307,000]

LEGEND

1. Littoral au vent
2. Littoral sous le vent
3. Mangrove
4. Cultures diverses
5. Cannes et mornes calcaires
6. Mornes basaltiques

7. Forêt secondaire
8. Forêt primaire dégradée
9. Forêt primaire
10. Forêt de transition
11. Savanne et strate muscinale

STEHLÉ, HENRI

1936 *Essai d'écologie et de géographie botanique*. Basse-Terre, Guadeloupe, Gouvernement de la Guadeloupe et dépendances, Flore de la Guadeloupe et dépendances, vol. 1, inserted at back.

- 1961 "LA CARTE DES TYPES DE VÉGÉTATION DE LA GUADELOUPE"
black and white 1:350,000

LEGEND

1. Mangrove, arrière-mangrove et marais littoraux
2. Végétation littorale xérophile des îles calcaires
3. Forêt xérophile des îles calcaires, halliers et brousses sèches
4. Forêt xérophile sur terrains volcaniques
5. Forêt mésophile
6. Forêt hygrophile
7. Forêt rabourgie et "savanes" d'altitude
8. Prairies marécageuses et tourbières des haut sommets
9. Principales zones cultivées

LASSERRE, GUY

1961 *La Guadeloupe*. Bordeaux, Union Française d'Impression. pp. 232-233.

- [1945] "ESQUISSE D'UNE CARTE BOTANIQUE DE LA MARTINIQUE"
black and white [1:585,000]

LEGEND

- | | |
|-------------------------------|------------------------|
| 1. Forêt de mangrove | 4. Forêt mésophytique |
| 2. Cultures de cannes à sucre | 5. Forêt hygrophytique |
| 3. Forêt xérophytique | 6. Forêt altitudinale |

STEHLÉ, HENRI

1945 "Les conditions écologiques, la végétation et les ressources agricoles de l' Archipel des Petites Antilles." *In* Verdoorn, F. (ed.), *Plants and plant science in Latin America*. Waltham, Massachusetts, Chronica Botanica Co., p. 89.

- 1946 "VEGETATION DISTRICTS IN MARTINIQUE"
black and white 1:300,000

LEGEND

- | | |
|---------------------------|---|
| 1. Mangrove | 4. Mesophytic forest |
| 2. Sugar cane plantations | 5. Hygrophytic forest, altitudinal forest |
| 3. Xerophytic forest | |

STEHLÉ, HENRI

1946 "Forest types of the Caribbean Islands." *Caribbean Forester*, vol. 6, suppl., Rio Piedras, Puerto Rico, Forest Service. (Translation from the French.)

- 1946 "VEGETATION MAP OF MONTSERRAT, LEEWARD ISLANDS"
black and white 1:250,000

LEGEND

- | | |
|-----------------------------|---------------------|
| 1. Savanna and grazing land | 4. Palm brake |
| 2. Dry scrub-woodlands | 5. Secondary forest |
| 3. Rain forest | 6. Dune vegetation |

BEARD, J. S.

1949 *The natural vegetation of the Windward and Leeward Islands.*
Oxford Forestry Memoirs, no. 21 (1948). p. 159.

- 1946 "VEGETATION MAP OF ST. KITTS AND NEVIS"
black and white [1:247,000]

LEGEND

- | | |
|-----------------------------|---------------------|
| 1. Savanna and grazing land | 4. Palm brake |
| 2. Dry scrub-woodlands | 5. Elfin woodland |
| 3. Rain forest | 6. Secondary forest |

BEARD, J. S.

1949 *The natural vegetation of the Windward and Leeward Islands.*
Oxford Forestry Mem., no. 21 (1948), p. 96.

- 1946 "VEGETATION MAP OF ST. LUCIA"
black and white [1:244,000]

LEGEND

- | | |
|------------------------------|------------------------|
| 1. Savanna & grazing land | 5. Dry scrub-woodlands |
| 2. Rain forest | 6. Elfin woodland |
| 3. Lower montane rain forest | 7. Secondary forest |
| 4. Montane thicket | |

BEARD, J. S.

1949 *The natural vegetation of the Windward and Leeward Islands.*
Oxford Forestry Mem., no. 21 (1948), p. 123.

- [1946] "VEGETATION MAP OF ST. VINCENT"
black and white [1:247,000]

LEGEND

- | | |
|------------------------|---------------------|
| 1. Dry scrub-woodlands | 4. Elfin woodland |
| 2. Rain forest | 5. Secondary forest |
| 3. Palm brake | |

BEARD, J. S.

1949 *The natural vegetation of the Windward and Leeward Islands.*
Oxford Forestry Mem., no. 21 (1948), p. 137.

