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INSTITUTE OF TERRESTRIAL ECOLOGY
(NATURAL ENVIRONMENT RESEARCH COUNCIL)

THE INVERTEBRATE FAUNA OF THE MATURE TIMBER HABITAT SURVEY OF AREAS - SITE REPORTS - ENGLAND

(NCC/NERC CONTRACT NO F3/03/77 : ITE PROJECT NO 405)

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THE INVERTEBRATE FAUNA OF THE MATURE TIMBER HABITAT

SURVEY OF AREAS - SITE REPORTS

ENGLAND

The following collection of site reports is arranged by Nature Conservancy Council regions. The section of reports for each region is prefaced by a list of all the areas visited as part of the survey, with dates of visits and references to the site report numbers and/or area descriptions.

THE INVERTEBRATE FAUNA OF THE MATURE TIMBER HABITAT

SURVEY OF AREAS

1. East Anglia (England) Region

The following areas have been visited as part of a national survey commissioned by N.C.C. from I.T.E. The background and sources of this survey are outlined in the contract report of March 1976. Some areas were reported on in detail. These reports are included herewith in numerical order according to the following list. The remaining areas have, for various reasons, not warranted detailed reports. Summary descriptions of them have been made and included in either of the contract reports (March 1976 or March 1977) where the descriptions appear in the numbered "Area Descriptions" section.

All visits were made by P.T. Harding, almost invariably with the prior permission of the owner or his agents (except in the case of public access areas). All opinions expressed are related to the conservation value and potential of a given area for the invertebrates of mature and over mature trees, dead wood and associated biotopes.

Area, County	Date visited	Report number/ Area description
Epping Forest, Essex	August 1976	1.1/1976-1, 1977-1
Kimberley Park, Norfolk	June 1976	1.2/1977-2
Merton Park, Norfolk	April 1976	1.3/1977-3
Felbrigg Park and Woods, Norfolk	July 1975	1.4/1976-2
Henham Park, Suffolk	August 1975	1.5/1976-3
Sotterley Park, Suffolk	June 1975	1.6/1976-4
Staverton Park, Suffolk (1972-73)	August 1975	1976-5

EPPING FOREST

ESSEX

National Grid reference : 51/4.9

Visited : 26 August 1976

Owners : G.L.C. (public open space)

The Forest was visited for one day during which it was possible to examine 4 areas. My visit coincided with the last few days of the great drought. Fires had been and were starting all over the Forest and I was able to examine the effects of two recent fires which covered at least 5 acres (2 ha) each. Several photographs were taken of fire damage and fire fighting in progress.

High Beech area (North-east of Claypit Hill). This is one of the two areas singled out by entomologists as being of particular importance for the rarer Coleoptera. It is beech/oak/hornbeam woodland with beech pollards of some 200+ years old, with much beech regeneration. The oak and hornbeam pollards are mostly dying or dead, but hornbeam is regenerating in places. Dead wood is plentiful in the often impenetrable understorey, with standing and fallen dead trees as well as fallen branches. An extensive fire had swept through part of this area a day or two previous to my visit. The worst damage resulted from the underground fires which had caused several beech and hornbeam to fall. In places erosion and some damage to trees has been caused by the public.

Long Hills - Bury Wood. This area is more remoted than High Beech and seems to be less damaged by public use. The woodland is a homogeneous mixture of oak, hornbeam and beech with some holly, birch, apple and hawthorn. The beech are mainly old (200+ years) and there are some of about 100 years old, with recent regeneration in a few places. Some oak and hornbeam are possibly contemporary but there is a wider range of ages including plentiful recent regeneration. Dead wood is quite plentiful throughout.

Great Monk Wood. This is the other area which is particularly favoured by entomologists. The northern end is mainly composed of overmature beech pollards over bare ground with a few areas of birch and some oak and hornbeam mainly alongside the A.11 and A.121 roads. Further south there is more oak and hornbeam mixed with the beech. Dead wood is not plentiful except in the crowns of trees.

Woodbury Hollow - Loughton Camp. A mixture of overmature oak, beech and hornbeam pollards and some younger oak maidens (50-100 years) and with hornbeam natural regeneration. There are also localised areas of birch dominated woodland. This

is possibly the least disturbed area seen. Dead wood is quite plentiful.

Summary

Epping Forest is a well known site for the fauna associated with old trees. The most comprehensive list of Coleoptera is that of Buck (1955) but additional species have been recorded since. Entomologists criticise the management of the Forest on the grounds that dead wood and trees are removed too readily. Dead wood, of all forms, was found to be common, but nowhere really plentiful. Public use of the area is intense in places and clearly much dead wood is removed or destroyed as a result. However, in the remoter parts of the Forest, hollow trees and fallen dead wood are to be found and are undisturbed. The tree species composition varies greatly over the area but oak, beech and hornbeam are principal species.

Although 1976 saw an unprecedented number of fires in the Forest, it is unlikely that these will have had much serious effect on the fauna except to cause the death of some otherwise healthy trees. Regeneration of the 3 principal tree species is taking place, although it is somewhat localised in some cases.

References

Buck, F.D. 1955. A provisional list of the Coleoptera of Epping Forest. Entomologist's mon. Mag. 91 : 174-192.

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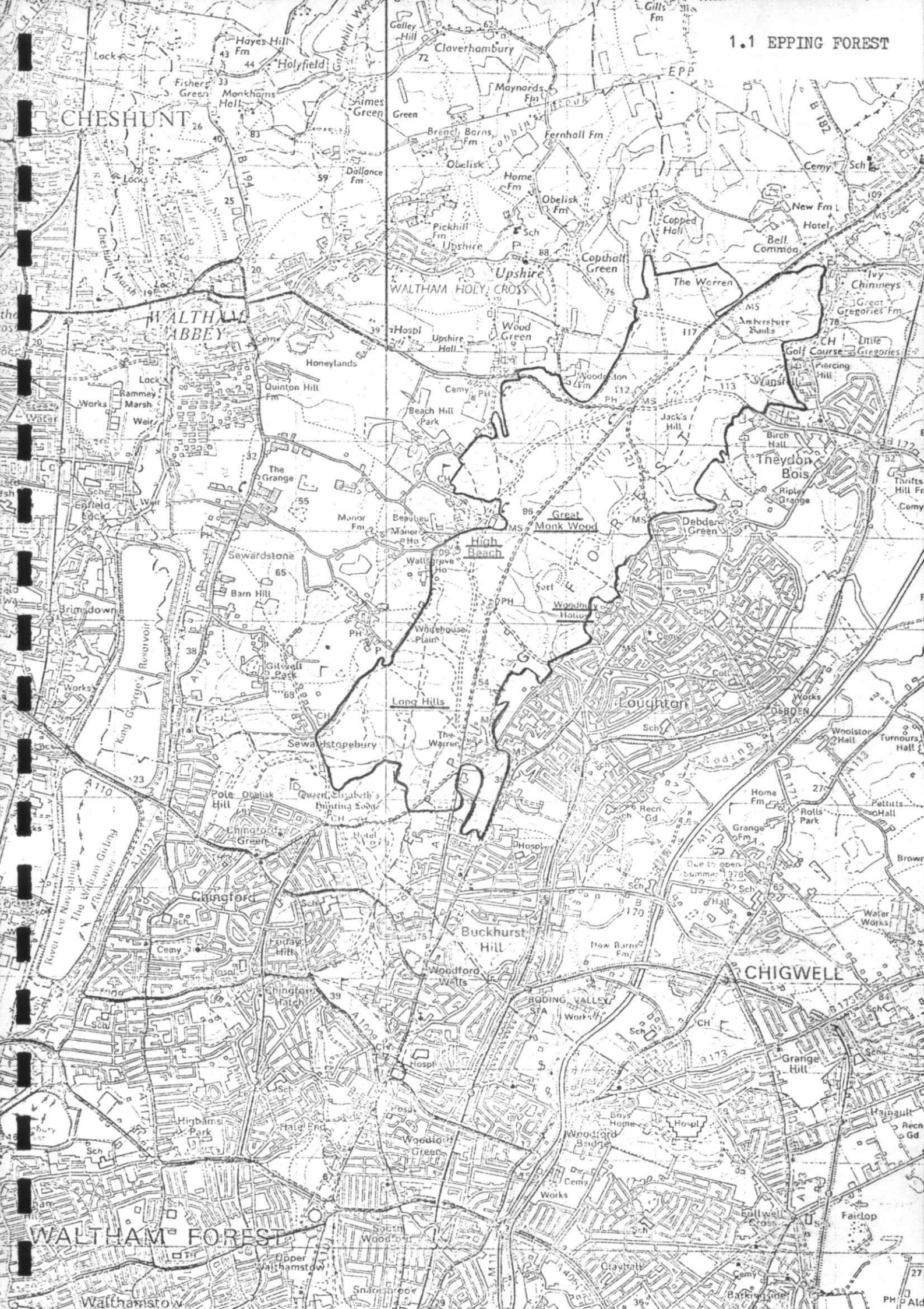

CHESHUNT
WALTHAM ABBEY
WALTHAM HOLY CROSS
Upshire
Copthall Green
Theydon Bois
Great Monk Wood
High Beach
Loughton
Debden Green
Sewardstone
Sewardstonebury
Chingford
Chingford Green
Buckhurst Hill
Woodford Wells
CHIGWELL
WALTHAM FOREST
Waltham Abbey
Honeylands
Quinton Hill Fm
Beach Hill Park
Jacks Hill
The Warren
Golf Course
Wansfell
Ivy Chimneys
Great Gregories Fm
Little Gregories
Piercing Hill
Ambersbury Banks
Copped Hall
Bell Common
New Fm
Cemy
Sch
Hotel
Pickhill Fm
Upshire Hall
Wood Green
Obelisk Fm
Home Fm
Fernhall Fm
Maynards Fm
Dallance Fm
Breach Barns Fm
Obelisk
Claverhambury
Galley Hill
Gills Fm
Hayes Hill Fm
Holyfield
Monkhams Hall
Aimes Green
Fishers Green
Locks
Lock
Rammey Marsh
Works
Weir
Water
Cheshunt Marsh
Enfield Lock
The Grange
Manor Fm
Beaulieu Manor Ho
Wattsgrove Ho
Barn Hill
Brimsdown
Gilwell Park
King Georges Reservoir
Pole Hill
Obelisk
Queen Elizabeth's Hunting Lodge
Long Hills
The Warren
Woodbury Hollow
Warehouse Plain
Debden Sta
Roding Valley Sta
Woolston Hall
Turnours Hall
Homa Fm
Rolls Park
Pettits Hall
Grange Fm
Due to open summer 1978
Water Works
New Barns Fm
Grange Hill
Hainault
Fairlop
Fullwell Cross
Woodford Bridge
Boys Home
Hospl
Recn Gd
Claybatt
Barkingside
Friday Hill
Chingford Hatch
Higham's Park
Hale End
Woodford Green
Upper Walthamstow
Snaresbrook
Wanstead
Walthamstow
River Lee Navigation
The William Girling Reservoir
A112
A110
A1037
A1009
A121
A113
A123
B194
B182
B170
B173
B172
B171
EPP

KIMBERLEY PARK

NORFOLK

National Grid reference : 63/08.04

Visited : 7 June 1976

Owner : R.C. Buxton, Esq., Kimberley Hall

The park is now in two ownerships having been sold by the Wodehouse family in the 1950s. The estate had belonged to the Wodehouses since about 1400. Mr. Buxton owns the eastern half of the park, and it is this area that seems to contain most of the remaining old parkland trees.

The present Hall dates from 1712, and the park was landscaped by Lancelot Brown in about 1750. His plans for the landscaping still exist. Little remains of the landscaped park other than near the lake where there are some old horse chestnuts and sycamore. There are also a few beech and oaks scattered about which must date from this period.

The main area of ancient oak pollards which predate the 18th century landscaping lies to the east of the Hall. These trees, some of which are believed by Mr. Buxton to be 500 years old (and he may be correct) are in open parkland, in areas of hawthorn scrub on irregular ground and in hedges. There is a similar area of about 10 old oaks to the north-west of the Hall.

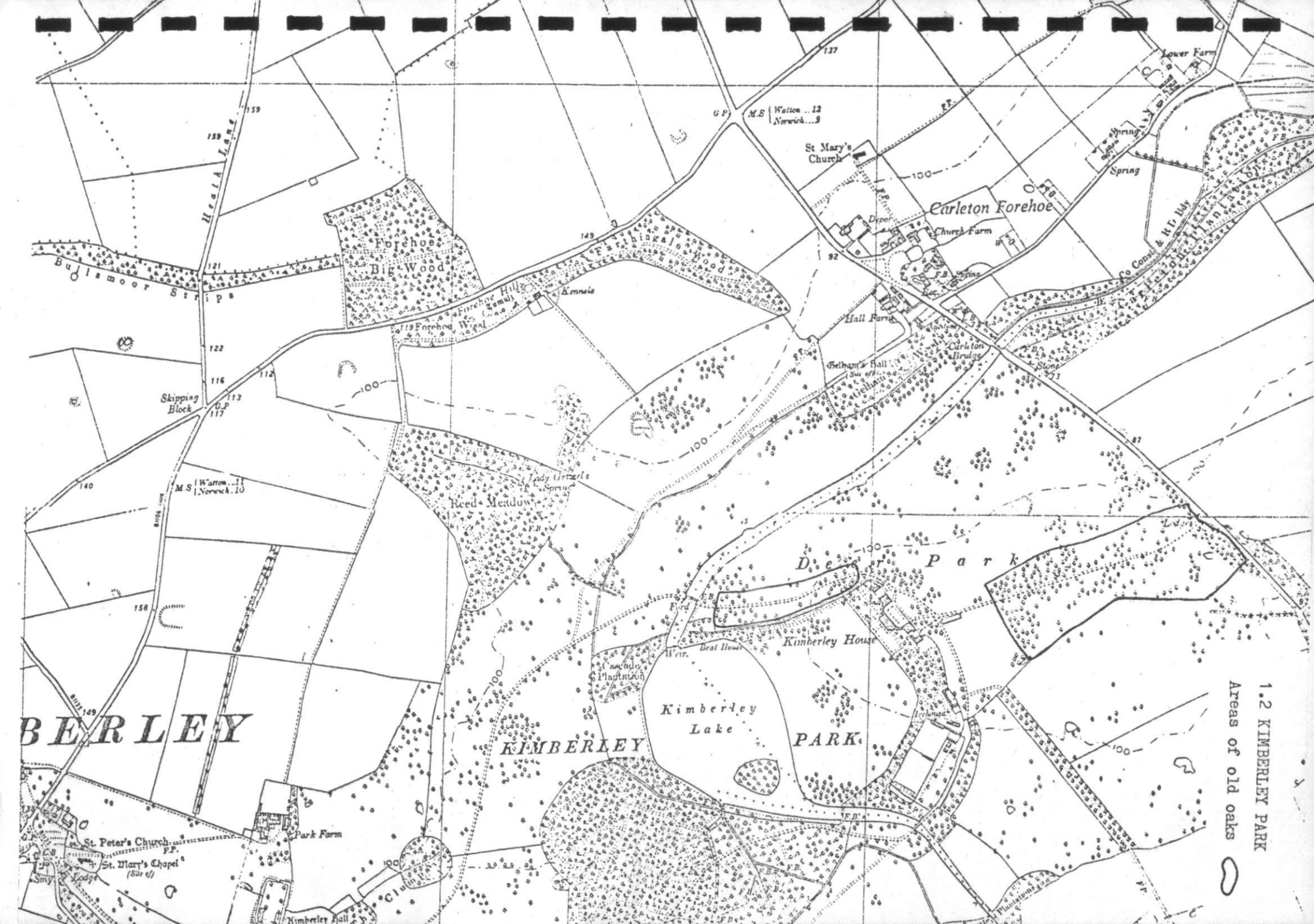
Both these areas have some truly massive oak pollards many of which are 5-6 m breast height girth. Most are hollow, but few have any accumulations of red wood mould owing to the fact that rabbits have excavated around the bases of trees and down into the centre of the bases. There is a second generation of oaks scattered among the older trees. These are mainly between 100 and 200 years, and there are also a few plantings of young oaks up to 30 years old.

Dead wood is plentiful in the crowns of older trees and there is some fallen dead wood. There is ample evidence of death-watch beetle and other timber boring species in the old trees. Hawthorn is abundant among the oaks in the eastern area.

Summary

Much of the park has been cleared of trees, but two small areas with some massive oak pollards as well as younger oaks remain. These are to the north west of the Hall, and east of the Hall near the Wymondham to Carleton Forehoe road. Hollow trees and dead wood in the crowns of trees are plentiful. Although of limited area, the remnants of this ancient park may be of some interest for timber fauna, as it certainly is for epiphytic lichens.

Paul T. Harding


1.2 KIMBERLEY PARK
Areas of old oaks
KIMBERLEY
KIMBERLEY PARK
Deer Park
Kimberley Lake
Kimberley House
Carleton Forehoe
Forehoe Big Wood
Reed Meadow
Park Farm
St. Peter's Church
St. Mary's Chapel
St. Mary's Church
Church Farm
Hall Farm
Gelham's Hall
Carleton Bridge
Lower Farm
Bulsmoor Strips
Heath Lane
Skipping Block
Kennels
Depot
Spring
Ford
Weir
Boat House
Lodge
Plantation
Clump
Stone
Lady Grizel's Spring
Forehoe Hill
Forehoe Wood
Earlsheath Wood
Co. Canal & Rly
M.S. Watton ..12 Norwich ..9
M.S. Watton ..11 Norwich ..10

MERTON PARK

NORFOLK

National Grid reference ; 52/9097

Visited : 28 April 1976

Owner : Lord Walsingham - Agent Col. W. d'A. Garnier

Merton Park lies in a shallow basin, mainly on very light sandy soils. It is bounded on the western side by the Peddars Way Roman road and on the southern side by a low wooded hill (Sparrow Hill), along the crest of which runs the Merton parish boundary with a distinct bank and ditch.

Much of the mature timber and parkland trees have been cleared in the last decade. Felling of mature oak was in progress throughout Merton Wood. The area of Merton Wood within the parish of Merton is mainly broadleaved woodland managed to high forest, with a few scattered conifers. To the south Sparrow Hill is mainly recent conifer plantations and birch scrub with a few boundary oak pollards. The broadleaved woodland of Merton Wood lies on a variety of soil types with heavier soils capping the highest part towards the west; here ash is common and in some areas the ground flora is quite rich. On the very western edge, and along the parish boundary, there are occasional hornbeams. The eastern half of Merton Wood is mainly mature oak woodland with beech and a mixture of exotics, with in places a dense Rhododendron shrub layer. There is a fine area of oak/holly/birch woodland, south of the Hall containing some of the oldest oaks in the wood and some very large hollies.

There are some impressive 200+ year old oak and beech in The Squares, the remnants of a vista grove, now growing in open scrub woodland. Elsewhere there are old oak pollards along Peddars Way, in some of the remaining park plantations and edge coverts. There is a single ancient dead, hollow oak near the Watton/ Pockthorpe road in the south east of Merton Wood, this is probably the "Conquest Oak" mentioned by Francis Rose; it is much larger than any other oak on the estate.

Much of the mature wood has been felled or is due to be felled, except possibly some of that to the south of the Hall. Some ancient pollards remain, but all are very exposed and desiccated. Fallen dead wood is not plentiful except in deepest cover although there is some "lop and top" remains of recently felled oak and diseased elm.

The history of the park and Merton Wood would repay investigation. Oliver Rackham asserts that the park was enclosed from agricultural land although Merton

Wood is believed to be ancient and elements of the epiphyte flora suggest continuity of woodland cover. It is hoped that some information on the history of the park and Merton Wood will emerge from John Sheail's work on the Stanford P.T.A.

Summary

The park lies on sandy soils and Merton Wood is also mainly on sands although there are areas of heavier soils. Much of the mature timber and parkland trees have been cleared in the last decade. Felling of mature oak was in progress throughout Merton Wood. Overmature oaks remain along the Peddars Way and are scattered elsewhere in the park and woods. The Squares contains some impressive old oak and beech of over 200 years. South of Merton Hall is an area of oak/holly/birch woodland with a few beech. The oaks are large, probably even aged (200-250 years), as are the hollies. O. Rackham considers that the park was enclosed from agricultural land, but the epiphytic lichen flora indicates woodland continuity and Merton Wood is believed to be ancient. Boundary oaks are plentiful in the area. In many ways similar to Sotterley Park, Suffolk, although overmature trees are less numerous at Merton.

Paul T. Harding


Merton Common
Waltonwick
New Plantation
Rabbit Plantation
Milestone Grove
Blind Lane
Old Farm
Merton
MERTON
Broomhill Farm
Home Farm
Moat
Cross Lane
Nettlehill Covert
Duck Plantation
Hallcrown Covert
North West Covert
Roman British Pottery found A.D. 1920
The Squares
Kennels
Arauceria Plantation
Pit Plantation
St. Peter's Church
MERTON PARK
Fish Pond
The Ring
Goaling Plantation
Merton Hall
Birch Wood
Fish Pond
Pond
Merton Hill Wood
Tumulus
Pheasantries
Toke's Plantation
Tumuli
Earthholes Plantation
De Grey's Plantation
THO
Brick Field
Barker's Plantation
Spartoun Plantations

FELBRIGG PARK AND WOODS

NORFOLK

National Grid reference : 63/192397

Visited : 11 and 12 July 1975

Owners/managers : National Trust (Regional Agent, Eastern Regional Office, National Trust, Blickling, Norwich NR11 6NF)

The Felbrigg estate lies in the parishes of Felbrigg and Aylmerton and surrounds the Hall which originated in 1620. The parish church of Felbrigg lies in the south-east of the park, and it was around the area of the church that the old village of Felbrigg existed until the middle of the 16th century.

The whole area lies on the glacial sands and gravel of the Cromer End-moraine and is on superficially leached soils.

The estate falls into three distinct areas for the purpose of this survey: the Great Wood (and its outliers), the park with isolated trees in open canopy, and Common Plantation.

Felbrigg Great Wood

The area from the Lion's Mouth Valley to Harrison's Brake was examined with the Chief Woodman, Mr. Massingham. Beech predominates as the mature species, with some chestnut and oak. The oldest beech are "pollards" developed from high cut coppice, of up to 300 years old. Most have grown to a few straight stems which form a closed canopy with younger (200 years old) maidens of beech, sweet chestnut and oak. Only in the Lion's Mouth area are typical low crowned pollards found. Within the last 3 years several of the oldest beeches have blown over, leaving considerable holes in the canopy which must jeopardise the survival of their neighbours.

Dead wood in this area is represented almost entirely by beech. Dead branches are plentiful in the pollards and recently fallen limbs are also plentiful. The trees which have blown down have been cleared except for lop and top, the basal stump and a few rotten pieces of trunk. Most dead limbs of beech must go for firewood because Mr. Massingham said that up to 20 tons are cleared by estate workers for their own use each year.

The structure, development and management of this area has been reported upon by Peterken and Rose in 1970

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The Park

Compartment 18 of the dedicated woodlands is in fact structurally part of the park although it has to some extent been invaded by sycamore and other natural regeneration. It contains many 300 year old beech and sweet chestnut and some oak which may be a little younger. Some very large sweet chestnut pollards exist (breast height girth 5.9 m) and seem to be in a healthy condition. The beech and oak are mostly maiden. Dead wood is not plentiful except for a few boughs in the tree crowns.

Roundwood Hill is probably the principal area of interest in the park with some very old oaks which, with the few oaks between the Hall and the church, must predate all the other trees on the estate. Also in this area are beech, sycamore and sweet chestnut of about 300 years. All are growing in open canopy and have typical low stature with broad crowns.

The rest of the park has a rather thin scatter of trees, the best being the ancient line of sweet chestnuts running between the Hall and church. Some similarly aged beech and sycamore as well as the older oaks mentioned above are in this area.

Common plantation

This is a large area of oak plantation with some beech and chestnut, part of which is now being selectively felled and replanted with conifers. Most of the trees are less than 200 years old but many of the oaks are in a decrepit state with numerous dead branches and some dead standing trees.

Succession

The succession of all species of trees is good in the Great Wood, with examples of trees at 50-100 year generations from 300+ years old to recently planted or naturally regenerated saplings. Succession in the park is less good, but recently established specimen trees and blocks of the relevant species are being carefully maintained; there is however at least a 250 year generation gap for the parkland trees. The management intentions for Common Plantation are not altogether clear, but it is probable that some succession of oak will remain.

Dead Wood

Beech. The beeches of the Great Wood exhibit most of the dead wood niches available for invertebrates although because of the rapid clearance of fallen timber for firewood the continuing supply of some niches may be irregular in the

future. Much of the larger pieces of dead wood lie in clearings where the trees have fallen and therefore are exposed and seem rather desiccated. Dead branches in living trees seem to be actively occupied by wood-boring insects.

Oak. The oaks in the Great Wood are mostly under 250 years old and exhibit little other than dead branches and some fallen branches although these latter tend to be cleared for firewood. The oaks of the park are older and hollow, and contain some rather dry red heart rot together with dead branches and stumps where branches have fallen. Fallen branches in the park seem to be cleared away.