- [1956] "LAND USE, BRITISH VIRGIN ISLANDS [ANEGADA, TORTOLA AND ADJACENT
ISLANDS]"
black and white [1:272,000]

LEGEND

- | | |
|---|-------------------------|
| 1. Pasture | 4. Rain forest |
| 2. Coconut | 5. Dry woodland |
| 3. Rotation crops: garden, pasture,
bush | 6. Thorn bush and scrub |
| | 7. Boulder country |

AUGELLI, JOHN P.

1956 "The British Virgin Islands: A West Indian anomaly." *Geographical Review*, vol. 46, p. 48.1930 "VEGETATIONSKARTE VON ST. CROIX (NACH BARON VON EGGERS, 1875)"
black and white 1:120,000

LEGEND

- | | |
|--------------------|----------------------------------|
| 1. Felsküstenflora | 5. Krotonbusch |
| 2. Sandküstenflora | 6. <i>Eriodendron</i> Vegetation |
| 3. Mangrove | 7. Zucker- und Grasland |
| 4. Übergangswald | |

ROSE, F.

1930 *Landeskundliche Untersuchung der Jungfern Inseln*. Diss. Leipzig, Karte II.[1933] "VEGETATION AND LAND UTILIZATION OF ST. CROIX (VIRGIN ISLANDS)"
black and white [1:392,000]

LEGEND

- | | |
|----------------------------|------------------|
| 1. Thorn woodland | 5. Estate cane |
| 2. Thorn woodland pasture | 6. Squatter cane |
| 3. Hurricane grass pasture | 7. Forest |
| 4. Guinea grass pasture | 8. Urban |

SHAW, EARL B.

1933 "St. Croix: a marginal sugar-producing island." *Geographical Review*, vol. 23, p. 419.[1935] "VEGETATION AND LAND UTILIZATION OF ST. THOMAS (VIRGIN ISLANDS)"
black and white [1:217,000]

LEGEND

- | | |
|-------------------------|-------------|
| 1. Bush | 4. Coconuts |
| 2. Guinea grass pasture | 5. Urban |
| 3. Mangrove swamp | |

SHAW, EARL B.

1935 "Population adjustments in our Virgin Islands." *Economic Geography*, vol. 11, p. 272.

PUERTO RICO

[“Pre-Columbian,” ca. 1500] “FOREST CLASSIFICATION BASED ON MAP OF MEAN ANNUAL RAINFALL DISTRIBUTION FOR 1899-1909 ACCORDING TO U. S. WEATHER BUREAU”

black and white

[1:1,850,000]

LEGEND

- | | |
|------------------------|----------------------------|
| 1. Littoral woodlands | 2. Moist deciduous forests |
| a. Mangrove | 3. Tropical rain forests |
| b. Dry tidal woodlands | 4. Dry deciduous forests |

MURPHY, LOUIS S.

1916 *Forests of Porto Rico; past, present, and future, and their physical and economic environment.* U. S. Dept. Agr., Bull. no. 354, p. 22.

1500 “LAND USE ABOUT 1500, SOUTHEASTERN PUERTO RICO”

black and white

[1:300,000]

LEGEND

- | | |
|---------------------------------|--------------------|
| A. Crops | 4. Rain forest |
| 1. Area of shifting agriculture | 5. Savannah forest |
| B. Potential pasture | 6. Mangrove forest |
| 2. Natural grassland | D. Beach |
| 3. Salty scrub | 7. Sandy beach |
| C. Forests | |

BEISHLAG, GEORGE

1955 “Trends in land use in southeastern Puerto Rico.” *In* Jones, Clarence F., and Rafael Picó (eds.), *Symposium on the geography of Puerto Rico*, Río Piedras, University of Puerto Rico, p. 274.

1776 “LAND USE 1776, SOUTHEASTERN PUERTO RICO”

black and white

[1:300,000]

LEGEND

- | | |
|--|--------------------|
| A. Crops | 2. Rain forest |
| [Indicates distribution of four types] | 3. Savanna forest |
| B. Pasture | 4. Mangrove forest |
| 1. Natural pasture | D. Beach |
| C. Forest | 5. Sandy beach |

BEISHLAG, GEORGE

1955 “Trends in land use in southeastern Puerto Rico.” *In* Jones, Clarence F., and Rafael Picó (eds.), *Symposium on the geography of Puerto Rico*, Río Piedras, University of Puerto Rico, p. 275.

1897 "LAND USE 1897, SOUTHEASTERN PUERTO RICO"
 black and white [1:300,000]

LEGEND

- | | |
|---|--|
| <p>A. Crops
 [Indicates distribution of four types]</p> <p>B. Pasture
 1. Pasture and brush pasture</p> | <p>C. Forests
 2. Rain forest and waste land
 3. Savanna forest and waste land
 4. Mangrove forest</p> |
|---|--|

BEISHLAG, GEORGE

1955 "Trends in land use in southeastern Puerto Rico." *In* Jones, Clarence F., and Rafael Picó (eds.), *Symposium on the geography of Puerto Rico*, Río Piedras, University of Puerto Rico, p. 279.

[1930] "FOREST REGIONS OF PORTO RICO"
 black and white [1:5,800,000]

LEGEND

- | | |
|----------------------|----------------------|
| <p>1. Wet forest</p> | <p>2. Dry forest</p> |
|----------------------|----------------------|

UNITED STATES. *Forest Service*

1930 *In* Graves, Henry S., "Forests." *In* Havemeyer, Loomis (ed.), *Conservation of our natural resources, based on Van Hise's, "The conservation of natural resources in the United States."* New York, Macmillan Co., facing p. 230, inset.

[1936] "THE NATURAL FOREST REGIONS OF PUERTO RICO . . ."
 black and white [1:2,300,000]

LEGEND

- | | |
|---|----------------------|
| <p>1. Mangrove swamp
 2. Wet forest</p> | <p>3. Dry forest</p> |
|---|----------------------|

MATTOON, WILBUR R.

1936 *Forest trees and forest regions of the United States*. U. S. Dept. Agr., Misc. Publ. no. 217, p. 49. Reprinted as inset map, 1948 green and white [1:3,100,000], *Forest regions of the United States*. Separately published, U. S. Govt. Printing Office, map no. 0-807577, 1 p.

[1945] "FOREST TYPES OF PUERTO RICO"
 black and white [1:2,100,000]

LEGEND

- | | |
|--|---|
| <p>1. Wet high mountain
 2. Moist mountain
 3. Moist lowland
 4. Moist limestone</p> | <p>5. Serpentine
 6. Mangrove swamp
 7. Dry lowland</p> |
|--|---|

HOLDRIDGE, LESLIE RENSSLAER

1945 "A brief sketch of the Puerto Rican flora." *In* Verdoorn, F. (ed.), *Plants and plant science in Latin America*. Waltham, Massachusetts, Chronica Botanica Co., p. 81.

PUERTO RICO

1948 "PUERTO RICO"
green, black, and white [1:3,000,000]

LEGEND

- | | |
|-------------------|---------------|
| 1. Mangrove swamp | 3. Dry forest |
| 2. Wet forest | |

UNITED STATES. *Forest Service*

1948 *Forest regions of the United States* [Map]. Washington, U. S. Forest Service.

1951 "LAND USE 1951, SOUTHEASTERN PUERTO RICO"
black and white [1:300,000]

LEGEND

- | | |
|--|--------------------|
| A. Crops
[Indicates distribution of five types] | C. Forests |
| B. Pasture | 2. Rain forest |
| 1. Pasture, brush pasture, and waste land | 3. Savanna forest |
| | 4. Mangrove forest |

BEISHLAG, GEORGE

1955 "Trends in land use in southeastern Puerto Rico." In Jones, Clarence F., and Rafael Picó (eds.), *Symposium on the geography of Puerto Rico*, Río Piedras, University of Puerto Rico, p. 285.

[1952] "LAND USE IN A TYPICAL MUNICIPIO (SAN LORENZO)"
black and white [1:108,600]

LEGEND

- | | |
|-----------|----------|
| 1. Forest | 2. Monte |
|-----------|----------|

Several types of agricultural land use also are indicated

AUGELLI, JOHN P.

1953 "Sugar cane and tobacco: A comparison of agricultural types in the highlands of eastern Puerto Rico." *Economic Geography*, vol. 29, p. 65.

[1958] "FOREST LAND AREAS OF PUERTO RICO"
black and white [1:850,000]

LEGEND

1. Mangroves

Seven other areas mapped are geological, soil, or climatic regions

UNITED STATES. *Forest Service. Tropical Forest Research Center*

1958 "The status of forestry and forest research in Puerto Rico and the Virgin Islands." *Caribbean Forester*, vol. 19, p. 4.

TRINIDAD and TOBAGO

- [1924] "FOREST MAP OF TRINIDAD"
 green, black, and white 1:300,000

LEGEND

1. Approximate area under mixed forest
2. Approximate area under mora forest
3. [Unforested]

ANON.

1925 *Trinidad and Tobago, Conservator of Forests: Administration report for the year 1924, laid before the Legislative Council on the 27th March, 1925.* Council Paper no. 27 of 1925, inserted after title page.

- [1924] "FOREST MAP OF TOBAGO"
 green, black, and white 1:150,000

LEGEND

1. Approximate area under forest
2. [Unforested]

ANON.

1925 *Trinidad and Tobago, Conservator of Forests: Administration report for the year 1924, laid before the Legislative Council on the 27th March, 1925.* Council Paper no. 27 of 1925, inserted after title page.