Sweet chestnut and sycamore. Both species seem to be of limited use to timber utilizing invertebrates, but in the parkland chestnuts there are certainly plenty of dead branches in the trees available for those species capable of utilizing them.

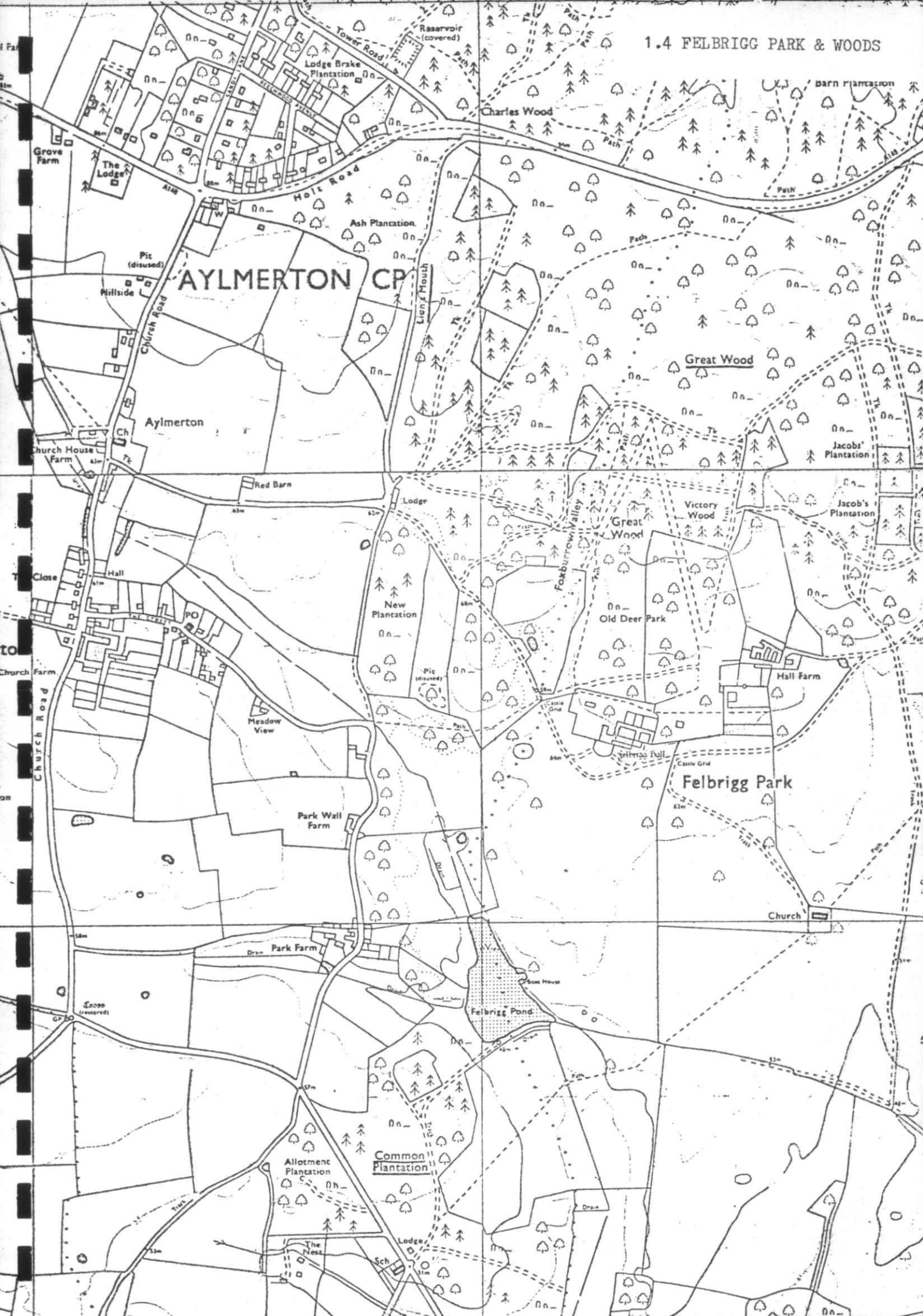
Evaluation

There can be little doubt that Felbrigg has considerable potential for the fauna associated with beech timber, however 2 factors are perhaps against the site being of highest importance. 1) There has probably not been continuity of overmature beech timber on the site; what one sees now is a high-point for the availability of the habitat. 2) Dead wood is cleared far too rapidly for the fungal activity and timber fauna to go through their full cycle.

The potential of the oak is probably much less than for beech simply because there are so few oaks which have reached the age of greatest value to the timber utilizing fauna. However, to judge from the surrounding area, it is probable that oak as a boundary tree has been widespread and common for many centuries. As with beech the clearance of dead wood does not help matters.

Summary

Of considerable potential for fauna associated with beech, although there has probably not been continuity of overmature beech in the Great Wood, the present situation is a high-point for the availability of the habitat. Oak, beech and sweet chestnut occur throughout the Great Wood with good range of age classes. The northern end of the park, contains many 300+ year old oak and some old beech, sweet chestnut and sycamore. Many are isolated and probably heat sterilised. A new generation has been planted using these species,but there is a 200+ year age gap. Fallen dead wood is cleared throughout the Great Wood and Park and is a scarce habitat. O. Rackham suggests that the beeches of the Great Wood originated on common land.


1.4 FELBRIGG PARK & WOODS
AYLMERTON CP
Aylmerton
Grove Farm
The Lodge
Holt Road
A148
Tower Road
Reservoir (covered)
Lodge Brake Plantation
Ash Plantation
Pit (disused)
Hillside
Church Road
Lion's Mouth
Charles Wood
Barn Plantation
Path
Great Wood
Jacobs' Plantation
Ch
Church House Farm
Red Barn
Lodge
Victory Wood
Jacob's Plantation
Foxburrow Valley
Close
Hall
PO
New Plantation
Old Deer Park
Hall Farm
Church Farm
Meadow View
Park Wall Farm
Felbrigg Park
Church
Park Farm
Drain
Felbrigg Pond
Allotment Plantation
Common Plantation
The Nest
Sch

HENHAM PARK

SUFFOLK

National Grid reference : 62/4477

Visited : 29 August 1975

Owner : Lord Stradbroke

The park is now mainly arable farmland and improved pasture. Some isolated ancient oaks, mainly pollards are scattered over parts of the park together with various exotics, but all are exposed and unlikely to be of much value either for fauna or epiphytes. There are however two small areas of interest.

Oakhill Wood

The western half is oak/birch woodland with a few horse chestnuts over a pure bracken stand. The oaks are mostly ancient pollards with multi-stemmed growths, some of which are of a considerable height. A couple of oaks are dead, and a few have fallen but are now devoid of bark, and have damp, hollow interiors. There is a low proportion of young maiden oaks of circa 150 years. The birch are all mature trees and there is little regeneration. Almost all the old oaks are hollow, with red heart rot. Dead branches are plentiful in the crowns and there are some fallen branches. The southern edge and also the rideside on the east of this western half are dense thickets of elm and sycamore natural regeneration. The ancient pollard oaks continue into the meadow south of the western half.

The remainder of Oakhill Wood is mainly mature oak plantation of between 100 and 150 years old. All the trees are maidens, but many are stunted and some are already stag headed. There is a small area of mature conifer plantation on the southern edge. The ground flora is more varied than in the western half, but is basically bracken/bramble dominated. The area provides for a succession of oak adjacent to the ancient pollards.

Braker Hill and Side Hill

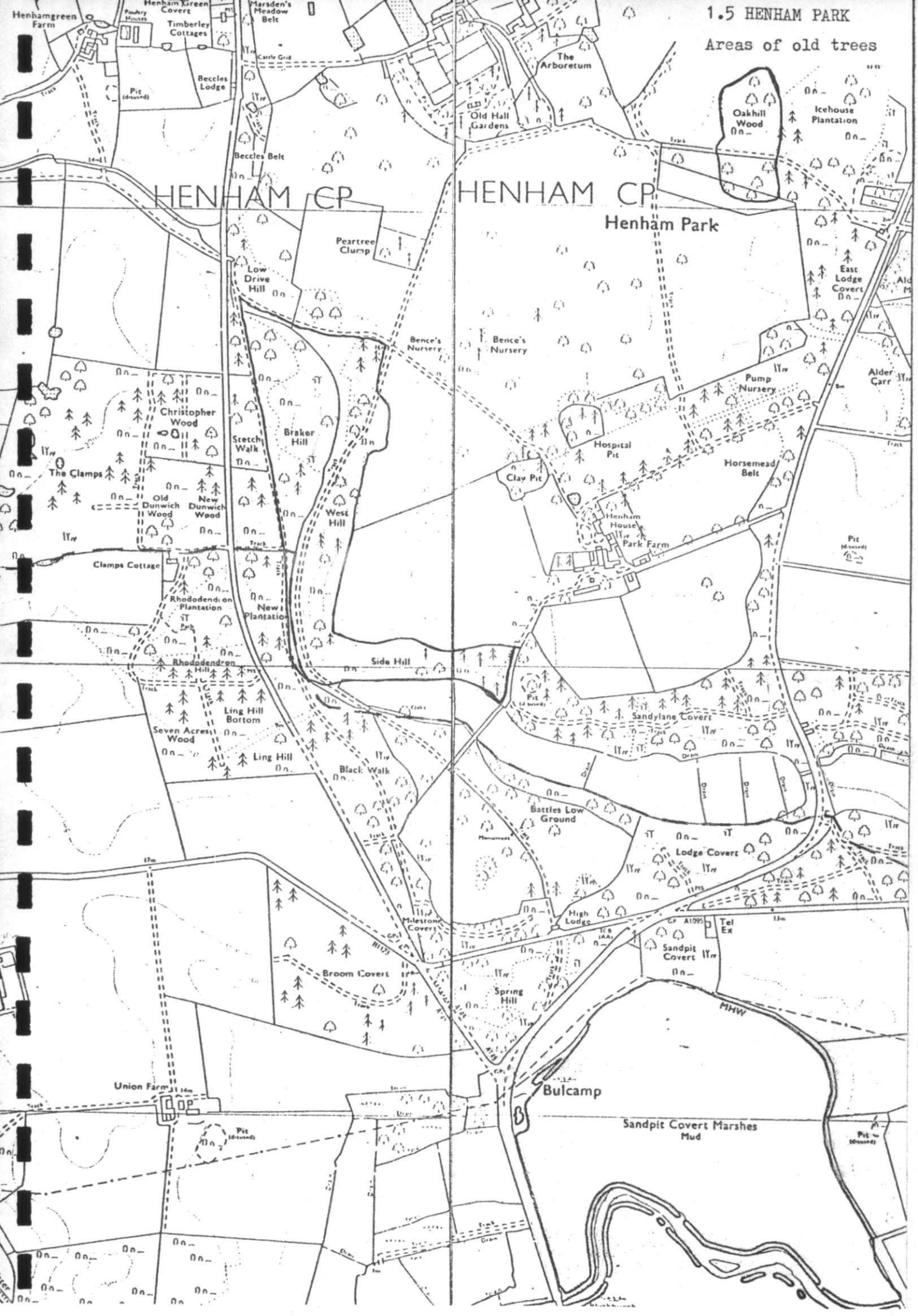
The north-eastern part of Braker Hill has ancient pollards, oak, sycamore and ash over Bracken. The trees are widely spaced and large, with considerable amounts of dead wood in the crown. Most trees are hollow. Behind this open area is an oak/beech/sycamore plantation of the hill top. The ages of the trees in the plantation vary but some may be as old as 200 years.

At the northern end of Side Hill are a dozen or so old oaks plus a few boles which have been felled in recent years.

Most of this valley on the western side of the park is mixed aged plantation with a wide range of species of both broadleaved trees and conifers. For timber fauna this area is potentially much less interesting than Oakhill Wood; however, it is this western valley that Francis Rose describes as "a fine area of relic oak forest", a view I find hard to agree with.

Summary

Two small areas are of interest. The western half of Oakhill Wood is oak/birch woodland over bracken. The oaks are mainly ancient pollards, but a few 150 year maidens are also present. Dead trees, branches and fallen timber are present and most pollards are hollow. Very similar to Staverton Park, Suffolk. A valley on the western side contains a few old pollard oak, sycamore and ash, mainly along Braker Hill and Side Hill. They are scattered over areas of bracken and in mixed aged plantations of broadleaved and conifer species. O. Rackham suggests that the park was enclosed from agricultural land, but the oldest oaks of Oakhill Wood and Braker Hill must predate enclosure.


1.5 HENHAM PARK
Areas of old trees
HENHAM CP
HENHAM CP
Henham Park
Henhamgreen Farm
Timberley Cottages
Beccles Lodge
Beccles Belt
Marsden's Meadow Belt
The Arboretum
Old Hall Gardens
Oakhill Wood
Icehouse Plantation
Peartree Clump
Low Drive Hill
Bence's Nursery
East Lodge Covert
Pump Nursery
Alder Carr
Hospital Pit
Clay Pit
Horsemead Belt
Henham House
Park Farm
Christopher Wood
Stetch Walk
Braker Hill
The Clamps
Old Dunwich Wood
New Dunwich Wood
West Hill
Clamps Cottage
Rhododendron Plantation
New Plantation
Side Hill
Rhododendron Hill
Ling Hill Bottom
Seven Acres Wood
Ling Hill
Black Walk
Sandylane Covert
Battles Low Ground
Lodge Covert
High Lodge
Milestone Covert
Sandpit Covert
Tel Ex
Broom Covert
Spring Hill
MHW
Union Farm
Bulcamp
Sandpit Covert Marshes
Mud

SOTTERLEY PARK

SUFFOLK

National Grid reference : 62/4685

Visited : (26 July 1973) and 12 June 1975

Owner : Miles Barne (absentee), managed by his father, Col. Michael Barne

Sotterley Park lies near the centre of the Sotterley Estate, an area notable in this part of East Anglia for its tree cover and hedgerows. In this sheltered situation the park itself is slightly lower lying and well wooded, being almost encircled by sheltering belts of woodland.

The origins of the park are obscure. In Domesday Book the parish contained a wood for 100 hogs (large by local standards) and in 1309 Roger de Soterle held manor and his son warren in the parish. The grant of free warren does not necessarily imply emparkment as was inferred by Dr. Rose in his report on the park. However, the circular outline of the park suggests a medieval origin. In 1744 when the Playters sold to the Barne family the estate was excessively wooded and extensive fellings were done but the estate remained one of the best wooded in Suffolk. The history of the deer park is unknown, it was listed in neither of the 19th century works on deer and deer parks (Shirley 1867 & Whitaker 1892). Oliver Rackham (pers. comm.) suggests that all or part of the park was enclosed from agricultural land. This suggestion is supported by the appearance of the layout of parts of the park (see below).

The park was clearly landscaped in the later 18th century and the composition of the parkland north of the Hall and of the Pleasure Grounds give evidence of this. The standard trees in Sotterley Wood are of a similar age, but there can be little doubt that part of this wood is of ancient origin, judging by its ground flora.

The park includes a large area of named woodland, most of which is mixed deciduous, although there is a thin scatter of larch and other conifers throughout. Scarls Grove has been largely replanted with conifers in the last 15 years, and there is a 70 year old Pinetum at the north western end of the park. In Sotterley Wood oak is the dominant tree with an understorey including hornbeam and hazel. There are some hollies, but Col. Barne said that most of these were planted by his grandfather. The oaks of Sotterley Wood are about 150 years old. Some coppice was last cut about 10 years ago for faggot making - used in maltings producing malt for Mackeson stout.

The open parkland seems to be of two types : that with a fairly even age

planting of a mixture of tree species, and that with very old oak and ash pollards, often aligned in rows. The planted parkland is to the north and north-west of the Hall, and the trees are mainly in avenues or clumps. Species include oak, elm, ash, beech, walnut, sycamore, lime, horse and sweet chestnuts and various conifers. The average age of these planted trees is probably 150-200 years, certainly they postdate the building of the present Hall by the first Barne owner in 1740. Much of this area is arable or is cut for hay. There is an area of old hawthorn clumps at the northern end of Sotterley Wood. The oak dominated parkland containing some very ancient pollards lies to the south and west of the Hall and Pleasure Grounds. The structure of this area needs examination as there is an indication that the oldest oaks follow regular lines, as though delineating small closes. There are old ash pollards, occasional hornbeam, elm and maple pollards as well as younger maiden oaks, some less than 100 years old. The age of the oldest oaks is difficult to gauge - certainly over 350 years; Frances Rose gives as 500-600 years, which would be contemporary with the acquisition of the park by the Playters family (1470). This area has several small clumps of hawthorns and elders, and 3 plantings of oak in square enclosures. The area of open parkland to the south east of the Hall was not seen.

Park Wood and the area of parkland between it, the lake and the stream flowing into it from the west, is probably the most important area for old oak trees with dead wood. The oaks are mainly maiden, with about 50% pollards in the parkland portion only. These pollards are quite tall and not particularly spreading. There are several dead standing oaks in the area, which are not to be found elsewhere in the park. There are also some elm and ash and, along the roadside, horse chestnut. The oldest oaks are probably over 400 years with some venerable ash and elm of over 200 years. Park Wood itself is composed of oak standards older than those in Sotterley Wood (150-200 years) over coppice (hornbeam, hazel, field maple, ash and wych elm) with a scatter of older oaks similar to those in the adjacent parkland.

Dead Wood

Few trees are dying in the parkland, and of what trees that are dead, very few have been left standing. Col. Barne said that most fallen timber is used for firewood on the estate - "hardly a bag of coal comes onto the estate". What is more worrying perhaps is that active "tidying up" has gone on recently - against Col. Barne's instructions. Some old stumps have been burnt within the last few months - and most of the dead trees show signs of some attempt to fire them.

Management

It seems that Col. Barne and his son are well aware of the conservation interest of Sotterley Park, although Col. Barne is perhaps primarily interested in the growing of trees and the maintenance of a healthy pheasant stock. Taking the estate as a whole, it is remarkable for the abundance of hedges, hedgerow pollards and trees, and corner plantings of trees. This latter would seem to be the result of advice given by Colin Ranson to Miles Barne, a few years ago. There seems to have been some resistance from the farm executive to this conservationist swing. An advisory report on the use of farm chemicals in the park was prepared by Brian Davis and P.W. Lambley in 1972 - this was done at the request of the Barne's in the light of the interest in the epiphyte flora aroused by Lambley and Drs Rose and Hornby in 1971. Whether the recommendations of the report have been implemented is difficult to guess. Ragwort is uncommon, and thistles are quite plentiful in some of the grazed areas. The arable area in the north west of the park is noticeably free of weed species indicating that the use of herbicides continues.

Nine enclosures have been established in the areas of open parkland. These were planted with nursery grown trees with a shelter of birch three years ago. All the seed used was obtained from trees in the park. The fencing of some of these enclosures is poor and it seems that cattle have already broken into at least one. The enclosures are planted with single species (except for the shelter of birch) as follows:

5 Quercus robur, 2 Juglans regia, 1 Pinus sylvestris, 1 Castanea sativa

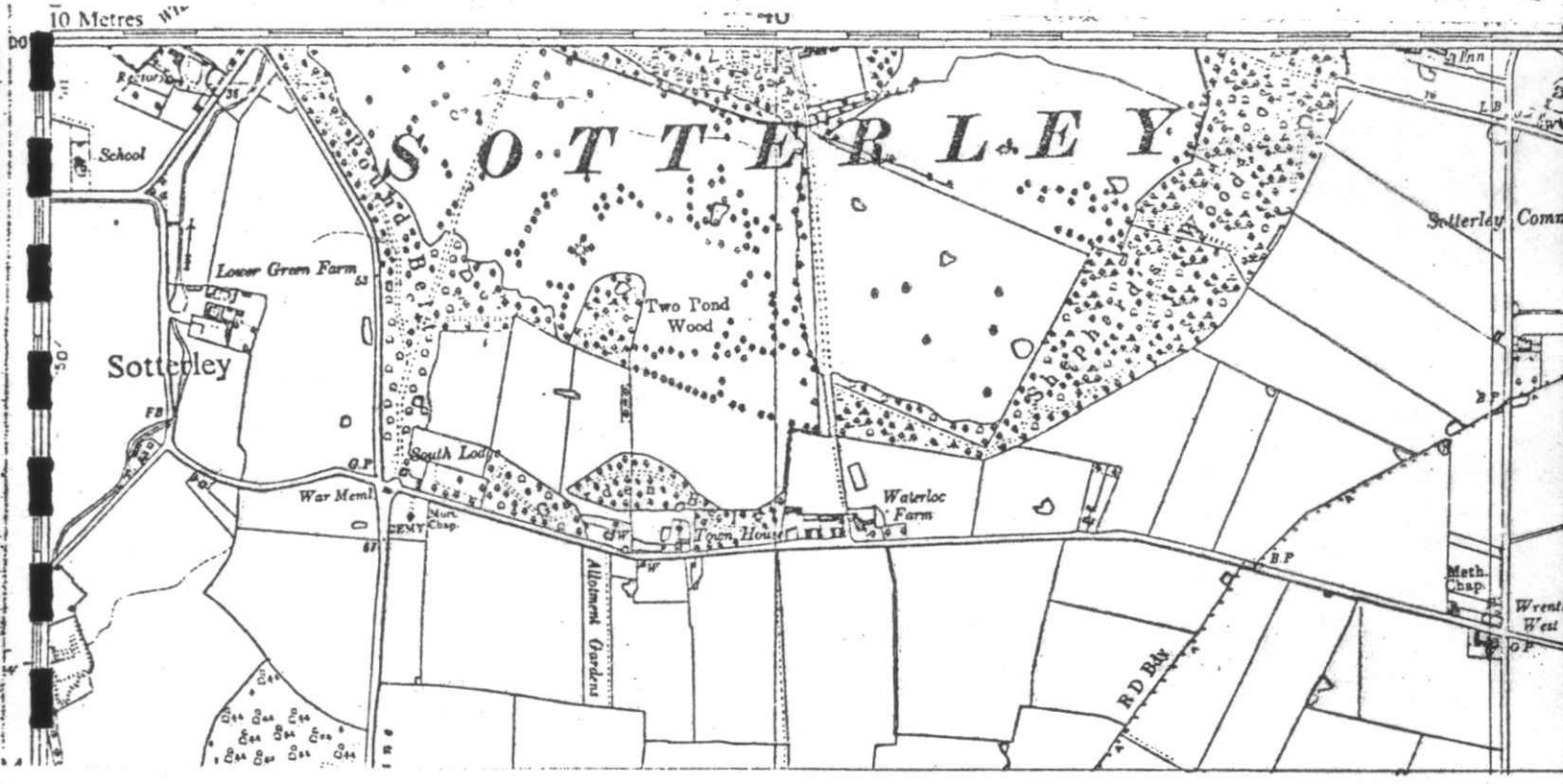
Other than this young generation which is unlikely to produce more than 3 mature trees per enclosure, there is little succession, the youngest trees in the parkland being oaks of about 100 years. More enclosures should be established, preferably of oak and ash but some sycamore near to the old sycamores would be an asset. Another possible source of recruitment to the open parkland would be the adjustment of the woodland boundaries to allow some felling of all but a few trees in certain small areas. Similarly woodland could be extended into areas which are at present lacking old park trees. Some natural regeneration of oak was noticed in the area of the old oak pollards.

Summary

The park and its surrounding woods are scattered with old oaks, both pollards and maidens, as is the Sotterley Estate generally. The outstanding lichen interest of this area is partly based on taxa epiphytic on alien trees - sycamore and walnut.

O. Rackham considers that all or part of the park was enclosed from agricultural land, and in the oak "savanna" described by Rose in his report (10.10.1971) in the south-west of the park, the trees do appear to be arranged in a pattern which suggests a hedgerow origin. Clearly there has been continuity of tree cover in the area and it would be interesting to see what fauna is present in this situation.


Marsh Farm
Mill Farm
Jay's Hill Road
Great Birch
Little Birch
Low Barn
Jay's Hill
Hall Cottages
Willingham Wood Belt
Willingham Wood
Willingham Hall
Jayshill Lodge
Scarls Grove
Kate's Parlour
D Suttle
Scarlsgrove Belt
Park Wood
Sotterley Park
North Spring
Kent's Spring
The Hay Pit
Sotterley Wood
Sotterley Hall
Round Suttle
Saw Mill
Sotterley
Lodge


10 Metres
SOTTERLEY
School
Lower Green Farm
Two Pond Wood
Sotterley
South Lodge
War Meml
Waterloc Farm
Town House
Allotment Gardens
Sotterley Comm
Meth Chap
Wrent West
RD BM

THE INVERTEBRATE FAUNA OF THE MATURE TIMBER HABITAT

SURVEY OF AREAS

2. East Midlands (England) Region

The following areas have been visited as part of a national survey commissioned by N.C.C. from I.T.E. The background and sources of this survey are outlined in the contract report of March 1976. Some areas were reported on in detail. These reports are included herewith in numerical order according to the following list. The remaining areas have, for various reasons, not warranted detailed reports. Summary descriptions of them have been made and included in either of the contract reports (March 1976 or March 1977) where the descriptions appear in the numbered "Area Descriptions" section.

All visits were made by P.T. Harding, almost invariably with the prior permission of the owner or his agents (except in the case of public access areas). All opinions expressed are related to the conservation value and potential of a given area for the invertebrates of mature and overmature trees, dead wood and associated biotopes.

Area, County	Date visited	Report number/ Area description
White Wood, Everton, Bedfordshire	(November 1973)	1976-6
Woburn Park, Bedfordshire	June 1976	1977-4
Bradgate Park, Leicestershire	June 1975	2.1/1976-8
Croxton Park, Leicestershire	November 1976	1977 Appendix III
Grimsthorpe Park, Lincolnshire	May 1977	2.2
Morehays Lawn Oaks, Northamptonshire	(April 1972)	1976-9
Birklands & Bilhaugh, Nottinghamshire	August 1975	2.3/1976-10

BRADGATE PARK

LEICESTER

National Grid reference : 43/525098

Visited : 7 June 1975

Owners/Managers : Bradgate Park Trustees, Estate Surveyors Department, County Hall, Glenfield, Leicester, LE3 8RN

The park lies on an area of high ground to the north west of Leicester. It is ancient in origin and belonged to the Grey family of Groby from 1440 until 1928 when it was acquired under the trusteeship of Leicestershire County Council as a public open space. The deer park now lies within the much larger Bradgate County Park (see Lowday & Wells 1977).

It lies on ancient rocks; Pre Cambrian grits, shales and hornstones in the north, with numerous outcrops at the highest points, and in the south on Syenite which also outcrops. There is an alluvial streamside valley running towards the southern end of Cropston Reservoir from the south west side of the park. Soils generally are thin, rocky and leached although peat layers have built up in some areas.

Most of the park is open bracken heath with numerous rides and paths and some areas of boggy grassland. In the southern half some flat areas of grassland are used for hay cutting and for recreation; these have probably been re-seeded. The areas of plantations and park woodland are shown on the map and are detailed below.

The whole park, with the exception of the "Deer Enclosure" and the enclosed woodlands, is open to the public for walking, cycling and to a limited extent for horse-riding. There are three public car parks, at Hallgate Farm, Old John and Newtown Linford. A metalled road runs between Newtown Linford and Hallgate via the Deer Barn, but this is not open to public vehicles.

Enclosed Plantations

There are six areas of plantations enclosed by $1\frac{1}{2}$-2 m high stone walls, all probably originated in the mid-late 19th century, but one has been replanted since World War II. The plantations are composed as follows, numbers refer to the numbered plots on the map.

1) Scots pine and mixed hardwoods less than 30 years old.
2) Oak (Q. robur), sycamore (Acer pseudoplatanus) and Scots pine.

3) As for 2 above.

4) Oak (Q. robur) and sweet chestnut (Castanea sativa). Some cleared recently, probably for replanting.

5) As for 2 above.

6) Scots pine.

Un-enclosed Plantations

Tyburn Hill is crowned by a group of limes (Tilia sp.) which are probably about 100 years old, there are three ancient Castanea pollards also. Individual specimen trees of various species (sycamore, pine and Castanea etc.) have been planted on this hill in recent years.

There are two small plantings in the northern park which give some hope of succession of the open canopy oak habitat in this area.

7) A group of about 30 oaks (Q. robur) mostly broad crowned maidens of up to 100 years old.

8) An open grouping of 15 oaks (? Q. petraea) with typical open crowns resulting from the wide spacing - about 25 years old. Also in this area is a small fenced planting of mixed oak/beech/sweet chestnut, about 10 years old.

Areas of Ancient Oaks

Ancient oaks (mainly Q. petraea) of an average breast height girth of 4 m are scattered widely over many parts of the park, mainly as single trees or groups of less than 10 trees. They are all very exposed and desiccated. There are, however, three areas where ancient oaks are concentrated and form open canopied woodland.

9) A group of about 35 large pollard oaks, most of which are hollow shells with dry heart rot/red mould. All show signs of human activities in the form of litter accumulation, faeces, or platforms built in the boughs or in the hollow trunk.

10) The "Deer Enclosure" is in fact not enclosed on the north side where it is bounded by a stream. The public are requested (by means of sign posts) not to enter the area at any time. I was refused entry in July because of the danger from red deer does with young calves. It is an area of open oak woodland with many ancient trees over bracken dominated rocky heath. It is clearly the area of the park with the greatest potential for invertebrates because it is the largest and the least disturbed by the public. Few trees seem to have reached any great size either in height, girth or crown spread, many are senile with almost completely dead crowns, and a few are dead but

still standing. Being unable to enter the area it was impossible to judge the area but there seems to be little prospect of succession other than a few recently planted specimen trees along the stream valley. There are a few exotics - conifers and sycamore, among the oaks.

11) An area of oak with a few exotics on rocky faces which must have been similar to area 10, but is now severely eroded, being open to the public and near the most popular car park. A small area of 100-150 year old oak is fenced off.

Between areas 10 and 11 is an alluvial valley with streamside alders and some planted elms between the stream and the road.

Succession

Considering the park as a whole, there are three generations of oaks - the ancient trees (over 350 years old) in areas 9 to 11 and scattered in other areas, the mid 19th century plantations in areas 2-5 and 7, and the youngest plantings of a small group (area 8) and of specimen trees. In effect the generations are often widely separated by open areas of heathland. This applies especially to area 10, potentially the most interesting part of the park, which as far as I could see has only a dozen or so young trees planted within or near the present area of ancient trees.

Ancient trees of other species are very few but there seems to be sufficient provision for stocking of these species at the same level for future generations.

Dead Wood

It is impossible at this stage to comment on the dead wood situation in area 10 other than to say that many of the trees appear to be hollow. The trees in areas 9 and 11 are mostly hollow and contain some dry heart rot/red mould but are probably too disturbed to be of much value. Fallen branches in these areas are not very plentiful, but it would seem surprising if there is an active policy of clearing of fallen limbs, it may be that they are cleared by the public. The trees in all three areas, but more especially the isolated ancient trees scattered through the rest of the park are rather exposed to sunlight and probably desiccate rapidly in dry spells. Food flowers are not plentiful in the park. Hawthorn is widely but thinly scattered, but there is little else available within the park.

Evaluation

Bradgate Park is known to have considerable entomological interest and some rarities associated with ancient trees have been recorded. For lists of Coleoptera

see Bates (1896) & Henderson (1962). However, most of the park is not of particularly high potential because of the poor succession prospects, interference by the public with dead wood and ancient trees, and the exposed position of most of the oldest trees. Area 10 seems to be potentially the most interesting as well as being the largest in area - however, here succession prospects seem to be poor.

Management Suggestions

1) The establishment of a new generation of oaks, of local provenance, in area 10.
2) Continued exclusion of the public at all times from area 10.
3) No dead wood (branches or whole trees) to be removed from site except where poses a particular management problem or safety hazard.
4) Some of the trees in the 19th century plantations should be left to mature and wherever possible oak should be favoured.
5) Replacement plantation in the enclosures should be directed towards an oak final crop, and acorns of local provenance should be used wherever possible.
6) Small group plantings of oaks, of local provenance should be made in suitable sites throughout the park. These could either be in small fenced blocks or as single specimen trees (e.g. Area 8).
7) Hawthorn bushes should be allowed to remain and if possible some should be planted near existing stands of oak (all generations).

Summary

Known to have considerable entomological interest and some rarities associated with ancient trees have been recorded. Lists for several groups are available at Leicester Museum. Most of the park is not of particularly high value because of the poor succession prospects, interference by the public with dead wood and ancient trees, and the exposed position of most of the oldest trees. The "Deer Enclosure" at the southern end is reported to be the richest faunistically. This area of oak pollards over bracken is closed to the public and undisturbed. Succession here appears to be poor, but dead wood and hollow trees are plentiful.

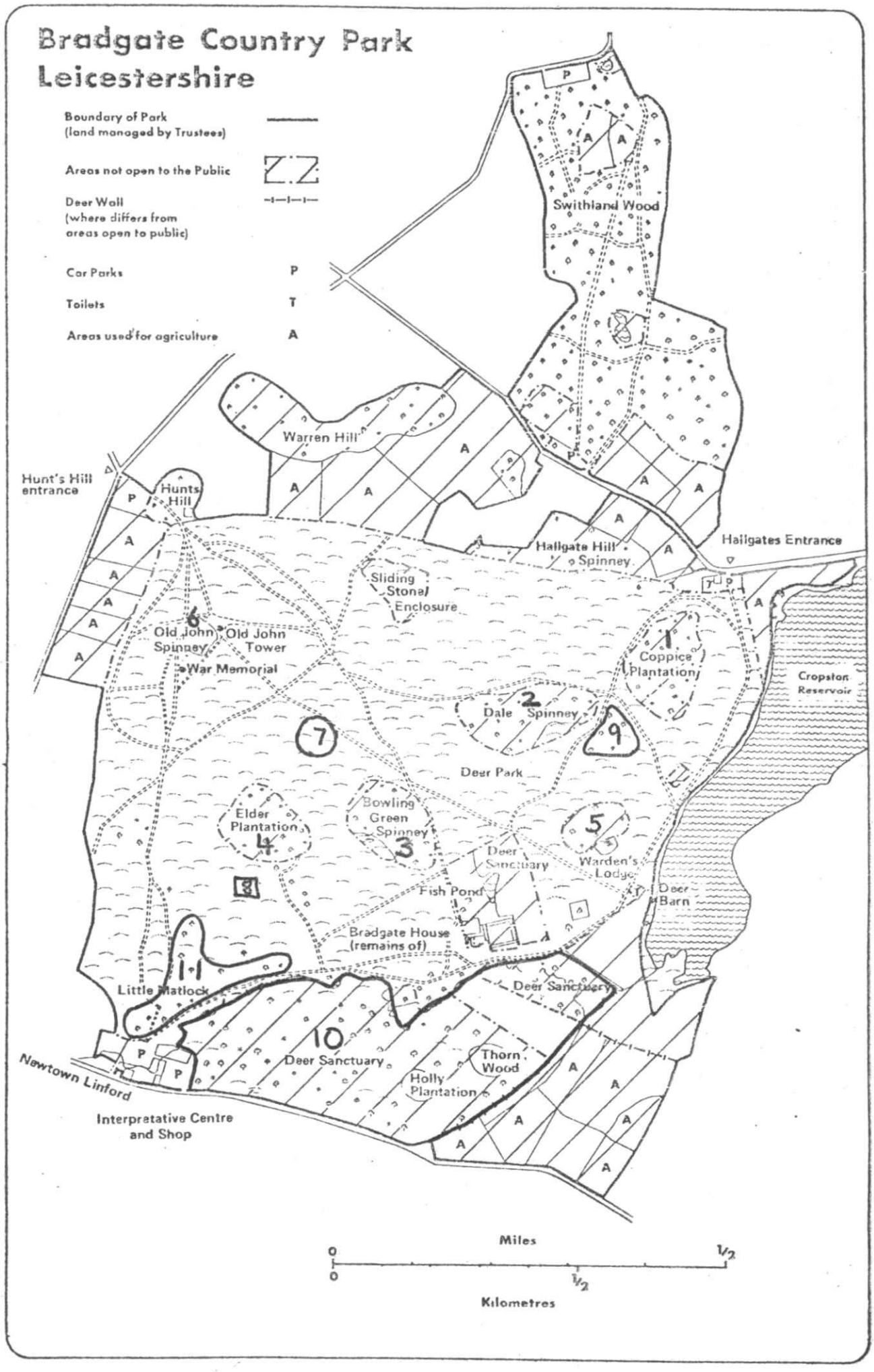
References

Bates, F. 1896. The Coleoptera of Bradgate Park. Trans. Leicester lit. phil. Soc. 4 : 170-176.

Henderson, C.W. 1962. An introduction to the beetles of Bradgate Park and Reservoir, in Surveys of Leicestershire Natural History : Bradgate Park and Cropston Reservoir margins. Loughborough Naturalists' Club, Duplicated report.

Lowday, J.E. & Wells, T.C.E. 1977. The management of grassland and heathland in Country Parks. Countryside Commission.

Paul T. Harding


Bradgate Country Park
Leicestershire
Boundary of Park
(land managed by Trustees)
Areas not open to the Public
Deer Wall
(where differs from
areas open to public)
Car Parks P
Toilets T
Areas used for agriculture A
Swithland Wood
Warren Hill
Hunt's Hill entrance
Hunts Hill
Hallgate Hill Spinney
Hallgates Entrance
Sliding Stone Enclosure
Old John Spinney
Old John Tower
War Memorial
Coppice Plantation
Cropston Reservoir
Dale Spinney
Deer Park
Elder Plantation
Bowling Green Spinney
Deer Sanctuary
Warden's Lodge
Fish Pond
Deer Barn
Bradgate House (remains of)
Little Matlock
Deer Sanctuary
Thorn Wood
Holly Plantation
Deer Sanctuary
Newtown Linford
Interpretative Centre and Shop
Miles
0
1/2
0
1/2
Kilometres

GRIMSTHORPE PARK

LINCOLNSHIRE

National Grid reference : 53/0220

Visited : 30 May 1977

Owner : Lord Ancaster. Agent : P.B. Grimes, Esq.

Much of the extensive landscaped park attached to Grimsthorpe Castle is now arable or pasture, but in the remote southern end, an area of oak dominated parkland remains. Part of this is over improved pasture, but two areas of unimproved bracken/grass field layer remain. A park was present at Grimsthorpe in the 1540's at the time of Leland's itinerary and it is believed that the remaining old oak parkland originated as a monastic park.

The southern end of the park is on high ground which slopes away sharply on the western edge and more gradually to the north. The eastern section of oak parkland (see map) ends on its northern edge in some old limestone quarries (known as"The Pots and Pans"). These quarries are rather overgrown with Brachypodium pinnatum and scrub in places, but the flora of this area could be of similar interest to that at the nearby Scottlethorpe embankment site. The dome of the southern park is on Cornbrash with sections through various Greater Oolite series on the western and northern edges. Oxford Clay and a little glacial drift is present in the extreme south east. Soils on the Cornbrash seem to be poorly drained and base poor with much bracken and Holcus.

Oak is the dominant tree of the southern park, with some rows and avenues of horse chestnut. Field maple and a few ash are also present. In places hawthorn is quite common with both mature shrubs and young saplings. Elder bushes and a few sallows were also noted. At the extreme southern end there is an area of young sycamore regeneration. If allowed to mature this species could be quite invasive over part of the parkland. The oaks have the appearance of being a natural population of Q. robur with a wide variety of leaf shapes, and phenology of leafing. There is a wide variety of ages of oaks, with many overmature specimens. Younger mature oaks are less common, and naturally regenerated oak saplings and planted specimens are also present. Natural regeneration of oak and hawthorn seems to have taken place within the last 10-15 years but recent damage to the saplings by rodents and/or deer seems to be severe in places.

Coleoptera collected here in the 1960's have been listed by Crowson and Hunter (1964) and Hunter and Johnson (1966) with additional species being listed by these collectors in manuscript lists on the NCC files. Dr. R.C. Welch has collected together all these records, to which have been added his own records from his visit in May 1977. A total of 160 species of Coleoptera are recorded from the park in a manuscript list by Dr. Welch, prepared for NCC in June 1977.

The epiphyte flora of the park is reputed to be poor due to atmospheric pollution. A survey is believed to have been made by Dr. M.D.R. Seaward in the mid 1960's.

Summary

A park was present at Grimsthorpe in the mid 16th century and it is believed that the remaining area of old oak parkland in the south of the landscape park originated as a monastic park. It is an excellent area of oak dominated parkland with many ancient and overmature trees. There are some recent plantings of oak and other species. It is known to be of importance for timber utilising Coleoptera (Crowson and Hunter 1964, Hunter and Johnson 1966). The epiphyte flora is reputed to be poor because of atmospheric pollution. Only part of the oak parkland area is included in the present SSSI.

References

Crowson, R.A. and Hunter, F.A. (1964) Some Coleoptera associated with old trees in Grimsthorpe Park, Lincs. Entomologist's mon. Mag. 100, 198-200

Hunter, F.A. and Johnson, C. (1966) Further notes on Coleoptera associated with old trees in Grimsthorpe Park, Lincs. Entomologist's mon. Mag. 102, 284.

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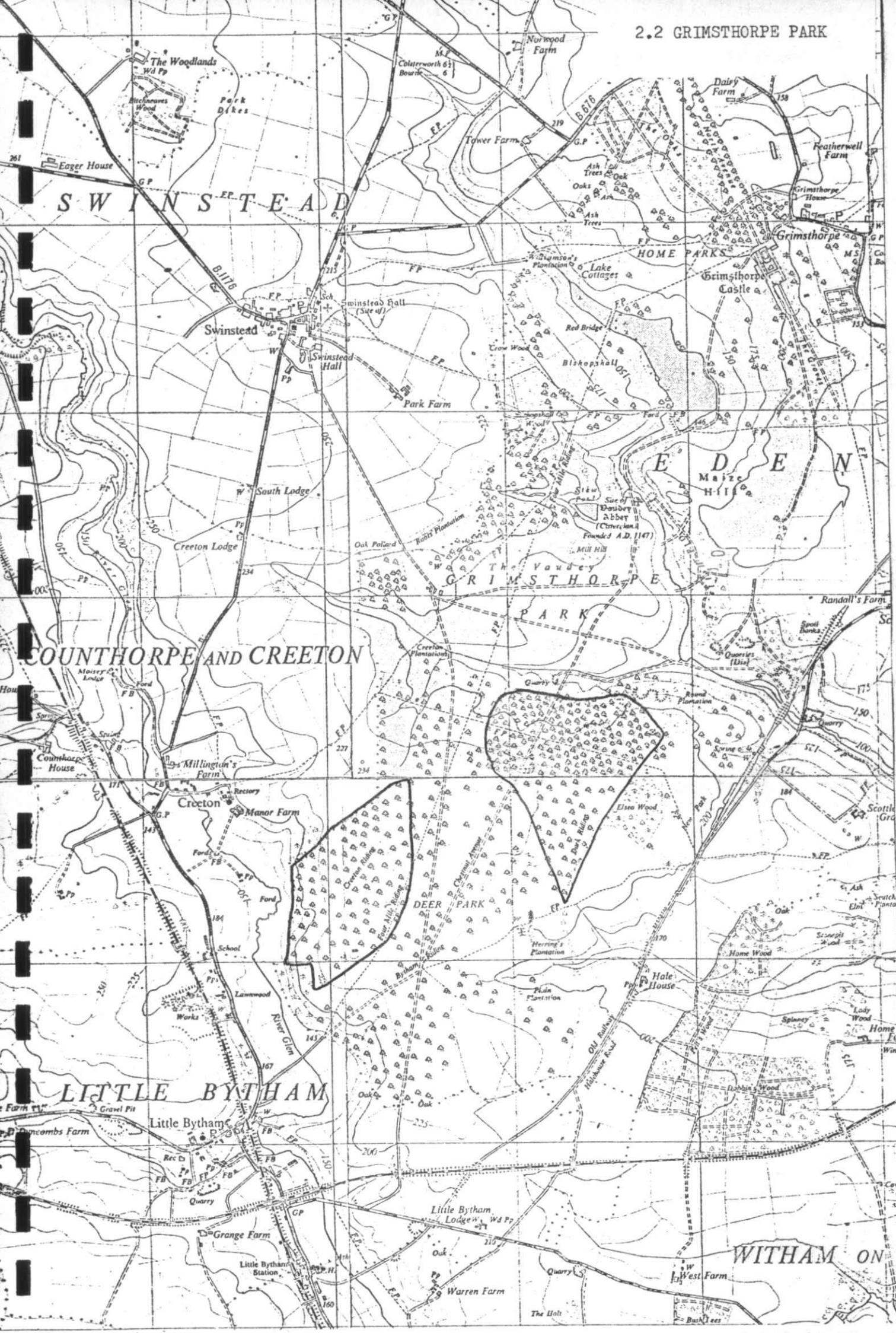

SWINSTEAD
COUNTHORPE AND CREETON
GRIMSTHORPE PARK
EDEN
LITTLE BYTHAM
WITHAM ON
DEER PARK
HOME PARKS
The Woodlands
Norwood Farm
Dairy Farm
Tower Farm
Featherwell Farm
Eager House
Park Dikes
Grimsthorpe
Grimsthorpe Castle
Lake Cottages
Swinstead Hall
Swinstead
Park Farm
South Lodge
Creeton Lodge
Bishopshall
Red Bridge
Crow Wood
Maize Hill
Mill Hill
Randall's Farm
Counthorpe House
Millington's Farm
Creeton
Rectory
Manor Farm
Elsea Wood
Home Wood
Hale House
Herring's Plantation
Lawnwood Works
River Glen
School
Gravel Pit
Duncombs Farm
Little Bytham
Grange Farm
Little Bytham Station
Little Bytham Lodge
Warren Farm
West Farm
Quarry
Oak
Ash
Ash Trees
Ford
Spring
Pp
FP
FB
GP
W
B1176
A6675

BIRKLANDS AND BILHAUGH, SHERWOOD FOREST

NOTTINGHAMSHIRE

National Grid reference : 43/6.6.

Visited : 6 and 7 August 1975

Owner : see below

Introduction

The Birklands and Bilhaugh S.S.S.I. covers 546 ha (1,350 acres) and includes a substantial area of heathland - Budby South Forest Heath. My survey was limited to the non-heathland areas. Although the two areas are structurally similar and probably have similar histories, the following report deals separately with the main Birklands/Bilhaugh area and with the detached portion of the Bilhaugh to the north of The Buck Gate. The present management and future conservation prospects of the two areas are different.

Ownership

The whole area is as far as I can gather owned by the Thoresby and Pierrepont Estates, Thoresby Park, Ollerton, Newark, Notts. Most of the Birklands is leased to the Ministry of Defence as part of the Dukeries Tactical Training Area. A small area is also leased to the Forestry Commission. Much of the eastern part of the Birklands is now the Sherwood Country Park administered by the Nottinghamshire County Council. Seventy ha have recently been sold to the N.C.B. for the site of a spoil tip for Edwinstowe Colliery.

BIRKLANDS AND BILHAUGH (MAIN AREA)

Land Use

At the time of my survey, from my observations and from the information gained from Mr. R.P.H. McFerran, Agent of the Thoresby and Pierrepont Estates, the area was under the following managements. All the areas are approximate - see map.

Budby South Forest Heath	-	174 ha	Heathland.
Assarts Wood/Seymour Grove	-	70 ha	Conifer plantation.
arable field	-	14 ha	Heathland (?), ploughed 1974.
Queen Oak Plantation	-	14 ha	Birch woodland.
Notts C.C. Country Park	-	80 ha	Contains a large area of oak/birch woodland.
Ollerton Assarts Plantation	-	24 ha	Conifer plantation.

National Coal Board	-	70 ha	Mainly birch scrub/woodland - to be used as spoil tip for Edwinstowe Colliery.
Area A	-	101 ha	Oak/birch woodland.

Description

Even in the short term only 181 ha in two areas are of any importance for the conservation of the ancient trees and oak/birch woodland. These are the area of the Notts C.C. Sherwood Country Park and the area A (see map). Of these it is probable that the value of the Country Park will be severely diminished within a few years owing to the public use and abuse of the area. The following description applies only to these two areas.

The woodland is open canopy oak and birch. There are four recognisable generations of oak with both species represented in all generations, but Q. petraea is slightly commoner in the western part.

Generation A - Ancient trees mostly over 4.5 m breast height girth but with a few specimens of up to 10 m (e.g. Major oak). The largest trees are almost all very stunted, branching low down and with much epicormic growth. Many trees are dead or carry only a few living limbs. Many of the senile and dead trees have a similar appearance - pot-bellied and gently tapering up the trunk. None are pollards (other than the occasional self-pollard) or are of coppice origin. It is possible to see how this form develops among the senescent trees (especially in the Buck Gate area) as the outer limbs drop off leaving the central leader.

Many of the dead trees are barkless and have clearly been dead for a long time, but are still standing, often in very exposed situations. Decay is probably slow, possibly as a result of the low rainfall (63 cm/annum), deep free draining acid soil and consequent poor soil fauna. Almost all the ancient trees are hollow, although not always accessible from ground level, with dry red mould heart rot.

It is difficult to age these trees but presuming a slow growth-rate because of the low rainfall and poor soil it is probably not unrealistic to estimate 100 years per 1 m breast height girth (excluding epicormic growths). This would place most of the ancient trees at between 400 and 600 years old and, allowing that some dead standing trees have probably been dead for over 50 years, there is probably a wide range of ages of dead, senile and senescent trees in the A generation.

Generation B - There is probably an interval of about 100 years to the oldest

trees of the B generation. These oldest trees are about 250 years old and most have a pollard-like form, branching at 3-5 m to give a broad crown with no central leader (unlike most of the A generation oaks).

However, most are about 150-175 years old and rarely exceed 2.5 m breast height girth. Almost all are maidens with good branchless trunks, having grown in groups. This suggests that in around 1800 some deliberate policy of planting or stock fencing to allow natural regeneration was carried out, possibly as a result of the 1790 Naval timber survey. The main area of circa 1800_trees is in the south-western corner.

Generation C - Trees of 50-100 years old. They are scattered throughout the area and could be confused with stunted B generation trees in some places. The C generation is not as plentiful as the B generation.