- 1938 "NATURAL VEGETATION OF CROWN LANDS [TRINIDAD]"
 in color [1:150,000]

LEGEND

- | | |
|--|--|
| <p>A. Seasonal forests</p> <ol style="list-style-type: none"> I. Evergreen seasonal forest <ol style="list-style-type: none"> a. Crappo-guatecare <ol style="list-style-type: none"> 1. Mora type 2. Wild debasse type 3. Fineleaf-cocorite type 4. Blackheart-cocorite type 5. Fineleaf-carat type II. Semi-evergreen seasonal forest | <ol style="list-style-type: none"> a. Purpleheart <ol style="list-style-type: none"> 6. Incense-poui type 7. Bois lissette type b. Acurel-moussara <ol style="list-style-type: none"> 8. Jiggerwood type 9. Gommier type 10. Figuier type III. Deciduous seasonal forest <ol style="list-style-type: none"> a. Naked Indian-savonette <ol style="list-style-type: none"> 11. Saltfishwood type 12. Incense-poui ecotone |
|--|--|

- B. Dry evergreen forests
 - I. Littoral woodland
 - 13. Sea-grape-manchineel
 - 14. Palmiste-balata
- C. Montane forest
 - I. Lower Montane rain forest
 - a. Serrette-wild debusse
 - 15. Bois grid type
 - II. Montane rain forest
 - 16. Bois bande-mountain guatecare
 - III. Elfin woodland
 - 17. Mountain mangrove
- D. Swamp communities
 - I. Swamp forest
 - 18. Bloodwood
 - II. Palm swamp
 - 19. Palmiste
 - III. Herbaceous swamp
 - 20. Mota grass-white roseau-elephant's ear
- 21. Water bamboo
- 22. Sedge
- 23. Cascadoux grass
- 24. *Acrostichum*
- IV. Mangrove woodland
 - 25. Mangrove
- E. Marsh (seasonal swamp) communities
 - I. Marsh forest
 - a. Timite-palma real-manac
 - 26. Galba type
 - II. Palm marsh (not mapped)
 - III. Savanna
 - 27. Savanna serrette-rough leaf-fat pork
- F. Intermediate formations
 - I. Seasonal montane forest
 - 28. Pois doux-redwood
- G. [Other types]
 - 29. Timber plantations
 - 30. Second growth and clearings

BEARD, J. S.

1946 *The natural vegetation of Trinidad*. Oxford Forestry Mem. no. 20 (1945), preceding title page.

[1942] "[DISTRIBUTION OF FOREST TYPES ON THE MAIN RIDGE], TOBAGO, B. W. I." black and white [1:76,000]

LEGEND

- 1. Lowland rain forest
- 2. Lower montane rain forest
- 3. Xerophytic rain forest

BEARD, J. S.

1944 "The natural vegetation of the island of Tobago, British West Indies." *Ecological Monographs*, vol. 14, p. 140.

[1945] "VEGETATION OF TRINIDAD AND TOBAGO" black and white 1:930,000

LEGEND

- 1. Montane rain forest
- 2. Lower montane evergreen rain forest
- 3. Semi-evergreen [forest]
- 4. Deciduous [forest]
- 5. Mora
- 6. Marsh
- 7. Mangrove
- 8. Evergreen semi-monsoon forest
- 9. Herbaceous swamp
- 10. Mainly cultivated lands

BEARD, J. S.

1945 "A brief review of the vegetation of Trinidad and Tobago." In Verdoorn, F. (ed.), *Plants and plant science in Latin America*. Waltham, Massachusetts, Chronica Botanica Co., p. 101.

[1952] "ARIMA VALLEY, TO SHOW GENERAL BIOTIC ZONES"
 black and white [1:55,900]

LEGEND

- | | |
|------------------------------|-----------------------------|
| 1. Elfin woodland | 5. Secondary forest & cocoa |
| 2. Montane rain forest | 6. Secondary savanna |
| 3. Lower montane rain forest | 7. Cultivated land |
| 4. Deciduous seasonal forest | |

BEEBE, WILLIAM

1952 "Introduction to the ecology of the Arima Valley, Trinidad, B. W. I." *Zoologica*, vol. 37, p. 158.

[1958] "VEGETATION TYPES OF TRINIDAD AND FOREST RESERVE STUDY AREAS"
 black and white 1:1,200,000

LEGEND

- | | |
|-----------------------------|---------------------|
| 1. Montane evergreen forest | 5. Deciduous forest |
| 2. Moist evergreen forest | 6. Deciduous scrub |
| 3. Semi-evergreen forest | 7. Swamp |
| 4. Dry evergreen forest | 8. Marsh |

ROSS, PHILIP

1961 "The plant ecology of the teak plantations in Trinidad." *Ecology*, vol. 42, p. 389.

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