Generation D - Saplings of recent origin are scattered widely over the site wherever there is a break in the canopy.

Succession

There are good prospects for succession of oak, but there is a substantial age gap between the main groups of the A and B generations. The B generation may take another 100-150 years to attain the proportions and condition of the A generation, by which time many of the latter may have disappeared. It is clear that the ancient oaks are a remnant of a continuously regenerating natural population which has contained overmature trees for many centuries. It is probable that the proportion of ancient trees has fluctuated during that time and that the predicted decline in the number of ancient trees has happened before.

Management and Conservation

Several factors are already threatening or are likely to threaten the conservation value of the area. 1) The lowered water table (due to water extraction from the Bunter Sandstone) is apparently affecting the growth rate of the oaks and causing die back. Although this is causing the premature death of the A generation trees and possibly some B generation trees, it is probable that the majority of the B, and subsequent generations, will develop having adapted to this lower water table, but may have an overall shorter life-span as a result. 2) The Country Park has the dual effect of concentrating the already considerable public pressure in part of the Birklands near the Major (or Queen) oak. However, the Country Park is not only formalising an existing situation, but it is by its very nature, likely to attract additional visitors to the area, if only by providing the extensive car parks and other facilities beside the B6034.

3) Whether it is legal or not, the public seem to have general access to the whole of the Birklands oak/birch woodlands (Area A). Unsupervised use of these areas is already having visible effects, erosion of paths, compaction of the soil along paths and burning of large areas of bracken with resultant loss of birch saplings (which give shade to fallen dead wood) and some older oaks. The interiors of some old hollow trees seem to have been fired in recent years.

It is suggested that to maintain the appearance of at least some of the Birklands, a complete moratorium on public access, forestry and timber extraction, and even collecting by entomologists should be made on parts of Area A. This would almost certainly be heralded as impractical, but it is probable that the public will have destroyed the "Old Sherwood" appearance of the Country Park area by the end of this century (if not earlier). Pressure to use the whole of the Birklands as a country park should be resisted unless a large area can be designated a no access and non-interference area, otherwise it is probable that the whole of the remaining 181 ha of oak/birch woodland of the main Birklands/ Bilhaugh area will be destroyed within 50 years.

BILHAUGH (BUCK GATE)

Description

This is a detached portion of the S.S.S.I. of about 50 ha. Oak/birch woodland over bracken with a small area of open grass heath, a small conifer/ beech/oak plantation and an ancient chestnut avenue containing both Castanea sativa and Aesculus hippocastaneum.

The oak/birch woodland is very similar to that of the Birklands area, but with some possibly taller old oaks and more stunted younger oaks. Very few birch appear to be more than 50 years old and most are considerably younger suggesting some recent invasion.

Four generations of oak are present:

A) - Ancient trees, many of which are dead or have only a few living branches. There are a few magnificent ancient oaks of over 4.5 m breast height girth which appear to be vigorous and healthy. These may be contemporary with the 520 year old tree felled in 1960 in this area (Barrow, Peterken & Welch report, 1969).

B) - Trees of between 150 and 250 years old. It is difficult to estimate the age of this generation group because many trees are obviously stunted by edaphic factors. However, an older generation of mature trees is present at a low density.

C) - Trees of between 50 and 150 years old. This generation group is widespread, dominant in places to form a closed canopy, especially in the south eastern quarter. Trees are rather small in many cases and exhibit the growth form found in the A generation here and in the main area.

D) - Naturally regenerated saplings are quite plentiful in places, mainly in the areas of the A and B generations.

Birch, mainly Betula pendula, with a little sallow (Salix caprea), sycamore and holly, is widespread but tends to be present where the C and D generations of oak are absent. Hawthorn and elder are commonest on the western edge, but also occur infrequently throughout the area.

The chestnut avenue contains some ancient sweet chestnuts which must be over 250 years old. The horse chestnuts appear to be younger and there are also sweet chestnuts of about 100 years in the two lines of trees.

The small plantation (Corsican pine/larch/beech/oak) is probably about 20 years old and has been thinned once. The beech and oak are not thriving.

Succession

The succession of oak seems to be assured although there are perhaps rather few B generation trees. However, many of the A generation are alive with almost complete crowns and should survive longer than most of the A generation trees in the main area.

Management and Conservation

The area is maintained by the Estate as a preserved area, the only use being for game cover. There is no public access although two war-time metalled rides run through the area and it is used by the Estate for through access. There is a good range of age classes of oaks growing in more closed conditions than in the main area. Although small in area (50 ha) this part probably offers the best long-term prospects for retention of the habitat.

Summary

Within the Birklands and Bilhaugh S.S.S.I. only 230 ha of typical oak/birch woodland remain. A Notts County Council Country Park covers 80 ha of this area in the Birklands, and public facilities here are likely to reduce the value of this sector in future years. The remaining 101 ha of the Birklands are probably the best representative example of old Sherwood, but must be threatened by proximity to the Country Park. The Bilhaugh (Buck Gates) area contains some

exotic tree species, but generally the prospects seem better here, because there is no public access and also a good range of age classes of oaks, some in fairly closed canopy. However, being only 50 ha, the area may not be viable as an isolated unit.

Sherwood is a classic area for many of our rarest Coleoptera associated with dead wood (Carr 1916, 1935) and is probably of international importance, at least on the basis of past records. There is an immediate need for some positive conservation action here to preserve at least the remoter parts of the Birklands from further damage through unrestricted public access. The Bilhaugh (Buck Gates) area is at present actively preserved by the Estate.

References

Barrow, M.D., Peterken, G.F. & Welch, R.C. 1969. Birklands and Ollerton Corner (Bilhaugh) S.S.S.Is, Sherwood Forest, Nottingham. Typed report. 2 pages.

Carr, J.W. 1916. The invertebrate fauna of Nottinghamshire. Nottingham.

Carr, J.W. 1935. The invertebrate fauna of Nottinghamshire, first supplement. Nottingham.

Postscript

Since the above report was written, several developments have highlighted the conservation problems at the Birklands. The Notts County Council Country Park has, or is going to extend into most of the S.S.S.I. (except the Buck Gates area) following the withdrawal of the M.O.D. from this sector.

N.C.C. are well aware of the position of the County Council and their requirements for ecological advice. In January 1977 Dr. Eric Duffey and I discussed the importance and problems of the Birklands with Dr. Vincent and Mr. Flinton, of the Planning and Transportation Department of the County Council, at the request of that department.

Subsequently the Department and N.C.C. have entered into negotiations and are liaising over a survey of the fauna of the area, spearheaded by Mr. John Crocker.

The following appendix was compiled for the meeting with Dr. Vincent and Mr. Flinton.

Appendix

SHERWOOD FOREST, NOTTS - COLEOPTERA

The following species of Coleoptera have been recorded from the Forest, mainly in Carr (1916, 1935). All these species are rare or local and are considered to be reliable indicators of ancient forest relic areas where continuity of overmature deciduous tree cover, especially oaks, has been present.

SCYDMAENIDAE

Euthia linearis Muls

Stenichnus godarti (Latr.)

PTILIIDAE

Ptenidium gressneri Er.

P. turgidum Thoms.

PSELAPHIDAE

Plectophloeus nitidus (Fairm.)

Batrisodes venustus (Reichb.)

HISTERIDAE

Plegaderus dissectus Er.

Abraeus granulatus Er.

LYMEXYLIDAE

Hylecoetus dermestoides (L.)

ELATERIDAE

Elater cardinalis Schiodte

Procraerus tibialis (Lac.)

BUPRESTIDAE

Agrilus pannonicus (Pill. & Mitt.)

HELODIDAE

Prionocyphon serricornis (Mull.)

SCRAPTIIDAE

Scraptia fuscula Muell.

ALLECULIDAE

Prionychus fairmairei Reiche

Pseudocistela ceramboides (L.)

CERAMBYCIDAE

Leptura scutellata F.

CHRYSOMELIDAE

Cryptocephalus querceti Suffr.

RHIZOPHAGIDAE

Rhizophagus oblongicollis (B. & H.)

CUCUJIDAE

Pediacus dermestoides (F.)

LATHRIDIIDAE

Enicmus consimilis Mann.

Corticaria alleni Johnson

MYCETOPHAGIDAE

Mycetophagus piceus (F.)

COLYDIIDAE

Teredus nitidus (F.)

ANOBIIDAE

Anitys rubens (Hoff.)

PTINIDAE

Ptinus subpilosus Sturm.

OEDEMERIDAE

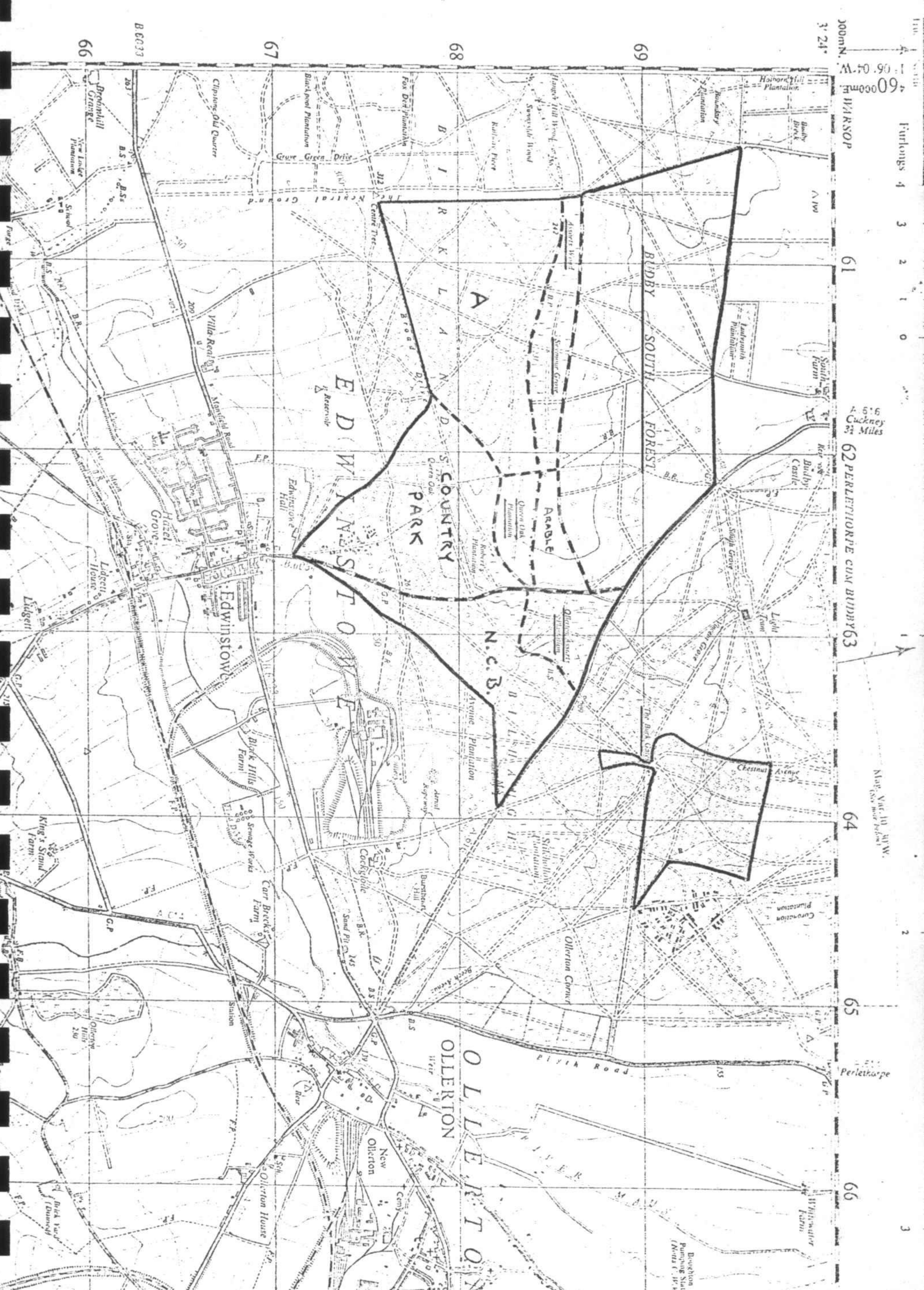
Ischnomera sanguinicollis (F.)

SERROPALPIDAE

Phloeotrya vaudoueri Muls.

Sherwood is clearly an important locality for Coleoptera associated with "dead wood". It is probably of international importance, but unlike Windsor Forest, New Forest and Moccas Deer Park, it is not the sole recorded British locality for any species. Probably the rarest species is Prionychus fairmairei which is only known to occur at one other British locality - Arundel Park, Sussex. F.A. Hunter (A.D.A.S. Lawnswood, Leeds) has recorded all or most of the rarer species of Sherwood within the last decade. However, not all the records were from the Birklands and Bilhaugh. Hunter and probably Peter Skidmore (Doncaster Museum) know the Coleoptera of Sherwood as well as anyone, and they report that several localities including Best Wood Park, Burnstump Hill, Clumber Park, Newstead Abbey, Thoresby Park and Welbeck Park provided refuges for some of the rarer Coleoptera. However, both agree that the Birklands and Bilhaugh is the single most important area.

Paul T. Harding


A
COUNTRY PARK
ARABLE
N.C.B.
BUDBY SOUTH FOREST
Edwinstowe
Ollerton
New Ollerton
Blyth Road
Warsop
Perlethorpe cum Budby
Cuckney 3½ Miles
15,000
18,000
21,000
24,000

THE INVERTEBRATE FAUNA OF THE MATURE TIMBER HABITAT

SURVEY OF AREAS

3. North-East England Region

The following areas have been visited as part of a national survey commissioned by N.C.C. from I.T.E. The background and sources of this survey are outlined in the contract report of March 1976. Some areas were reported on in detail. These reports are included herewith in numerical order according to the following list. The remaining areas have, for various reasons, not warranted detailed reports. Summary descriptions of them have been made and included in either of the contract reports (March 1976 or March 1977) where the descriptions appear in the numbered "Area Descriptions" section.

All visits were made by P.T. Harding, almost invariably with the prior permission of the owner or his agents (except in the case of public access areas). All opinions expressed are related to the conservation value and potential of a given area for the invertebrates of mature and overmature trees, dead wood and associated biotopes.

Area, County	Date visited	Report number/ Area description
Duncombe Park, North Yorkshire	July 1976	3.1/1977-5
Hack Fall Valley, North Yorkshire	August 1975	3.2/1976-15
Rye Valley Woods, North Yorkshire	July 1976	1977-6
Studley Royal Park, North Yorkshire	July 1975	3.3/1976-16
Billsmore Park and Grasslees Burn Woods, Northumberland	July 1976	3.4/1977-7
Holystone Burn Oaks, Northumberland	July 1976	1977-8
Upper Warks Burn, Northumberland	July 1976	1977-9

DUNCOMBE PARK

NORTH YORKSHIRE

National Grid reference : 44/5683

Visited : 21/22 July 1976

Owners : Duncombe Park Estate (Lord Feversham). Agent : Mr. I.N. Saggers

Duncombe Park lies astride Rye Dale between Rievaulx and Helmsley. The valley has a flat flood plain which is now mainly improved pasture. The valley sides rise up on steep banks where the river has cut through a series of soft Oolite strata with Corallian strata and Oxford clay on the plateaux above.

The original park extended over a wide area of open moorland (the Red Deer Park) to the south west of Helmsley. This moorland is dissected by some deep north-east facing "gills" which remain as isolated areas of semi-natural broad-leaved woodland in areas which are now mainly commercial forests. Some other areas of broad-leaved woodland remain on the south side of the Rye valley, the most notable of which is Castle Hill (see below).

The landscape park on the north side of the valley has been modified for modern forestry and agriculture, with broad-leaved woodland remaining on the upper slopes in Park Plain Wood, in Terrace Bank Wood, and the adjacent pleasure grounds, and in a small area immediately north of Duncombe House (see below).

Deer Park Gills

Although these areas proved to be of little importance for dead wood fauna they are of importance as examples of steep, often vertical, sided gorges with broad-leaved woodland and several were entered. I can report that Ship Gill, Hollins Gill, Sword Gill, Castle Gill and Beech Gill remain in a relatively undisturbed state, some have considerable areas of rock face and boulder screes. Small-leaved lime is common in these areas. They are almost certain to be rich in bryophytes and lichens.

Castle Hill

This is an isolated knoll of Lower Limestone (Middle Oolite) which is covered with open canopy oak woodland. The oaks are ancient stunted trees with the appearance of pollards. Some are hollow and all have dead wood in the crown. Fallen limbs are also plentiful. There are also a few overmature small-leaved limes and some hawthorns. The hill is so remarkably different from anywhere else seen in North York Moors valleys that its potential importance, despite the small area,

should not be overlooked.

The south bank of Rye Dale between Castle Hill and Mill Bank Wood is in the process of being planted with conifers, but some areas remain undisturbed open bracken heath with ancient oaks and a few limes. Even in the young plantations, the ancient oaks appear to be being left and there is some oak regeneration in the area, but it is all young.

Park Plain Wood

Mature oak/beech plantation of about 120+ years old which is being selectively felled. Well managed commercial forestry with little dead wood.

Terrace Bank Wood

This is beech/oak/ash/lime and elm high forest plantation of about 200 years. The tallest T. x vulgaris in Britain is in this area (Mitchell - Field Guide to Trees, Collins 1974). The adjacent Park Hill Wood which was similar was being felled at the time of my visit. The pleasure grounds on the plateau above Terrace Bank are mainly beech and sycamore high forest of a similar age. There are few dead or dying trees and dead limbs are scarce.

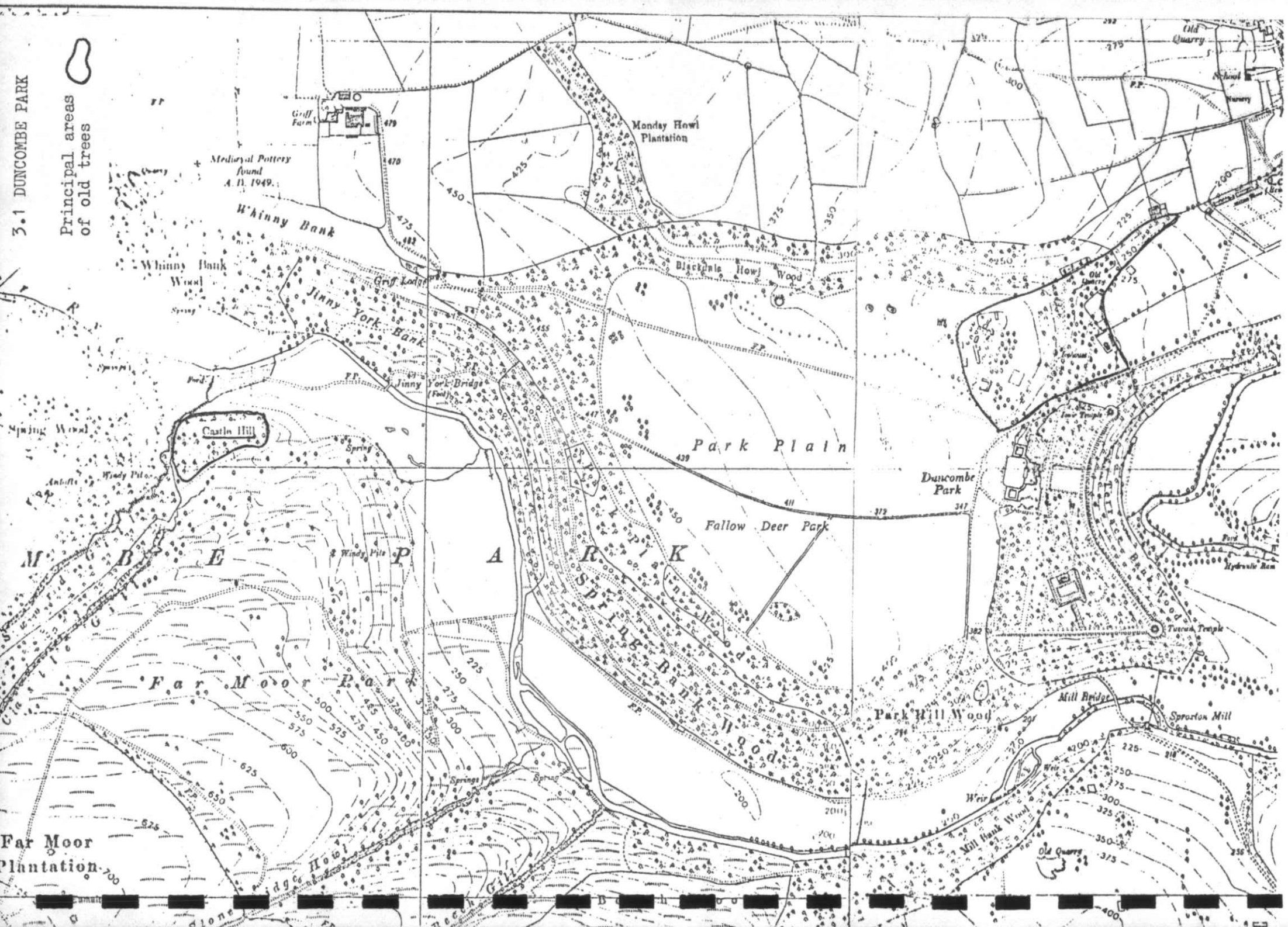
Area north of House (604834)

Mixed aged oak woodland with about 20 ancient pollards mainly near roadway on south side of a ravine. There are also a few old oak pollards between this area and Helmsley Castle. Most of the woodland oaks are circa 200 year maidens (3 m breast height girth), with some of 100 years. There are also some circa 200 year beech and a few elm and lime. There is a lime (Tilia x vulgaris) grove on NW side of western ravine. More open oak parkland around buildings on west side. A rather disturbed area in which most dead wood appears to be cleared fairly rapidly.

Summary

Duncombe Park was a favoured locality for several rare Coleoptera, but there are few if any recent records. Two areas are of particular interest for dead wood fauna. Castle Hill, and the southern bank of Rye Dale to the east of it, still carry some ancient oaks and small-leaved limes with ample dead wood. This type of parkland may have covered more of the Red Deer Park in the past. North of Duncombe House is an area of oak dominated woodland with about 20 ancient oak pollards as well as younger trees. Castle Hill appears to have a unique woodland structure in Rye Dale and as far as I know, in the rest of the North York Moors valleys. The gills of the Red Deer Park are also probably of ecological importance, but not for dead wood fauna. The rest of the estate is mainly commercial forestry and ornamental plantations.

Paul T. Harding


3.1 DUNCOMBE PARK
Principal areas of old trees
Griff Farm
Medieval Pottery found A.D. 1949.
Whinny Bank
Whinny Bank Wood
Griff Lodge
Jinny York Bank
Jinny York Bridge (Ford)
Castle Hill
Spring
Windy Pits
Monday Howl Plantation
Blackpits Howl Wood
Park Plain
Duncombe Park
Fallow Deer Park
Mowbray Park
Far Moor Park
Spring Bank Wood
Jinny Wood
Park Hill Wood
Mill Bridge
Sproxton Mill
Weir
Mill Bank Wood
Old Quarry
Tuscan Temple
Hydraulic Ram
Far Moor Plantation
Springs
Beech Gill

HACK FALL VALLEY

NORTH YORKSHIRE

National Grid reference : 44/234773

Visited : 1 August 1975

This site was recommended by Dr. Francis Rose for inclusion in the preliminary list of potential sites. It was visited for about one hour. The woods on the west side of the River Ure were examined between the old West Riding/North Riding boundary and the valley of the tributary stream running down from Grewelthorpe Village.

The River Ure runs through a steep-sided gorge cut through what is presumably Millstone Grit. The gorge is about 4 kilometres long, and is at its narrowest at the area of Hack Fall. The woodland on the west bank at Hack Fall is on a slope rising from 70 m to 160 m altitude over some 250 m distance. Soils are loamy and flushing along the slope is quite common with numerous small springs and wet patches within the wood. Some slopes are steep with scattered large boulders. The stream from Grewelthorpe runs through a steep sided rocky ravine which is rich in bryophytes.

The woodland is wych elm/ash/hazel coppice, uncut for at least 50 years but still retaining a multi-stemmed structure. There is little sign of there having been standards growing with the coppice. Other canopy forming species are small-leaved lime and bird cherry with sycamore invading as maidens from the time of last coppicing. Both sycamore and ash are regenerating freely. Along the side stream, beech, horse chestnut, a few conifers and Rhododendron have been planted.

In the flat areas beside the river, alder coppice predominates growing on a boulder stream substrate and enmeshed in numerous log-jams of driftwood deposited by the river when in spate.

Although the ground flora seems at the time of my visit to be dominated by bramble and dogs mercury, this is to be expected for a visit in August. The spring flowering ground flora is clearly very rich, with the added interest of wet flushes, springs and a rocky ravine.

Several apparently well used footpaths run through the wood and a ruined stone gazebo, dated 1730, stands on a bluff above the most spectacular part of the gorge. The view from the gazebo is now obscured by trees.

Dead Wood

Dead wood is plentiful throughout the wood, being mainly elm and ash, but as few trees or stems exceed 1.5 m breast height girth there is probably little of interest for the fauna associated with the dead wood of ancient trees. It is also probable that the site was managed as simple coppice rather than coppice with standards. The site is very damp and dead wood appears to decay rapidly due to fungal activity. Some evidence of the activities of the commoner dead wood species of Coleoptera was noted.

Conservation

Although only a small portion of this gorge was seen it is probable that this is the most valuable part, being the steepest and deepest slope, and it still retains the natural tree cover. Other parts of the gorge seem to have been planted with conifer or mixed plantations, although the Common Wood/Mickley Barras stretch may be worth examination.

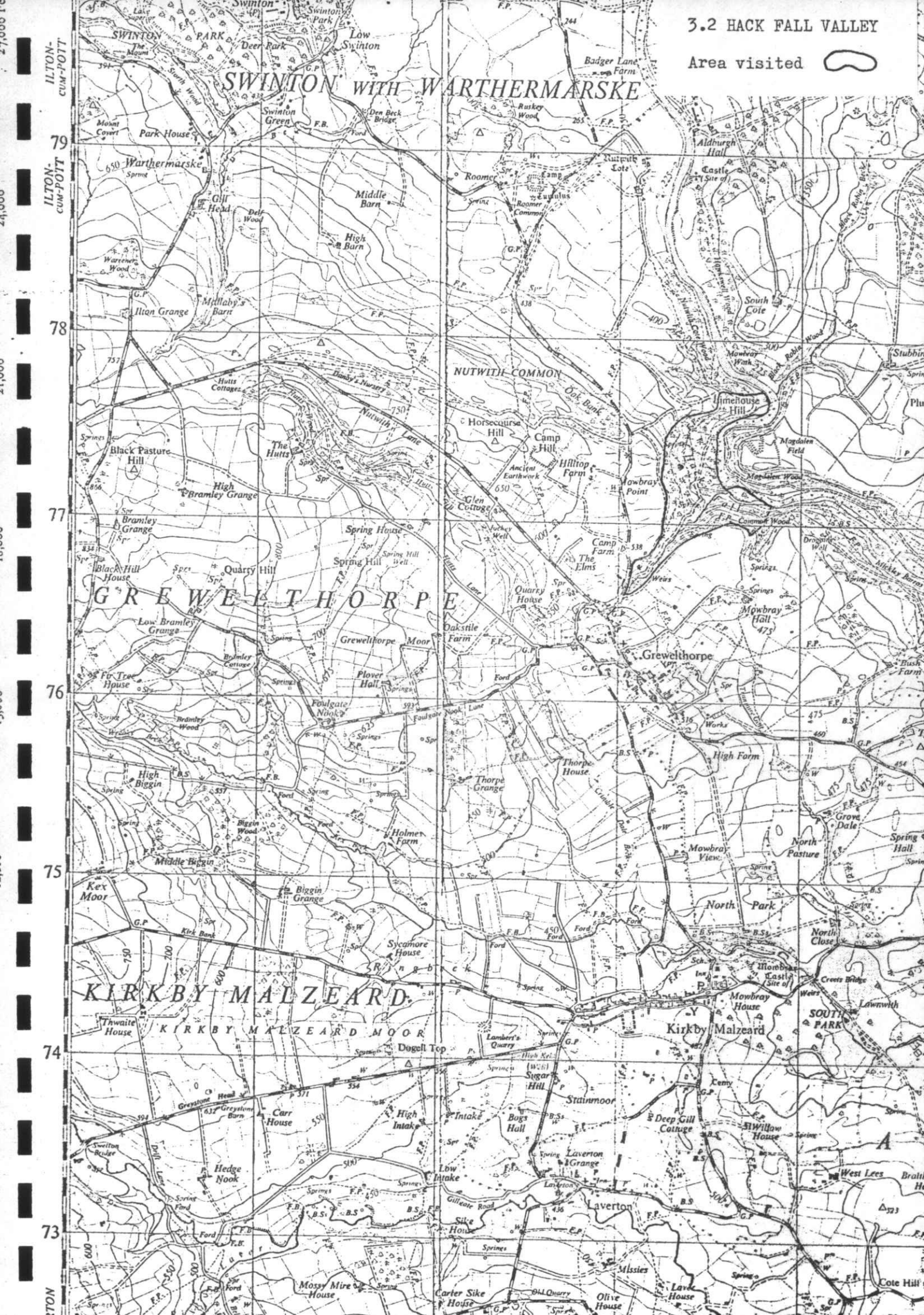
A cursory examination of several other gorge localities in the area shows that most have been reforested in the last 20 years. Thus the Hack Fall Valley is probably one of a declining number of such woods in the area.

It is a good example of wych elm/ash/hazel woodland with small-leaved lime, bird cherry and holly, although sycamore is invading in places. The ground flora is rich and would repay further recording. The bryophyte/lichen flora appears rich with total coverage of boulders, rock faces and tree trunks. Dr. Rose presumably could supply a list for the site. There is a long natural geological exposure along the east bank of the Ure below Magdalen Wood.

Summary

Mainly elm/ash/hazel coppice neglected for over 50 years. In places dead wood derived from fallen coppice stems is abundant. The area is very damp, and wood appears to decay rapidly. The area is rich for epiphytes and may be of some value for dead wood invertebrates associated with small wood.

Paul T. Harding


3.2 HACK FALL VALLEY
Area visited
SWINTON WITH WARTHERMARSKE
GREWELTHORPE
KIRKBY MALZEARD
KIRKBY MALZEARD MOOR
NUTWITH COMMON
Swinton
Swinton Park
Low Swinton
Deer Park
Badger Lane Farm
Ruskey Wood
Den Beck Bridge
Swinton Green
Mount Covert
Park House
Warthermarske
Gill Head
Delf Wood
Middle Barn
High Barn
Ilton Grange
Millahy's Barn
Hutts Cottages
Dunby's Nursery
Nutwith Lane
Black Pasture Hill
The Hutts
High Bramley Grange
Bramley Grange
Black Hill House
Quarry Hill
Spring House
Spring Hill
Low Bramley Grange
Grewelthorpe Moor
Oakstile Farm
Plover Hall
Foulgate Nook
High Biggin
Thorpe Grange
Holmes Farm
Middle Biggin
Kex Moor
Biggin Grange
Sycamore House
Thwaite House
Dodell Top
Greystone Head
Greystone Barn
Carr House
High Intake
Hedge Nook
Low Intake
Sike House
Mossy Mire House
Carter Sike House
Olive House
Laverton
Laverton Grange
Gilgate Road
Sugar Hill
Stainmoor
Bogs Hall
Deep Gill Cottage
Willow House
Kirkby Malzeard
Mowbray Castle
Mowbray House
Mowbray Point
Mowbray Hall
Mowbray View
Camp Farm
The Elms
Camp Hill
Horsecourse Hill
Hilltop Farm
Ancient Earthwork
Glen Cottage
Quarry House
Thorpe House
High Farm
Grewelthorpe
Aldburgh Hall
Castle (Site of)
Roomer Camp
Tumulus
Roomer Common
South Cote
Lime House Hill
Magdalen Field
Magdalen Wood
Oak Bank
Common Wood
Mowbray Walk
Black Robin Wood
Nutwith Cote Wood
Dropping Well
Judkey Well
Spring Hill Well
Mickley Barton
Bush Farm
Grove Dale
North Pasture
Spring Hall
North Park
North Close
Crosts Bridge
Lawnwith
SOUTH PARK
West Lees
Cote Hill
Lave House
Missies
Old Quarry
Foulgate Nook Lane
Kirk Bank
Gilgate Road
Dale Lane
Swelton Bridge
Ilton-cum-Pott
SWINTON PARK

STUDLEY ROYAL PARK

NORTH YORKSHIRE

National Grid reference : 44/282697

Visited : 31 July 1975

Owners/Managers : County of North Yorkshire, County Hall, Northallerton, N. Yorkshire, DL7 8AD. Contact : County Valuer & Estates Officer, Mr. P.J. Harrison.
Deer Keeper : H.J. Kemp.

Studley Royal Park lies on undulating ground to the south west of Ripon in the parish of Lindrick with Studley Royal and Fountains. The present deer park is part of a large area enclosed in the early 1600s. The early deer park and the wooded valley east of Fountains Abbey were clearly taken into a single ownership in the early 18th century and the River Skell, its gorge and the adjacent woods were "ornamentalised" in the Italian style sometime in the mid 18th century. The park (including the Fountains Abbey valley) seems to have remained in private hands until 1966 when it was bought by the then West Riding County Council. Ownership was transferred to the new North Yorkshire County Council in 1974.

The public is admitted to the whole of the deer park and has access on foot through the wooded gorge of Fountains Abbey. There is a car park just to the west of the lake, and cars can drive along the central road between the car park and Studley Roger village. Parking along the road through the park is not permitted.

There is evidence of ridge and furrow in parts of the park, most obvious at points 1 and 2 (see map). This suggests that the area was probably originally enclosed from farmland, rather than being a formal enclosure of a former monastic park. Most of the oldest trees date from the 18th century landscaping of the park although some oaks are clearly older and may be the remnants of late medieval boundary marker trees. The park contains the remains of the 17th century Studley Manor and several later (18th and 19th century) constructions including a church, icehouses and an open courtyard house. Most of the present deer park was ploughed in the Second World War, and is now improved pasture which is limed annually.

The present deer herd comprises Red : 100, Fallow : 200, Sika : 14 and 3 penned Muntjac. The deer range over an area of 300+ acres. The whole park is undulating with scattered single trees, clumps and lines. There are two exceptions:

The Dale and the gorge of the River Skell between the lake and the eastern boundary of the park (see below).

My survey was limited to the present deer park, including the Skell gorge east of the lake, and to Mackershaw Park. The woodlands between the deer park and Fountains Abbey are mainly recent plantations of conifers and mixed conifers/ hardwoods.

Open Park

The landscape plantings of the mid 18th century that still remain are mainly of sweet chestnut, oak, beech and lime. Limes are mainly in the long grove from the Studley Roger Lodge to the church. Beech is scattered throughout the park as single trees and clumps. Sweet chestnuts remain as large but decrepit single trees whereas the oaks of this generation are mostly healthy, mainly as scattered single trees except for the "Oakline" which has been partly felled. There seems to have been some considerable felling of mature oaks about 40 years ago, presumably for timber. The cut stumps remain.

The only trees older than 300 years are oaks, some of which are hollow or contain heart rot. An attempt to halt the heart rot of one of the largest trees (3 on map) has left it with a 2 ft x 1 ft hole in the trunk where the treatment operators gained access to the interior.

Younger trees are scattered throughout the park, with small numbers of sweet chestnut, beech and ash of between 100 and 200 years old and oak and sweet chestnut of around 100 years. Recent plantings of single specimen trees (about 10 years old) seem to have favoured beech with a few oak and elm.

The Dale and the Gorge.

The Dale is a deep dry gorge of apparent natural origin. It is planted with horse chestnut and a few limes and sycamore. Most of the trees are 18th century or early 19th century in origin.

The Gorge contains a line of sweet chestnuts contemporary with the oldest in the park. Some almost complete ring counts were obtained here and give a consistent age of about 210 years for trees felled within the last 10 years. There are scattered beech and areas of beech woodland along the sides of the gorge, mostly about 100-150 years old.

Mackershaw Park

Part of this area belongs to the estate but is leased as grazing and arable to a local farmer. There are some old oaks (350+ years old) but most of the oaks are about 200 years old. The trees are almost exclusively oak.

Succession and Dead Wood

The succession of beech seems to be reasonably assured with continued stocking at much the same density throughout the park resulting from the recent plantings. All the other species have serious generation gaps with no, or almost no recent plantings. It seems to have been the policy of the West Riding County Council to remove all dead and dying trees, fallen trees and branches and even to cut off dead branches from living trees and to treat cut ends, scars and hollow trees to protect them against decay. A great deal of expensive cosmetic tree surgery was done during the 8 years of the West Riding C.C. ownership. This policy seems to be continuing under the North Yorkshire C.C. although a few recently fallen limbs were observed during my visit. Sound timber is sold, but much of the dead wood seems to be burned in situ leaving ugly fire sites in the grassland. From the timber fauna viewpoint this practice is disastrous. Only in the Dale is any quantity of dead wood to be found; the area having been used for dumping a variety of chestnut and lime butts and roots within the last 10 years.

Evaluation

It is probable that little of Studley Royal Park is ancient in origin which must considerably detract from any potential it may have for the fauna of dead wood. Apart from this, in recent years the management of the park has been such that dead wood has been systematically eliminated and it seems probable, talking to a Council representative, Mr. Peet, that this will continue. Given sufficient funds, Mr. Peet anticipated that many of the older trees would be felled and young trees planted in the near future. In view of these factors it is unlikely that Studley Royal Park would be of major importance for the conservation of the fauna of the mature timber habitat. However, P. Skidmore (pers. comm.) reports that the rare beetle Anitys rubens (Coleoptera : Anobiidae) is recorded from here, probably the most northerly locality in Britain. I am in no position to judge the epiphyte flora of the park, but I gather from Dr. Francis Rose that it does have elements of interest.

Management Suggestions

These are offered in an attempt to maintain the appearance of the park and to attempt to enhance its wildlife value.

1) To retain dead and dying trees, fallen trees and branches and dead limbs in trees where this would not seriously endanger the public..

2) To establish a new generation of oak, preferably with seed from the oldest trees in the park and to increase the stocking of oak.

3) To limit "felling and replacement" to the oldest sweet chestnuts some of which are senile.

4) To limit cosmetic tree surgery to dangerous trees. The activities of the tree surgeons on many of the limes is to be deplored because they seemed to be unaware of the natural growth form of the species, removing all the pendulous side branches!

5) Any further encroachment of conifer plantations or arable land into the park should be resisted.

6) The deer herds appear to be flourishing despite the harassment they must get from the public. Some small areas of neglected pasture (thistles, nettles and especially planted hawthorns) would provide refuge for the fawns. Fallen branches were almost essential for bucks and stags to fray their antlers against. The retention of a few fallen limbs would save much of the present damage to fences and trees caused by bucks and stags.

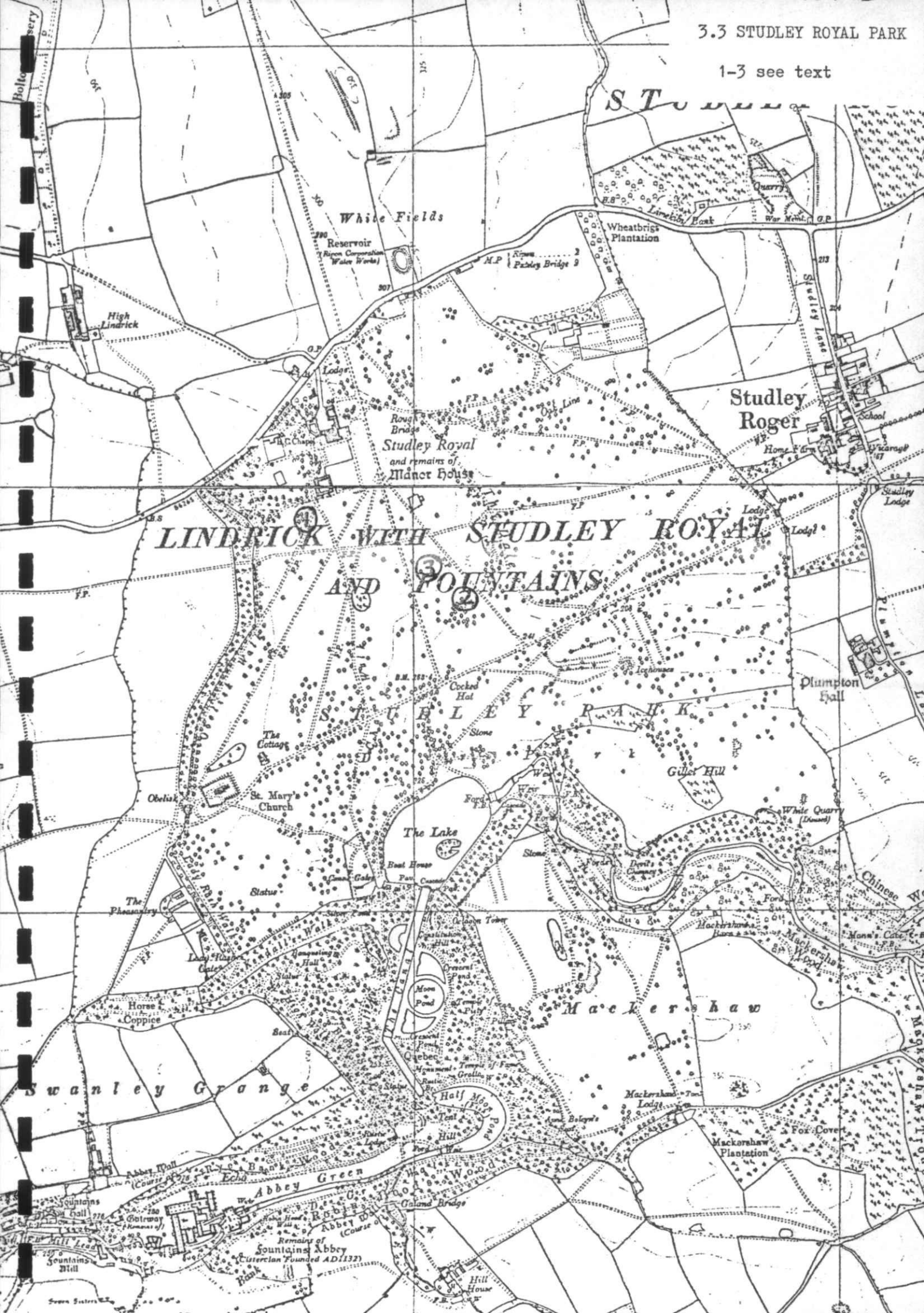
Summary

This is a public open space, having been owned by the West Riding and now N. Yorkshire Council for 10 years. In that time extensive tree surgery to most of the older trees, and removal of old trees has probably diminished much of the potential for dead wood fauna. Old oak, beech and sweet chestnut are still plentiful but Council policy is to remove old trees and replant with young trees. Studley Park was enclosed around 1600 probably mainly from agricultural land. There was extensive landscaping here in the 18th and 19th centuries. It is known to be of interest for epiphytic lichens.

Paul T. Harding

3.3 STUDLEY ROYAL PARK

1-3 see text



BILLSMORE PARK AND GRASSLEES BURN WOODS

NORTHUMBERLAND

National Grid reference : 35/9496

Visited : 8 July 1976

Owner : T.W. Carruthers, Dunns Farm, Elsdon, Newcastle-upon-Tyne

Billsmore Park lies in a small valley leading down to Grasslees Burn. Woodland occupies the lower slopes of the valley, the stream side, and extends up a series of small tributary valleys. However, much of the park is open acid grassland on peaty soils with much Juncus invasion. The woodland near the stream is dominated by alder, with a few stream-side ash. On the higher, better drained soils, and on rocky outcrops there is birch woodland, and in places oak with some hazel. The oaks are old for the area (circa 200 years) and appear to be mainly overgrown coppice or occasionally mature maidens. Many of the ash are senescent and the alders range from senile trees to naturally regenerated saplings.

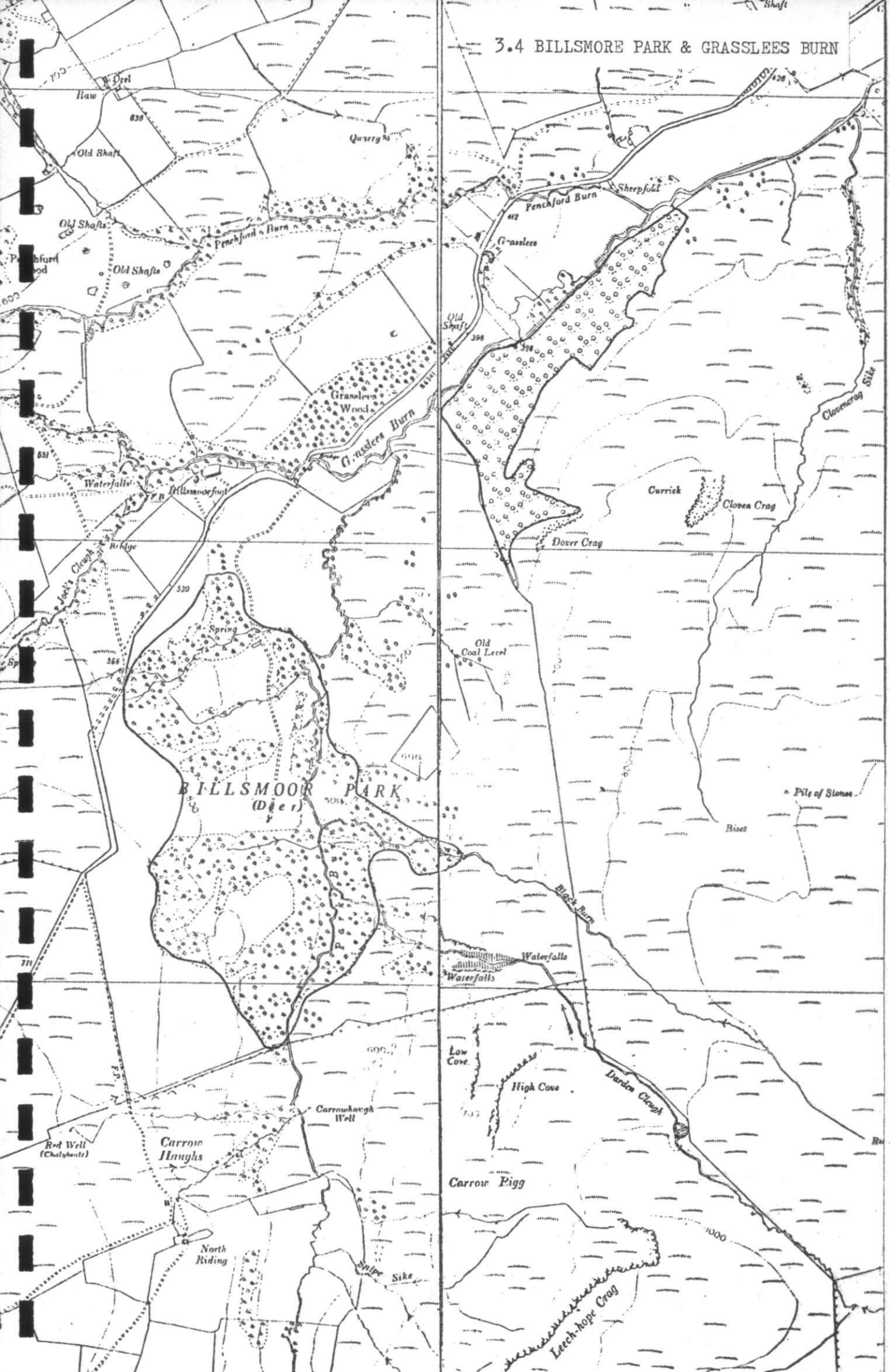
The area is grazed with sheep and, except for alder in the less accessible places, regeneration is absent. Dead wood, mainly birch and alder is quite plentiful, but little evidence of insect activity in it was observed.

The woods alongside the road (B6341) and Grasslees Burn are dominated by oak, most of which is mature and appears to be fairly even aged. Dead wood in this area appears to be scarce.

Summary

Billsmore Park and the Grasslees Burn Woods contain stands of mature and overmature oak and alder, with some birch and ash. Dead wood is quite plentiful in Billsmore Park, but in both areas evidence of attack by insects is scarce. The areas are believed to be of great interest for epiphytes.

Paul T. Harding


3.4 BILLSMORE PARK & GRASSLEES BURN
Shaft
Raw
Old Shaft
Quarry
Old Shafts
Penchford Burn
Old Shafts
Sheepfold
Penchford Burn
Grasslees
Old Shaft
Grasslees Wood
Grasslees Burn
Clovenrag Sike
Waterfalls
Billsmoorfoot
Currick
Cloven Crag
Dover Crag
Bridge
Jack's Clough
Spring
Old Coal Level
BILLSMOOR PARK
(Deer)
Pile of Stones
Riset
Black Burn
Waterfalls
Waterfalls
Low Cove
High Cove
Darden Clough
Carrowhaugh Well
Red Well (Chalybeate)
Carrow Haughs
Carrow Rigg
North Riding
Snipe Sike
Leech-hope Crag

THE INVERTEBRATE FAUNA OF THE MATURE TIMBER HABITAT

SURVEY OF AREAS

4. North-west England Region

The following areas have been visited as part of a national survey commissioned by N.C.C. from I.T.E. The background and sources of this survey are outlined in the contract report of March 1976. Some areas were reported on in detail. These reports are included herewith in numerical order according to the following list. The remaining areas have, for various reasons, not warranted detailed reports. Summary descriptions of them have been made and included in either of the contract reports (March 1976 or March 1977) where the descriptions appear in the numbered "Area Descriptions" section.

All visits were made by P.T. Harding, almost invariably with the prior permission of the owner or his agents (except in the case of public access areas). All opinions expressed are related to the conservation value and potential of a given area for the invertebrates of mature and overmature trees, dead wood and associated biotopes.

Area, County	Date visited	Report number Area description
Eden Gorge/Baron Wood, Cumbria	July/November 1976	41/1977-10
Gowbarrow Park, Cumbria	July 1975	1976-11
Low Stile Wood, Seatoller, Cumbria	July 1975	1976-12
Rydal Park, Cumbria	July 1975	42/1976-13
Dunham Park, Greater Manchester	August 1975/ November 1977	1976-14

EDEN GORGE/BARON WOOD

CUMBRIA

National Grid reference : 35/5243

Visited : 6 July 1976 (P.T.H.) and November 1976 (F.A. Hunter)

Owner : Partly owned by Sir Gerald Ley, Lazonby Hall

Baron Wood is almost entirely replanted with conifers, and deciduous woodland is limited to the river-side part. I examined the west bank of the Eden Gorge from about 35/508442 to 35/529422. Oak woodland with birch, crab apple, hawthorn and alder, remains along the west bank. The oaks are mostly mature trees and some are beginning to lose limbs. There are few ancient oaks other than some river bank pollards. Alder is common on the river banks. A rock face runs along the edge of the river between 35/526427 and 35/526423; here the oaks are younger and in an even mixture with elm and ash. The rest of the west bank of the gorge is like Baron Wood, replanted with conifers ranging from 5 to 50 years.

The ground flora is poor as would be expected in base-poor soils. Bracken and Holcus dominate, with Endymion, Oxalis and Primula vulgaris.

There is ample evidence of insect attack in dead wood. If this area is the "Baron Wood, Cumberland" collected in by Day & Britten (see Fowler Vol. 6), there is still some potential habitat for the species recorded by them.

F.A. Hunter (M.A.F.F. Leeds) visited the east side of the Eden Gorge in November 1976 in the area of Nunnery Walks and Croglin Glen where it runs up to Staffield Park. He saw there a number of large old oaks and some large limes together with elm, sycamore, birch, pine, alder and hazel. Many fungi were also seen but they seemed to be poor in Coleoptera. He concludes that this area is of interest for timber fauna. The following Coleoptera were recorded. Saperda scalaris, Rhagium mordax, Melanotus rufipes, Ptilinus pectinicornis, Stenostola ferrea and some Cossonine weevils.

Summary

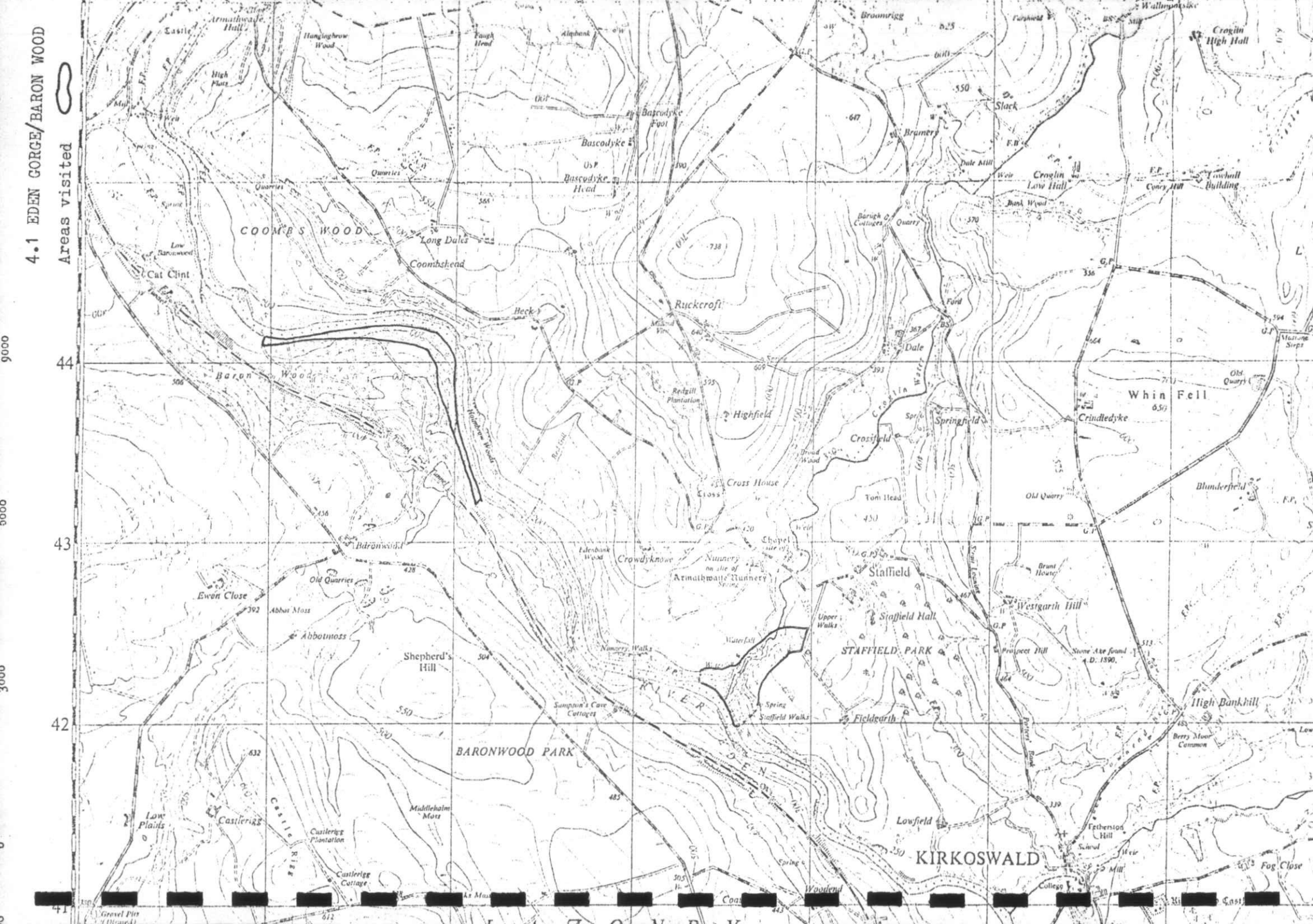
Baron Wood was a locality favoured by Day & Britten at the turn of the century for various timber feeding species of Coleoptera. Baron Wood itself is now mainly conifers, but areas of the Eden Gorge upstream from there still carry oak woodland with mature trees and areas of mixed deciduous woodland. The best areas may be around Nunnery Walks and Croglin Glen where F.A. Hunter (November

1976) recorded Saperda scalaris and Stenostola ferrea, but this part of the Eden Gorge could repay more detailed survey.

Paul T. Harding

4.1 EDEN GORGE/BARON WOOD

Areas visited



RYDAL PARKS

CUMBRIA

National Grid reference : 35/368064

Visited : 29 July 1975

Owner/Manager : Owner not known. Agents : A. Hoggarth & Son, 52 Kirkland, Kendal, Cumbria. Tenant farmers : D. Logan, Nook End Farm, Ambleside, and M.J. Hodgson, Rydal Farm, Ambleside.

Rydal Park, as marked on O.S. maps, is probably only the ornamental parkland associated with Rydal Hall. During my visit I saw both the area of ornamental parkland and the High Park, an area of open pasture woodland on the hillside above Rydal Park proper.

Description

Ornamental parkland. A mixture of open, rough grassland and some improved pasture, mainly on the flat valley bottom, but with rocky knolls and, on the eastern side, the steep slope to the edge of the High Park. The rocky knolls and steeper slopes are planted with oak, beech, sweet and horse chestnuts, ash, sycamore, and a few elm. Most of these trees are clearly contemporary with, or younger than, Rydal Hall (early 19th century?), but some of the beech have reached 4.5 m breast height girth as maiden trees, and may be older. The whole area is grazed and some of the park near Rydal Hall is used as a Scout/Guide camp site. The open grassland is used annually as the venue of the Grasmere Sports.

High Park. Open canopy woodland over bracken and rough grassland. This runs from the eastern, fenced, edge of the ornamental parkland to open, bracken dominated, moorland towards Sweden Crag. The park is traversed by numerous streams, lined by narrow groves of alders. Both native species of oak are present, but the species of many of the oaks was difficult to determine and therefore it was not possible to estimate the ratios of the species. However, oak is the dominant tree of this area. There are also numerous ash and streamside alders, and a few beech, sycamore, elm and holly. Hawthorn and young birch are common throughout the area. Hazel was clearly coppiced in the past and remains as an understorey in the more densely wooded parts. Sheep are periodically grazed in the High Park but there is little sign of intensive use for grazing.

Succession and dead wood

Ornamental parkland. There is a range of age classes of most species of

trees, but the younger generation, especially of oak and beech are poorly represented. Some specimen trees have been planted recently, but generally the long term succession prospects are poor. Fallen trees and limbs seem to be left where they fall except where readily accessible for use as firewood.

High Park. The principal trees, oak and ash, are well represented in all age classes and succession prospects are good. Most trees are probably maidens, although they clearly developed in open conditions and because of this, and the somewhat exposed south-west facing aspect, many have rather broad low crowns. This applies particularly to the older oaks. Hollow trees are not common, but some hollow oaks are present. These are, however, too damp to develop red wood mould/heart rot, and the hollow interiors are flaky and covered with epiphytic growths especially pleurococcids. Dead limbs and trees clearly are left where they fall and little dead wood seems to be removed. There are ample supplies of dead wood in sheltered situations. One exceptionally large ancient oak was noted. This had a breast height girth of 8.6 m. It appeared to have a rather better developed rotten interior than the other oaks.

Evaluation

Ornamental parkland. This area is probably not of great importance for timber utilising invertebrates although some of the commoner species probably thrive in the older beech trees. There are few old trees, not a great deal of dead wood, either standing or fallen, and many trees or groups are rather isolated and therefore exposed.

High Park. This is probably a good example of a western oak/ash/elm wood where coppice management was only applied to a limited extent, mainly to stream-side oaks and alders and to hazel. It is probable that the main use of the area was for sheltered grazing rather than for wood products and as a result large old trees are plentiful. It is questionable whether oakwoods this far north and west, especially in a rather exposed situation such as this, have a specialised timber utilising fauna. However, Rydal High Park is doubtless a good example of this habitat and is a potentially valuable site judging from its structure.

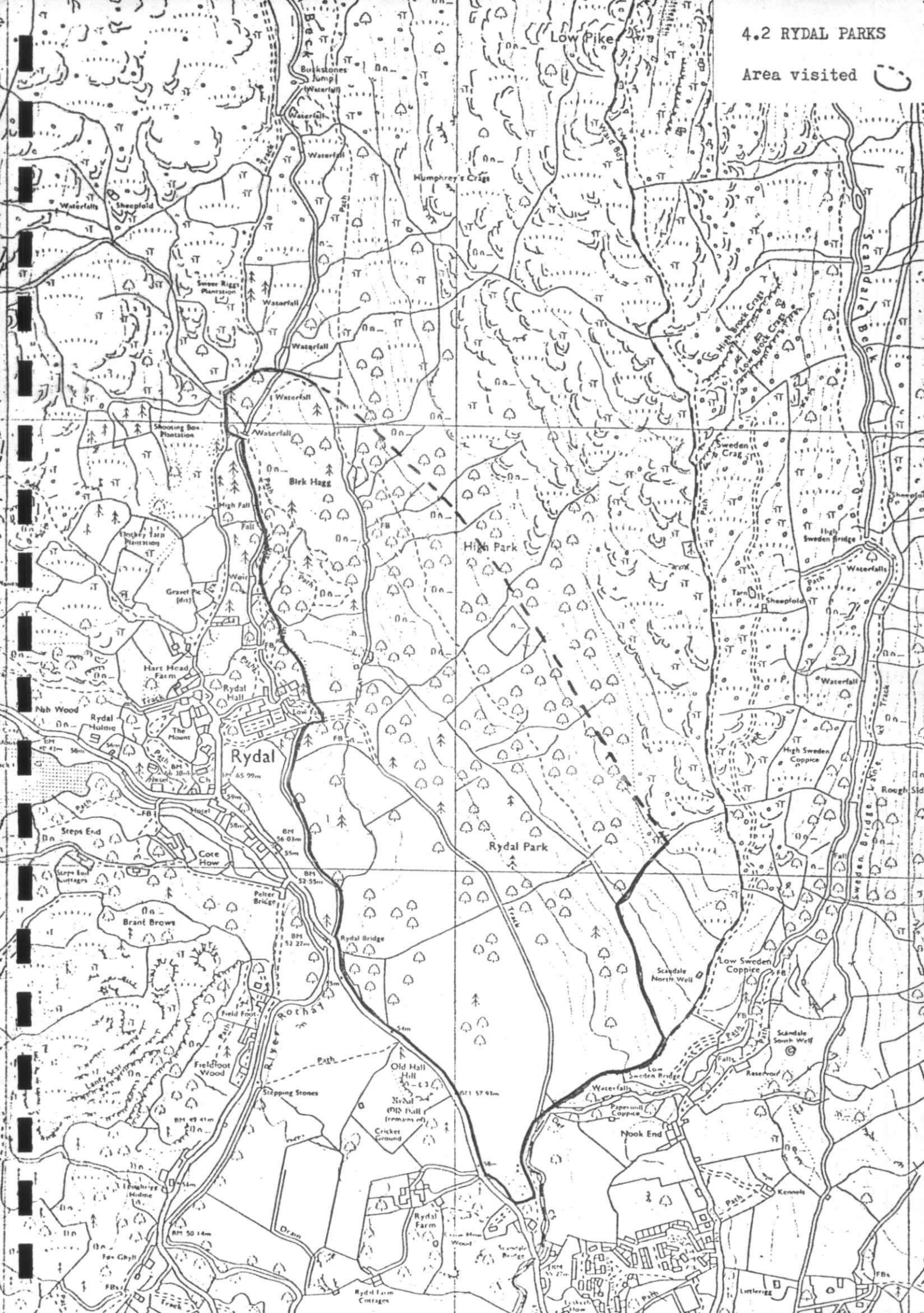
Summary

The Ornamental Park south of Rydal Hall contains a wide range of species of mature trees including oak, beech, ash and elm. There is little succession and dead wood is scarce. Most of the park is open grassland.

The High Park is of considerable interest with many large old oak and ash

scattered over an area of bracken, with areas of almost closed canopy, glades and some scattered hawthorn and other shrubs. Most of the trees are stunted, broad crowned maidens. Few are hollow and those that are, appear to be too damp to develop good heart rot. Standing and fallen dead wood is plentiful. As an example of open oak and ash woodland with mature and overmature trees, this is one of the better areas seen in North/West Britain.

Paul T. Harding


4.2 RYDAL PARKS
Area visited
Low Pike
Buckstones Jump
Waterfall
Humphrey's Crags
Sheepfold
Sweer Riggs Plantation
Shooting Box Plantation
Birk Hagg
High Fall
Fall
Thicket Yard Plantation
Gravel Pit (dis)
Weir
High Park
Sweden Crag
High Sweden Bridge
Scandale Beck
Tarn Dub
Hart Head Farm
Rydal Hall
Nab Wood
Rydal Holme
The Mount
Rydal
Steps End
Cote How
Rydal Park
Brant Brows
Pelter Bridge
Rydal Bridge
River Rothay
Fieldfoot
Fieldfoot Wood
Stepping Stones
Old Hall Hill
Rydal Old Hall (remains of)
Cricket Ground
Rydal Farm
Rydal Farm Cottages
Scandale North Well
Low Sweden Coppice
High Sweden Coppice
Scandale South Well
Low Sweden Bridge
Reservoir
Papermill Coppice
Nook End
Kennels
Rough Side
Sweden Bridge Lane
Track
Path
Drain
Ford
Footbridge
Ch
Hotel
Waterfalls

THE INVERTEBRATE FAUNA OF THE MATURE TIMBER HABITAT

SURVEY OF AREAS

5. South England Region

The following areas have been visited as part of a national survey commissioned by N.C.C. from I.T.E. The background and sources of this survey are outlined in the contract report of March 1976. Some areas were reported on in detail. These reports are included herewith in numerical order according to the following list. The remaining areas have, for various reasons, not warranted detailed reports. Summary descriptions of them have been made and included in either of the contract reports (March 1976 or March 1977) where the descriptions appear in the numbered "Area Descriptions" section.

All visits were made by P.T. Harding, almost invariably with the prior permission of the owner or his agents (except in the case of public access areas). All opinions expressed are related to the conservation value and potential of a given area for the invertebrates of mature and overmature trees, dead wood and associated biotopes.

Area, County	Date visited	Report number/ Area description
Englefield Park, Berkshire	March 1977	1977-11
Hamstead Marshall Park, Berkshire	June 1975	5.1/1976-17
Windsor Forest and Park, Berkshire	May 1975	1976-18
Ashridge and Aldbury Commons, Bucks/Herts	June 1975	1976-19
Burnham Beeches, Buckinghamshire	June 1975	5.2/1976-20
Langley and Black Parks, Buckinghamshire	March 1977	5.3/1977-12
Harewood Forest, Hampshire	February 1976	1977-13
Selborne Common and Hanger, Hampshire	May 1975	5.4/1976-22
Blenheim Park, Oxfordshire	September 1975	5.5/1976-23
Homan's Copse, Wiltshire	August 1976	5.6/1977-14
Longleat Park and Woods, Wiltshire	August 1975	5.7/1976-24
Savernake Forest, Wiltshire	July 1975	5.8/1976-25

HAMSTEAD MARSHALL PARK

BERKSHIRE

National Grid reference : 41/425 662

Visited : 26 June 1975

Owner : Earl of Craven

Much of the western half of the park is arable, but pasture and parkland with numerous trees remain in the eastern half.

The park is planted with numerous exotics - e.g. cedar (Cedrus spp.), horse chestnut (Aesculus hippocastaneum) and lime (Tilia sp.) with avenues of the latter two interspersed with occasional oak, beech, ash and elm (Ulmus sp.)

Two areas of particular note were seen but were not examined in any detail (see map).

(1) Oak maidens and a few maiden beech, often quite old trees, growing over bracken (Pteridium aquilinum) heath in a small valley. Most of the oaks are in the age range of 250-400 years old, the beech being about 250-300 years old.

(2) A steep slope with oak, ash and beech over Pteridium/Rubus heath. The oaks are mainly 250-400 years old, but very few are obviously hollow although several have lost major limbs leaving red rotten stumps. The ash are probably over 200 years old and are senile, hollow and have shed numerous limbs. Most of the beech are over 200 years old but little decayed. Trees of all three species have abundant aerial dead wood. There are many hawthorns in this area.

Succession within these two areas is very limited although oak, beech and ash of 100-150 years age class exist nearby in the avenues and clumps of the park. Trees younger than 100 years are virtually absent. Dead wood seems to be cleared up for firewood wherever it is easily accessible.

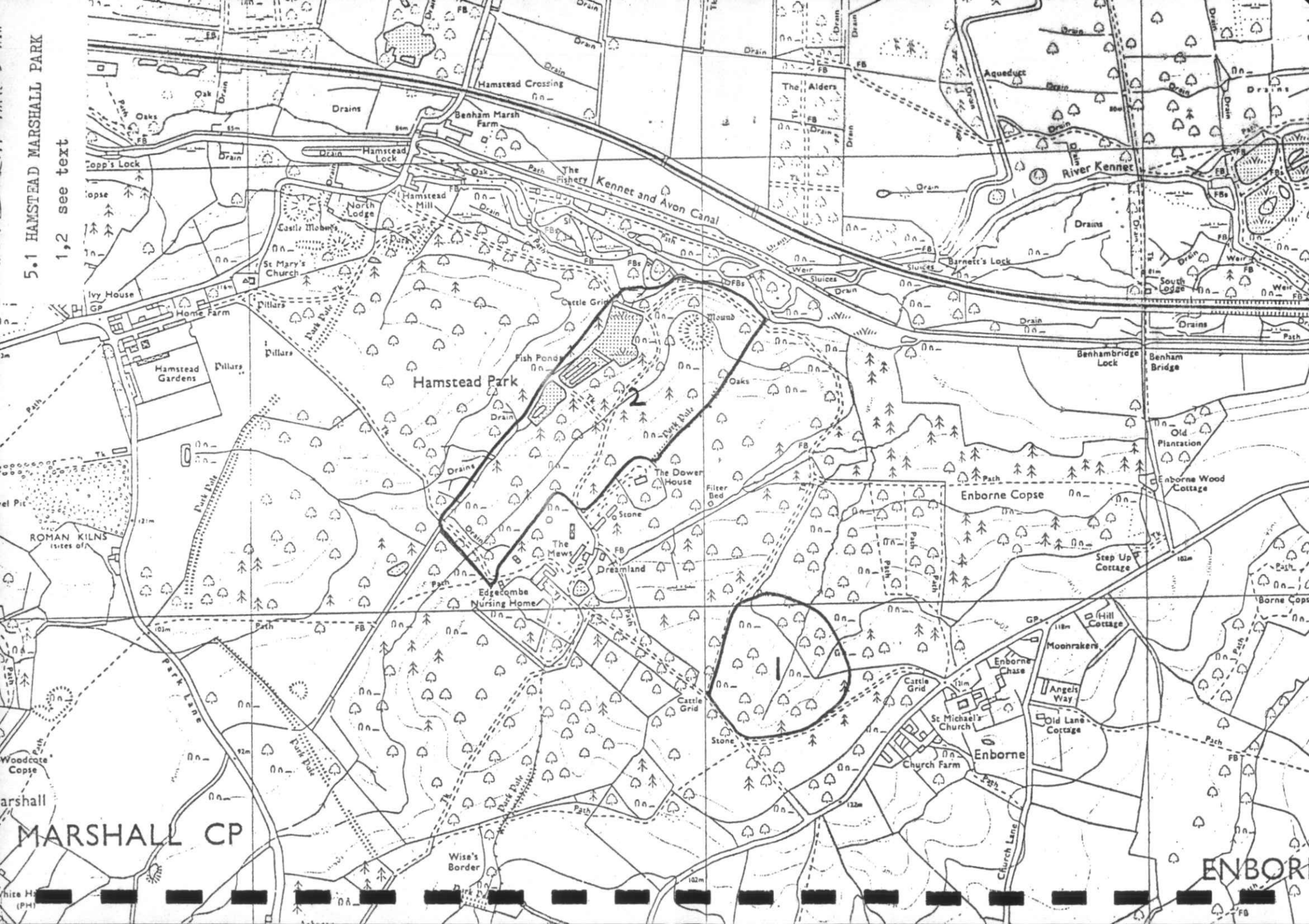
Adjacent to area 2 is a stream and two ponds with Typha beds and an alder wood. The area looks very attractive and could be of considerable interest for birds and invertebrates.

This site is certainly worth further investigation for its potential for invertebrates associated with dead wood and ancient trees. It is of considerable interest for its epiphytic lichen flora (fide F. Rose).

Summary

Not examined in detail, but two interesting areas of mainly oak with some ash and beech were seen. The oaks are in the age range 250-400 years, mainly maidens. Ash and beech are younger. Dead wood is abundant but succession of these species in the areas is scarce although in the landscaped areas of the park all three are well represented by trees of about 100 years old. The two areas of interest are in valleys, one leading down to a large pond and areas of alder. Bracken dominates the ground flora, with much bramble in places. Hawthorn is abundant. The park is known to be of interest for epiphytic lichens, and may well be of interest for dead wood fauna.

Paul T. Harding


5.1 HAMSTEAD MARSHALL PARK
1,2 see text
Hamstead Park
Hamstead Gardens
Home Farm
Ivy House
St Mary's Church
North Lodge
Hamstead Mill
Hamstead Lock
Hamstead Crossing
Benham Marsh Farm
Drains
Oaks
Kennet and Avon Canal
The Fishery
River Kennet
Aqueduct
The Alders
Barnett's Lock
Benhambridge Lock
Benham Bridge
South Lodge
Old Plantation
Enborne Wood Cottage
Enborne Copse
Step Up Cottage
Hill Cottage
Moonrakers
Angels Way
Old Lane Cottage
Enborne Chase
St Michael's Church
Church Farm
Enborne
Church Lane
Cattle Grid
Fish Pond
Mound
The Dower House
Filter Bed
Stone
The Mews
Dreamland
Edgecombe Nursing Home
ROMAN KILNS
(sites of)
Park Lane
Park Pale
Woodcote Copse
Wise's Border
MARSHALL CP
ENBOR
1
2

BURNHAM BEECHES

BUCKINGHAMSHIRE

National Grid reference : 41(SU)9585

Visited : 24 June 1975

Owners : Public open space owned by the City of London Corporation

The precise area known as Burnham Beeches seems to be open to a variety of interpretations. The City of London Corporation owns 440 acres, the N.C.C. includes 580 acres in the Grade 2 site listed in the N.C.R., whereas the S.S.S.I. extends to 1,120 acres. Mainly because of limitation of time and access, my visit was restricted to the public open space area which lies in the southern half of the S.S.S.I.

This area contains a wide range of woodland structures with groves of ancient pollards, areas of mature high forest, neglected oak/hazel coppice and some scrub. The dominant tree, in the pollard groves and the high forest, is beech. Other tree species noted were: oak, mainly sessile, which is locally dominant in high forest; holly, particularly in the main area of pollards; birch, widespread as young trees, but with some older trees beside streams; alder, occasional in flushed valley bottoms; and also rowan and whitebeam.

Pollards

The main area of pollard beeches (with about 10% oaks) lies between Victoria Drive and Lord Mayor's Drive. Two areas have been fenced off, along the north-westerly slope, in an effort to preserve the old trees. The effect of this enclosure has been to produce a holly/birch/rowan thicket but the protection from human pressures has also resulted in the build-up of deep leaf litter and, to some extent, in the presence of fallen timber.

Many of the oldest beech pollards in this area are dead, or nearly so. Almost all are obviously hollow and some support branches on only half of the bole. These trees, although with comparatively small boles (4 m breast height girth at most) are stated to be 300 years old and many are believed to be appreciably older. The oak pollards in this area are almost certainly contemporary with or older than the oldest beech. Most have hollow holes, but are alive.

Pollard beech are also present around the banks of Hardicanute's Moat and Hartley Court Moat. These are of a similar age to the beech pollards further south. Pollard beech and oak are scattered throughout the woods usually along boundary banks and on the steeper valley slopes.

High Forest

Sessile oak, beech and mixed oak/beech high forest occurs widely throughout the area, with some very fine trees of both species ranging between 100 and 200 years old. Very few trees carry any quantity of dead branches, other than a few low down on the trunk. Fallen dead wood and dead standing trees are very uncommon.

Succession

With pollards of 300+ years old, high forest maidens of between 100 and 200 years, and a whole range of younger trees (coppice and naturally regenerated young maiden trees), both beech and oak, there seems to be little cause for concern regarding the succession of tree cover.

Dead wood

There is little doubt that the areas of beech pollards are of importance for dead wood although many of the trees look desiccated even though they are growing in fairly closed canopy conditions. Most of the hollow oaks seem to lack much red wood mould and damage by fire etc was noticed in several oaks. Fallen branches from beeches are quite common especially in the fenced enclosures.

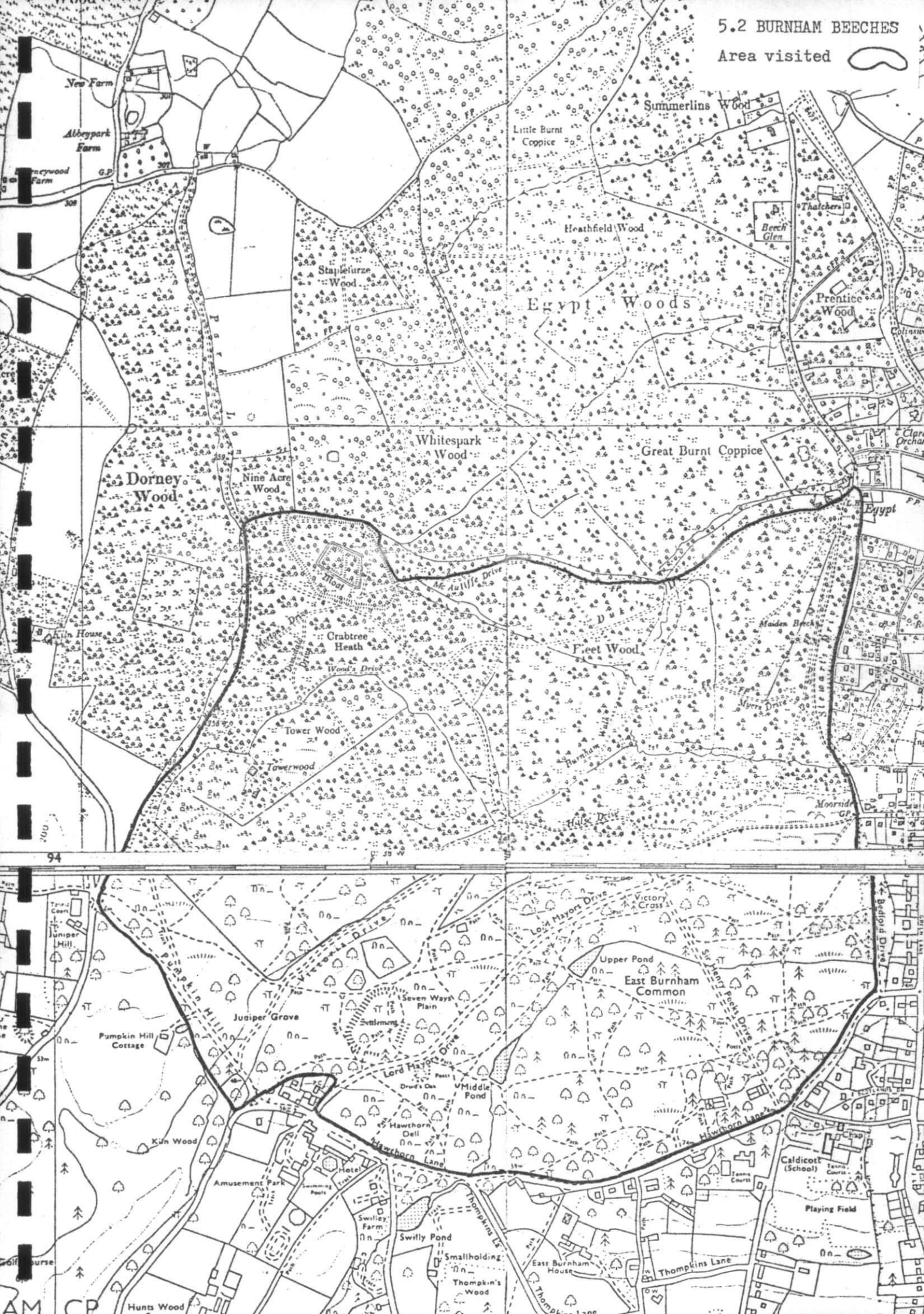
Management

The enclosures are probably most valuable in deterring at least some of the general public from entering the areas with the oldest trees. Elsewhere, especially in the southern half of the public open space area, the effects of trampling and of cars being driven into the woodland are pronounced. There are large areas of bare soil without leaf litter or dead wood. It has been policy since 1968 to limit the access, with cars off the roads, to a few areas, using roadside ditches and baulks. However, in this southern part damage by cars and pedestrians is still obvious. It is unfortunate that one of the areas of greatest public pressure is also the area with most of the ancient trees.

Summary

A diverse area of woodland with groves of ancient beech and oak pollards, mature high forest, neglected oak and hazel coppice and scrub. Dead wood is plentiful and regeneration and succession prospects are good especially in the areas enclosed from public access. Damage to soil structure, old trees and dead wood by the public in the southern half is common. The area is reputed to be good entomologically, but few people seem to have collected here in recent years and no comprehensive lists appear to be available. The potential of the area for dead wood fauna appears to be high.

Paul T. Harding


5.2 BURNHAM BEECHES
Area visited
Summerlins Wood
Little Burnt Coppice
Heathfield Wood
Beech Glen
Thatchers
Stapleturze Wood
Egypt Woods
Prentice Wood
Whitespark Wood
Great Burnt Coppice
Dorney Wood
Nine Acre Wood
Egypt
Moat
Crabtree Heath
Fleet Wood
Tower Wood
Towerwood
Maiden Beech
Myers Drive
Moorside GP
94
Juniper Hill
Pumpkin Hill Cottage
Juniper Grove
Seven Ways Plain
Upper Pond
East Burnham Common
Victory Cross
Lord Mayors Drive
Henry Peek Drive
Lord Hayters Drive
Middle Pond
Hawthorn Dell
Hawthorn Lane
Kiln Wood
Amusement Park
Swimming Pools
Swilly Farm
Swilly Pond
Smallholding
Thompkins Lane
Thompkin's Wood
East Burnham House
Caldicott (School)
Tennis Courts
Playing Field
Hunts Wood
Bedford Drive

LANGLEY AND BLACK PARKS

BUCKINGHAMSHIRE

National Grid reference : 51/0.8

Visited : 3 March 1977

Owners : Buckinghamshire County Council

Black Park was a favoured locality for some of the rarer Coleoptera associated with old trees, in the 19th century (Fowler 1887-1891). Although much of the area was clearly afforested late in the 19th century or early in this century, mainly with conifers, some of the oaks of the earlier woodland remain. These are mostly overmature trees, and almost all are maidens. There are areas of beech, some contemporary with the oldest conifer plantations and in places some overmature trees of possibly 200 years growth. The soil is light, gravelly and acid, with a poor ground flora. Holly and birch occur in places. Dead wood is scarce, and as the park is clearly used intensively by the public, being a Country Park, the whole area is very tidy. However, sufficient overmature oak and beech survive for some dead wood habitats to have remained potentially of interest.

Langley Park lies to the south of Black Park, just over the A412. The northern end, particularly on the eastern side is similar to Black Park, lying on gravelly acid soils and with oak/birch woodland. However, here the woodland has not been planted up with conifers to any great extent, and beech is less common. Overmature oaks occur in this area, but as it too is used for recreation by the public, it is rather tidy. The southern part of the park is open grassland with scattered single trees, groups and belts. Oak is the predominant tree, but horse chestnut, sweet chestnut, lime and elm were also noted. The oaks are almost all overmature, and are larger than those in the upper part of Langley Park and Black Park. Dead wood falling in this pasture area is obviously cleared, and many of the oaks have suffered some tree surgery, probably only on the residual stumps of fallen limbs. Langley Park seems not to have been worked by entomologists, although P.J. Chandler has collected Diptera there, and Moore (1957) lists Mycetophagus piceus and Dorcatoma sp. larvae from the park.

Summary

Langley and Black Parks lie on acid, gravelly soils and clearly were formerly oak/birch woodland. The southern end of Langley Park lies on better soils and is now pasture with scattered trees, including overmature oaks. Black Park and to

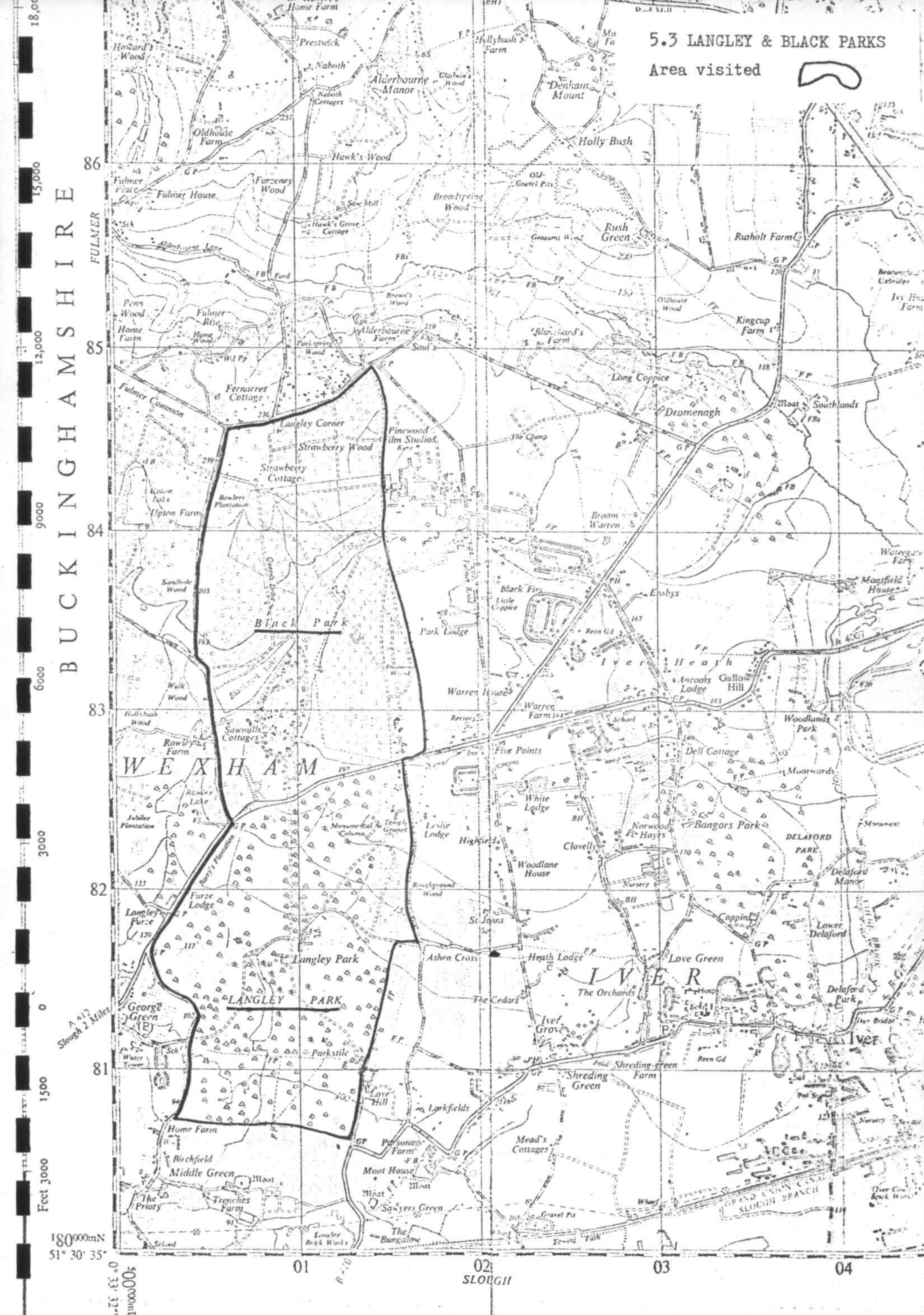
a lesser extent the northern part of Langley Park have been extensively afforested with conifers over the last century. Areas of oak/birch and beech remain, but even here the extensive public use of the areas has meant that dead wood is removed. Old records for Black Park (Fowler 1887-1891) suggest that the area was of interest for dead wood fauna, some of which may remain. Moore (1957) lists two species from Langley Park which suggest that some of the interesting fauna of the area may survive there.

References

Fowler, W.W. 1887-1891. The Coleoptera of the British Isles, Vols 1-5. Reeve, London.

Moore, B.P. 1957. Proceedings S. Lond. ent. nat. Hist. Soc. 1957, 11.

Paul T. Harding


5.3 LANGLEY & BLACK PARKS
Area visited
BUCKINGHAMSHIRE
FULMER
WEXHAM
IVER
Iver Heath
Black Park
LANGLEY PARK
Langley Park
Langley Corner
Strawberry Wood
Strawberry Cottage
Pinewood Film Studios
Bowlers Plantation
Upton Farm
Upton Lake
Sandpit Wood
Park Lodge
Warren House
Warren Farm
Sawmills Cottages
Rowley Farm
Rowley Lake
Jubilee Plantation
Monumental Column
Temple Grunet
Leslie Lodge
Roughground Wood
Furze Lodge
Langley Furze
George Green
Parkstile
Love Hill
Home Farm
Birchfield
Middle Green
The Priory
Trenches Farm
Parsonage Farm
Moat House
Sawyers Green
The Bungalow
Langley Brick Works
Ashen Cross
St Johns
Heath Lodge
The Cedars
Iver Grove
Shreding Green
Shreding Green Farm
Mead's Cottages
Larkfields
Love Green
The Orchards
Coppins
Lower Delaford
Delaford Manor
Delaford Park
DELAFORD PARK
Bangors Park
Norwood Hayes
Clovelly
Woodlane House
Highfield
White Lodge
Dell Cottage
Moorwards
Woodlands Park
Five Points
Ancoats Lodge
Gallow Hill
School
Rectory
Black Firs
Little Coppice
Ensbys
Broom Warren
The Clump
Mansfield House
Watergate Farm
Dromenagh
Southlands
Long Coppice
Blanchard's Farm
Kingcup Farm
Oldhouse Wood
Rusholt Farm
Rush Green
Gossams Wood
Broadspring Wood
Old Gravel Pits
Holly Bush
Denham Mount
Hollybush Farm
Alderbourne Manor
Gladwin's Wood
Naboth Cottages
Naboth
Prestwick
Home Farm
Howard's Wood
Oldhouse Farm
Hawk's Wood
Furzeney Wood
Saw Mill
Hawk's Grove Cottage
Fulmer Place
Fulmer House
Alderbourne Lane
Penn Wood
Fulmer Rise
Home Wood
Parkspring Wood
Alderbourne Farm
Soul's
Fernacres Cottage
Fulmer Common
Walk Wood
Hollybush Wood
Barry's Plantation
Water Tower
A 412 Slough 2 Miles
GRAND UNION CANAL SLOUGH BRANCH
Wharf
Gravel Pit
Iver
SLOUGH
86
85
84
83
82
81
01
02
03
04
180000mN
51° 30′ 35″
Feet 3000
1500
0
3000
6000
9000
12,000
15,000
18,000

SELBORNE COMMON AND HANGER

HAMPSHIRE

National Grid reference : 41(SU)735332

Visited : 16 May 1975

Owner : National Trust

Selborne Common, apart from a thin edge of beech and mixed woodland, is mainly open rough grassland with a few ancient beech pollards and some old oaks. Young oaks, hawthorns, hazel coppice and a few apple and Salix bushes are scattered over the common. Many of the beech are dying, and fallen trees and branches were plentiful at the time of my visit. Some areas of young sycamore natural regeneration were noted on the common. These could pose a management problem for the whole area if allowed to develop. Some young beech have been planted on the common.

The woods of the Hanger are composed of even-aged beech with a few oak and ash, mainly along the edge of the common, and with a little hazel and yew understorey. Beech is regenerating under the few breaks in the canopy. A few older beech are present on the Hanger and these together with the older beech and oak on the common have a similar growth form, indicative of development in open conditions.

Dead wood is quite plentiful, although that on the common is likely to be removed as a result of National Trust tidy-mindedness. The area is reported to be of interest for Diptera (P.J. Chandler) but no records of Coleoptera seem to be available.

Summary

Beech woodland on the Hanger and open scrub and young oaks with scattered old beech on the common. Most of the Hanger beech trees are about 100 years old, but a few are over 200 years, as are those on the common. Dead wood is quite plentiful. The area is reported to be of interest for Diptera (P.J. Chandler).

Paul T. Harding

5.4 SELBORNE COMMON & HANGER

BLENHEIM PARK

OXFORDSHIRE

National Grid reference : 42/4316

Visited : 11 September 1975

Owner : Duke of Marlborough. Agent : W.L. Murdock.

Blenheim Park contains the remains of the ancient Woodstock Park, a royal hunting park associated with the medieval palace. In Domesday Book a "demesne forest of the king" was recorded at Woodstock and it is believed that an Anglo-Saxon hunting chase existed in the area previously.

The park was landscaped after the building of Vanburgh's Palace (begun 1705), but this landscaping appears to have been concentrated on the construction of the lake, a few vistas and on the northern park. In any event, the south-western park remains as an excellent area of pasture-woodland with ancient trees.

Description

The northern park. This area is surrounded by belts of trees probably dating from the late 18th century. They are composed mainly of beech. Mature beech of a similar age are scattered throughout this part of the park in small groups, singly and around the edge of Fourteen-acre Clump. The famous Central Avenue is composed of elms. (The fate of this avenue in the face of Dutch elm disease is well documented.) The avenue is of trees of about 85 years old, and similar aged lime, elm, horse chestnut and beech are distributed over the northern part of the park. This part is kept very tidy and all fallen dead wood and dead trees are cleared.

The lower park lies to the south-east of the palace and is the area most used by the public. It contains a number of isolated trees some of which are ancient hollow oaks, many of which appear to be pollards. Some elm, lime and beech, of about 100 years are also present. The area is apparently kept tidy and clear of dangerous trees because of the public access to the area.

The south-western park. This area is bounded by the lake on the east and north sides and by the park wall on the west and south sides. It lies on a dome of Jurassic strata - Cornbrash and Oxford Clay. The resulting soils in this area are varied with a mosaic of neutral/basic Brachypodium grassland, acidic/neutral bracken heath and Deschampsia/Dactylis grassland. The tarmac roadway running through the area roughly divides the Brachypodium and bracken areas on the east from the Deschampsia/Dactylis area on the west.

The lakeside has ornamental plantings of beech dating from the late 18th century. These thin out towards the north of the area, but in the south, closed canopy beech woodland occurs, with scattered sycamore and horse chestnut, and with some ancient oaks and old wych elm pollards. Sycamore is regenerating freely in this part. A few mature lime and ash trees are present in this area and natural regeneration of both species, together with some from the elm, was seen.

Elsewhere the area is a mosaic of ancient oaks in groups, or singly; mature oaks, mainly singly; and younger oaks of about 40-75 years, mainly in planted groups. Oak is also regenerating freely in most parts and sapling trees are making good growth.

There are several areas from which the ancient oaks have been cleared (the boles are still present near these clearings). Some of these clearings have been planted with conifers or conifer/broadleaved mixtures and others have been planted with cereals (probably for game). A few plantations of ornamental trees have been established, but these appear to be nurseries, possibly for the Blenheim Park Garden Centre.

This part of the park contains a number of hawthorns, both young saplings and mature bushes. Elder, goat willow and some young birches are also present.

The growth form of the ancient oaks is similar to that seen at Sherwood, suggesting that they developed in open forest conditions, under grazing pressure. Young trees (even the 40 year old trees) show the same type of growth form. Many of the ancient oaks are hollow and some are nearly dead. Heart rot and all forms of dead wood are abundant. Fallen dead wood does not appear to be removed to any great extent.

The beech trees of the lakeside all appear to be late 18th century in origin and are overmature. Dead trees and other dead wood are plentiful. Although there is a little natural regeneration of beech in the south, succession of beech is limited to a small area of mature plantation in the north, and some 10-15 year old trees in the mixed plantations.

Summary

The area to the south and west of the lake is an excellent example of naturally regenerating oak forest, mostly in open canopy. There are ancient hulks similar to the best examples at Windsor and Sherwood, with a full range of age classes to young saplings. Some small areas have been cleared of trees to provide sheltered tree nurseries probably for the estate garden centre. Beech is present near the lakeside, most are relics of the 18th century landscape

planting and are senile. Dead wood is plentiful and undisturbed in most areas. The fauna has been worked slightly by G.H. Ashe and R.W. Lloyd, but no lists exist although there are very scattered records of several extremely rare Old Forest species of Coleoptera (Allen 1954, 1955, 1975; Angus 1965, Lloyd 1954). The area is of very high potential and every effort should be made to discourage the estate from making any more clearings. The remainder of the park is much more formally landscaped and heavily grazed, although the Lower Park contains a few oaks of similar age to the oldest generation in the south-western area. Allen (1975) suggests that Blenheim Park was the locality for the only known British specimen of Anaspis schilskyana collected by Ashe in 1953. The larvae of this species feed in half dry, red rotten oak.

References

Allen, A.A. 1954. Colon latum Kr. (Col., Cholevidae) etc at Wychwood, Oxon. Entomologist's mon. Mag., 90, 144.

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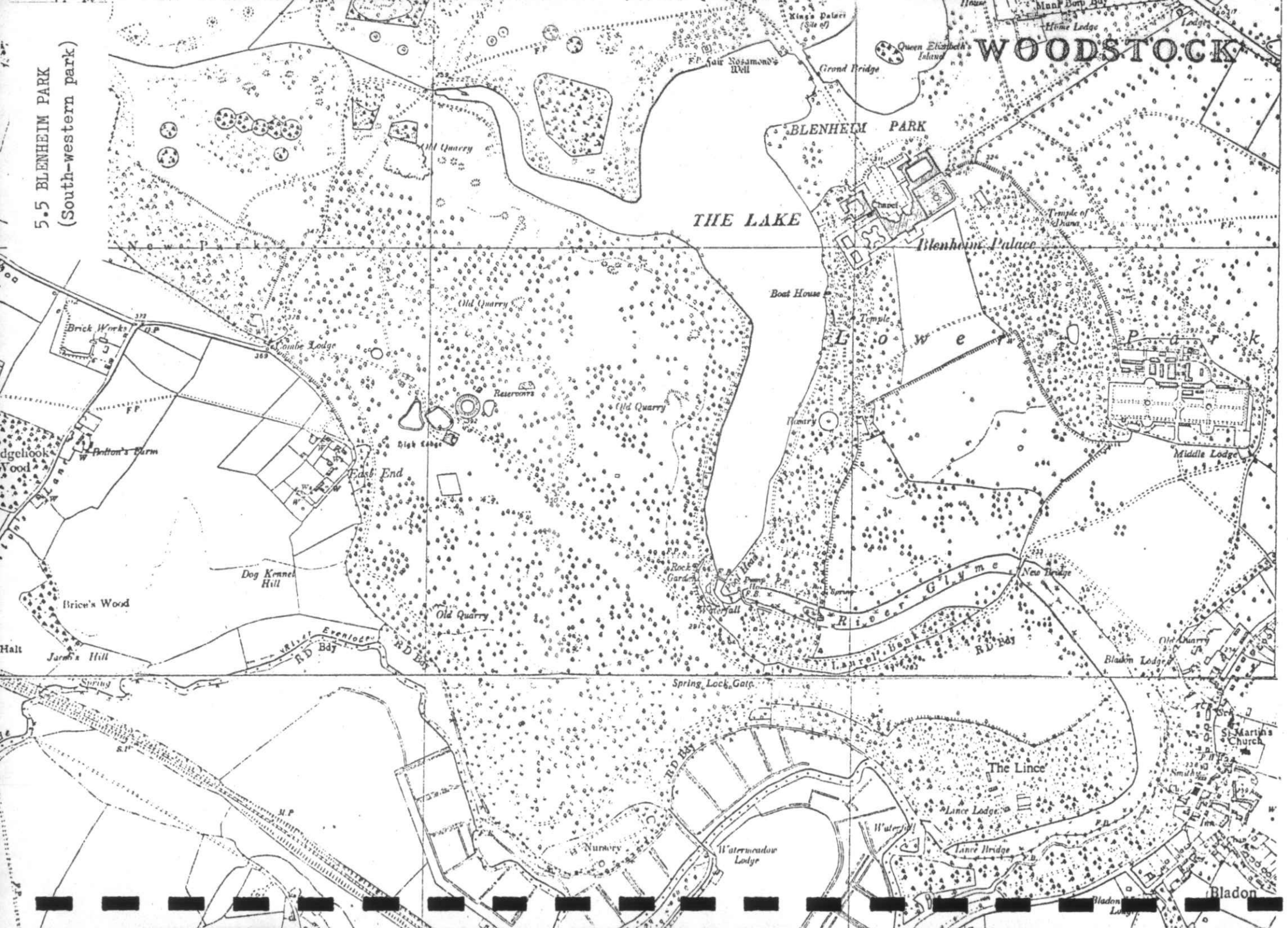
Paul T. Harding

5.5 BLENHEIM PARK
(South-western park)



HOMAN'S COPSE, HAMPTWORTH WOODS

WILTSHIRE

National Grid reference : 41/2023

Visited : 7 August 1976

Owner : N. Anderson, Hamptworth Lodge, Landford, Salisbury, Wilts.

An area of about 150 acres was examined on 7 August 1976. Mr. Anderson was unable to permit me to visit other parts of his estate woodlands. He suggested that Homan's Copse was a fairly representative example of the older oak woodland on the estate.

The copse lies on ground rising to just over 200 ft, and is surrounded on all except the southern side by small streams, tributaries of the River Blackwater. It lies between the higher ground of the northern edge of the New Forest (2½ miles to the south) and the lower lying woodlands characterised by Whiteparish Common (S.S.S.I.).

The woodland is similar to some areas of the New Forest, with light silt/sand soils, and a typical ground flora associated with such base poor soils. Much of the area remains under deciduous woodland, but small areas have been replanted with conifers within the last 20 years. It is probable that Homan's Copse was, as the name suggests, a coppice woodland, with oak standards. Some standards with open crowns remain in places, but much of the area is now oak high forest of about 200 years. The old standards are overmature with dead limbs, particularly the lower ones. The coppice layer was probably oak and hazel, but little oak coppice survives except possibly as singled growths now being grown to high forest. Birch is plentiful in places, and a small area of birch high forest is being developed. Sweet chestnut was planted into a small area about 30 years ago and forms an understorey beneath oak. Rhododendron scrub is also present in places.

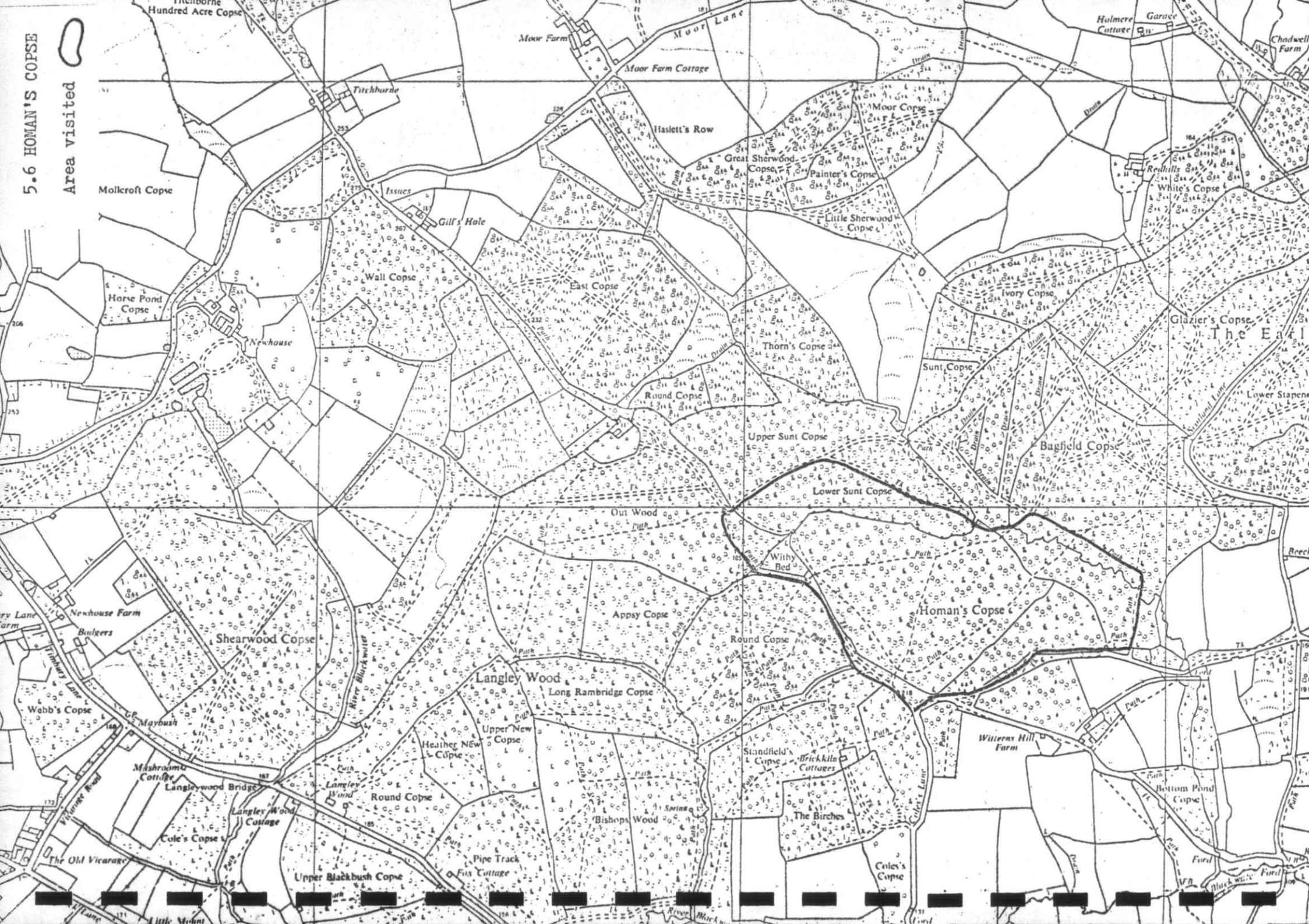
Dead wood is present, but in common with all commercially run woodlands, it is not plentiful. The oldest oaks (over 250 years) have dead branches in the crown and lower down, and a few of the 200 year old high forest oaks have dead branches. Some oaks have thrown live branches recently, no doubt in response to the dry weather.

Summary

Homan's Copse lies 2½ miles to the north of the New Forest at a lower altitude, but with similar soils. Its conservation value as woodland should be seen in relation to its proximity to the New Forest; it differs little from many oak high

forest areas there. Dead wood is scarce and the wood is managed commercially so that overmature trees are unlikely to be retained. The Hamptworth Woods are reported by David Nash (personal communication) to contain several Coleoptera, associated with dead wood, of considerable interest, but it is unlikely that these were recorded in Homan's Copse.

Paul T. Harding


5.6 HOMAN'S COPSE
Area visited
Titchborne Hundred Acre Copse
Meon Farm
Moor Lane
Moor Farm Cottage
Titchborne
Haslett's Row
Moor Copse
Great Sherwood Copse
Painter's Copse
Little Sherwood Copse
Holmere Cottage
Garage
Chadwell Farm
Redhills
White's Copse
Mollcroft Copse
Issues
Gill's Hole
Wall Copse
East Copse
Horse Pond Copse
Newhouse
Thorn's Copse
Round Copse
Ivory Copse
Glazier's Copse
Sunt Copse
Upper Sunt Copse
Lower Sunt Copse
Bagfield Copse
Lower Stapens
Out Wood
Withy Bed
Homan's Copse
Appsy Copse
Round Copse
Newhouse Farm
Badgers
Shearwood Copse
Langley Wood
Long Rambridge Copse
River Blackwater
Webb's Copse
GP
Maybush
Upper New Copse
Heather New Copse
Mushroom Cottage
Langleywood Bridge
Langley Wood
Round Copse
Langley Wood Cottage
Cole's Copse
Bishops Wood
Standfield's Copse
Brickkiln Cottages
The Birches
Witterns Hill Farm
Bottom Pond Copse
The Old Vicarage
Pipe Track
Fox Cottage
Upper Blackbush Copse
Cole's Lane
Cole's Copse
Little Mount
The Earl

LONGLEAT PARK AND WOODS

WILTSHIRE

National Grid reference : 31/8043

Visited : 9 September 1975

Owner : Viscount Weymouth. Agent : R.B. Charles.

Longleat Park and the adjacent woods were part of the Royal Forest of Selwood and later formed part of the estate of the Augustinian Priory of St. Radegund. After the Dissolution the estate remained associated with the monastic site, where the present Longleat House was begun in the late 16th century. The park was extensively landscaped by Lancelot Brown in the 18th century.

Park

The park contains three notable areas of ancient oaks, in the north-western part (see below). The rest of the park has few trees of any interest, most being isolated and rather exposed to desiccation. However, the lower slopes of Park Hill from Wind Hill to Prospect Hill carry a few sizeable old oaks and also some beech of circa 200 years. These beech are pollards and must date from the original Brown landscaping; they are decaying rapidly and are surrounded with dead wood. The top of this slope is planted with a screen of beech of between 50 and 100 years.

Park 1. A series of groups of trees on two steep sided dry valleys, extending from the valleys on to the more gently sloping ground to the east. There are two groups of limes of about 150 years old with a scatter of similarly aged elm and beech, and some sweet chestnut which are possibly older.

There are about 20 ancient oaks which are not even aged. Some fine maiden trees may be only 250 years old, but a few pollards or open canopy maidens are clearly older and may exceed 350 years. One maiden oak is 7.8 m breast height girth. All the oaks have lost branches and have dead limbs in the canopy, several are hollow.

Dead wood is present in this area, but most is clearly newly fallen. The surrounding grass is mown as well as grazed and the area is clearly popular with the public. It is probable that fallen timber is cleared away fairly rapidly.

Park 2. This is adjacent to the baboon, zebra and giraffe enclosures within the area open to public access. It lies at the foot of a steep slope (Wind Hill) and is rather inaccessible; as a result it seems to be little visited by the public.

At the point at which the lower slope of Wind Hill begins to level out into the park, is a group of oaks in open canopy, with a few sweet chestnut and lime. The oaks range in ages from about 100 years, or slightly less, to ancient pollards. There is a good representation of trees in all age classes. Most trees are not as tall as those in area 1. Many of the older trees are senescent, with dead limbs and hollow trunks. Fallen dead wood is present and appears undisturbed. The area is on light sandy soils with some flushing from the hill above. The field layer is a mixture of grassland and bracken and the area appears to be favoured by the fallow deer.

Park 3. This, the extension of area 2 into the Safari Park was probably an equally interesting area but is unlikely to have much of a future. There are few young trees to give succession and most trees have been damaged by the animals of the enclosures. Some trees have been killed, but the remaining living trees, mainly oaks, have been protected with various forms of metal or netting collars and frames to prevent further damage by baboons and giraffes.

Woods

The woodland on the western side of Longleat Park - Ashen Copse, Longleat Woods, Roddenbury Hill and High Wood - should be considered as a whole. These woods lie on Oxford Clay, except Roddenbury Hill which is an outlier of the Greensand on the eastern side of the park. Downwash from Roddenbury Hill gives slightly acid facies in Holly Bushes but elsewhere the ground flora in these woodlands is typical of that found in boulder-clay woodlands of eastern England.

The woods contain areas of oak dominated high forest and coppice with standards, where the stocking of standards is high. The oaks are very tall in places and some probably exceed 200 years. There is however a mixture of ages to 50 years in some of the oak high forest with coppice. Replanting with conifers has taken place in some areas, and there is an arboretum on the eastern edge of High Wood.

Some areas are, to judge from their flora and composition, clearly not ancient woodland. This together with the mosaic of management types probably only adds to the interest of the area.

In the areas with older trees, dead wood is abundant and for this reason alone, the woodlands are probably of entomological interest. However, the location of these woods in the west of England makes the whole entomological potential of the area considerable.

Summary

Three discrete areas of ancient oaks lie in the north-east of the park.

They are all in open canopy over grassland, although one area is within the Safari Park, and here the grass is heavily grazed. The trees within the Safari Park have been badly damaged by baboons and giraffes although some attempt has been made recently to protect the living trees. The oaks are mostly over 200 years old, with some maidens of anything up to 400 years. Dead wood and hollow pollards are plentiful. The Wind Hill area of the park has the best area of oaks at the foot of the hill, and excellent stands of mixed aged beech on the slope and hill top. Some beech must date from the Lancelot Brown landscaping. The woodlands on the western side of the park (Ashen Copse, Longleat Woods, High Wood and Roddenbury Hill) obviously contain some areas of secondary woodland, but much of the area is excellent oak high forest or coppice densely stocked with oak standards. Dead wood is abundant and the area is probably of considerable entomological interest.

Paul T. Harding

5.7 LONGLEAT PARK & WOODS

1-3 see text

SAVERNAKE FOREST

WILTSHIRE

National Grid reference : 41/2366

Visited : 8 and 9 July 1975

Managers : Forestry Commission (Chief Forester, F.C., Postern Hill, Marlborough, Wilts).

Savernake was a Royal Forest, and as such came under Forest Law. This period of its history is well documented by the Marquess of Ailesbury (1962). In the late 1930s the Forestry Commission took responsibility for the remaining part of the Royal Forest (reduced in area since medieval times) and since then have conducted commercial forestry with an enlightened eye to the history of the area and to the use made of the forest by the general public.

The impressive beech groves and drive-side plantations, and also the plantations in the south-west and north-east, date mainly from the planting done as a result of the landscape plans drawn up by Lancelot Brown (1760s). Some large areas of oak plantation originated during the same period. The remainder of the forest was probably dominated by grassy heaths and scattered patches of woodland with large free-standing oaks and beeches, together with areas of hawthorn scrub. Little remains of this heathy area except in Compartments 14/15 and in 17, 24 and 25. Within the earlier F.C. plantations are considerable numbers of ancient oaks, beeches and hawthorns. The best examples are in Compts 17, 19, 20, 24, 53 and 68. Here some examples of broad crowned oak in sheltered conditions reach over 5.5 m breast height girth.

Beech

The F.C. stock maps date at 1750 most of the old stands, but many trees away from the Grand Avenue must predate this. Two distinct growth forms exist : fairly tight but open crowned pollard-like trees obviously originated in comparatively open conditions, whereas straight or forked stems, such as in the avenues, developed in plantation conditions. The oldest beech are falling apart and some have blown over or shed large limbs in recent years. Few have been tidied up to any extent, except in the public access areas (see below). In some cases the better pieces of some limbs have been removed, but generally decaying beech is plentiful, although most trees are still alive and healthy.

Oak

The F.C. stock maps date at 1750 most of the old stands, but probably most

of the trees over 3.5 m breast height girth must predate this. 1750 is probably the latest date of major oak planting before the 20th century. Like the beech, two growth forms exist - an open crowned form and high forest maidens, but the open crowned form is commonest. Few trees which are obviously hollow or have heart rot were observed, except for the most ancient trees (e.g. the so-called King Oak and Queen Oak). However, some of the more massive 300+ year trees must be rotting to judge from fallen limbs. Red rotten interiors are not accessible in all but a few examples. Where ancient trees have been felled in recent plantations many have been left in situ to decay naturally in sheltered situations. Fallen limbs and trees are left except for sound large limbs.

Succession

Beech. There is a significant generation gap between the late 18th century plantings and the 1950s plantations, except for a few pockets of mid-late 19th century plantings mainly along the ride to Savernake Lodge from the A4. Beech is regenerating naturally in many areas and the present F.C. policy is to encourage natural regeneration in the principal beech areas.

Oak. As with beech, there is a generation gap between the late 18th century plantings and the 1939-1950s plantations. Oak is much longer lived than beech, so that perhaps this gap is less crucial. Oak is regenerating freely in some places, but F.C. management is not using this as a means of propagation. Most of the older (pre 1750) oaks are scattered through plantations, giving excellent continuity prospects for colonisation by invertebrates and epiphytes.

Policy towards mature trees

Public vehicular access areas. Along the principal rides and around the car parks etc, F.C. policy is to fell, and to remove the sound portions of, all trees which could be considered to be potentially dangerous to the public. In effect much of the older beech could be felled and removed during the next few decades. Beech is marketable as firewood, and sound lengths are eagerly sought after by local merchants. Lop and top, decayed butts, stumps and shattered branches are left on site. However, these are frequently left in exposed situations where heat sterilisation probably takes place rapidly. Very few oak grow in the areas concerned, but the same rules apply for oak (and other species) although the timber is less marketable.

Areas not open to public vehicles. The areas "inside" the barriered rides, in effect most of the forest, are subject to fellings only when trees are in an exceptionally dangerous condition or if trees threaten to shade large areas of plantation. The exception to this is in the areas of beech which are being

propagated by natural regeneration. Here the oldest beech (almost all the pre 1760 trees) are felled and removed. The surface is then scarified between the remaining trees. After the thicket stage of regeneration, it is thinned and some of the remaining old trees are felled. Naturally fallen trees and limbs are cleared for firewood.

Evaluation

Savernake Forest contains large numbers of beech which are over 200 years old. Beech is probably native to this site and could be expected to yield a rich fauna. Similarly there are numbers of mature and overmature oaks. The growth form of the oldest oak and beech suggests that they developed in a sparsely wooded area. This is to some extent borne out by historical evidence. Many entomologists seem to have visited Savernake occasionally but little detailed survey has been done. Records of Diptera (P.J. Chandler, personal communication) suggest a rich fauna, especially of beech associated species. Records of Coleoptera are more disappointing and many Coleopterists have remarked that although the area looks very promising for some of the rarer species, few have been recorded (see references).

Allowing that the woodland at Savernake developed scattered among heathland and therefore that in some aspects its fauna may be limited as a result, the area is of major importance because of the age range of the principal tree species, beech and oak, and because of the policies of the F.C. which are sympathetic to the retention of old trees and decaying wood. Probably the most significant threat to the area comes indirectly from the public, because trees are felled and clearing in the areas where public vehicular access is permitted.

Conservation action

The local F.C. staff seem to be most sympathetic to the principle of conserving parts of the forest in something approaching its ancient condition. There seems to be a genuine need for some advice over the management of old trees and dead wood in the best interests of wildlife.

The following lines of action should be followed by N.C.C. if they wish to become involved with the conservation of the area.

1. Survey of whole forest to map the detailed distribution and age classes of beech and oak.
2. Using the results of the survey to define areas of major importance for beech and oak (including prospects for long term succession).
3. To negotiate with an apparently willing F.C. staff over the management of these areas.
4. Survey the areas of grass heath for flora, butterflies, moths etc. and to

examine the possibility of controlling scrub development over small areas.

5. Attempt to gather together recent records of the invertebrate fauna. Important groups will be Diptera, Coleoptera, Lepidoptera and possibly Hemiptera and Mollusca.

Summary

Reports on the entomological value here vary, but most collectors who know the area agree that it is disappointing when one considers the abundance of ancient oak and beech, and in many places, the abundance of dead wood. Some rare Diptera have been collected by P.J. Chandler and the beeches are reported to be good for this group. Oaks range from over 350 to 200 years old, with a few of 100 years and several large areas of post 1940 plantations. Beech also range from a few trees probably over 250 years to 200 years, although the bulk are about 200 years dating from the famous Lancelot Brown landscaping; there are a few 70-100 year trees and abundant post 1950 regeneration plantations. Management is sympathetic, but there is wide public access to parts of the forest which has resulted in the removal of many fallen trees and trees considered to be dangerous, resulting in the loss of many overmature beech.

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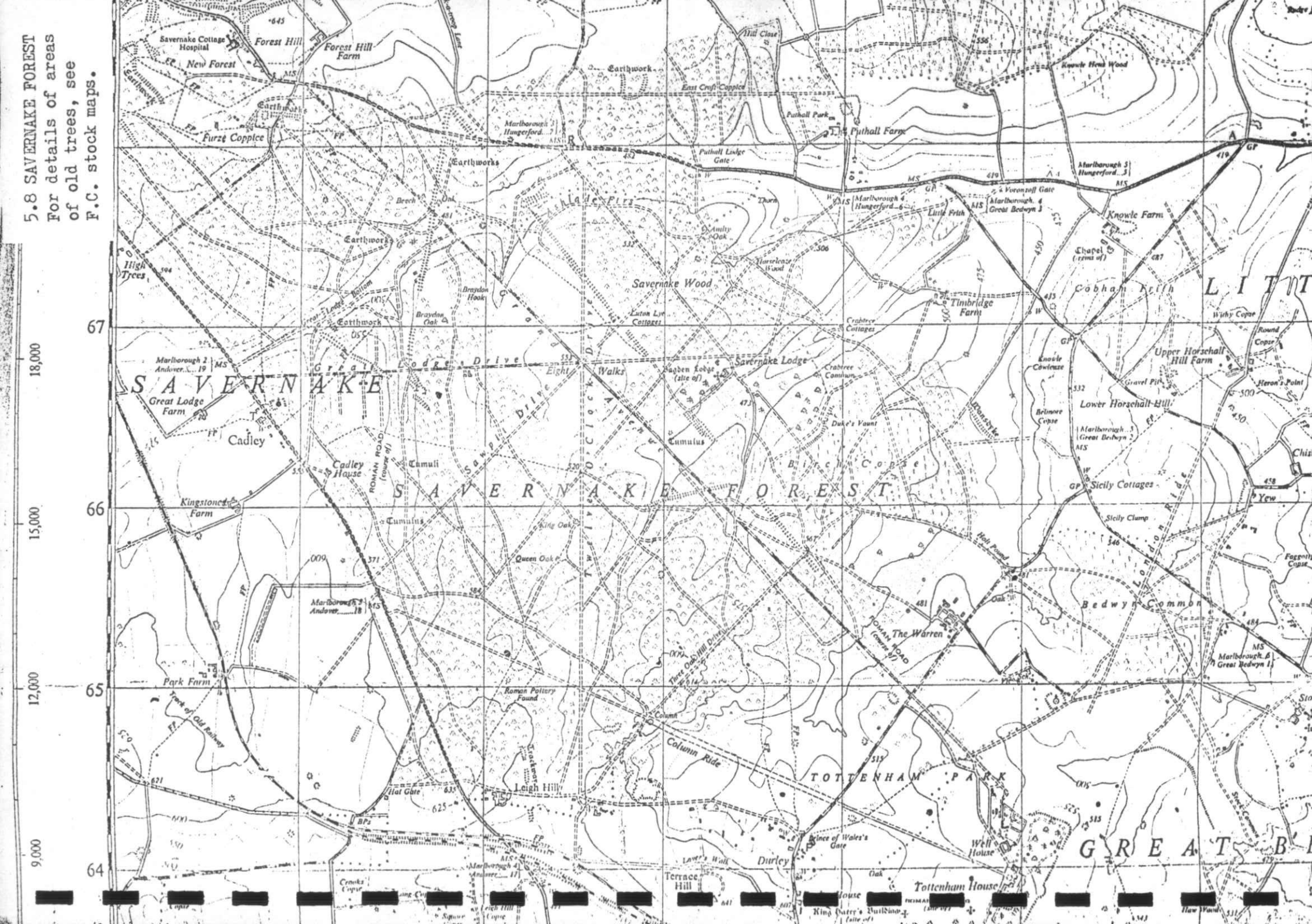
Paul T. Harding

5.8 SAVERNAKE FOREST
For details of areas of old trees, see F.C. stock maps.



THE INVERTEBRATE FAUNA OF THE MATURE TIMBER HABITAT

SURVEY OF AREAS

6. South-east England Region

The following areas have been visited as part of a national survey commissioned by N.C.C. from I.T.E. The background and sources of this survey are outlined in the contract report of March 1976. Some areas were reported on in detail. These reports are included herewith in numerical order according to the following list. The remaining areas have, for various reasons, not warranted detailed reports. Summary descriptions of them have been made and included in either of the contract reports (March 1976 or March 1977) where the descriptions appear in the numbered "Area Descriptions" section.

All visits were made by P.T. Harding, almost invariably with the prior permission of the owner or his agents (except in the case of public access areas). All opinions expressed are related to the conservation value and potential of a given area for the invertebrates of mature and overmature trees, dead wood and associated biotopes.

Area, County	Date visited	Report number/ Area description
Ashburnham Park, East Sussex	September 1976	6.1/1977-15
Eridge Park Estate, East Sussex	August 1975	6.2/1976-26
Ken Wood, Hampstead, Greater London	March 1976	1976-27
Hatfield Home Park, Hertfordshire	September 1977	6.3
Beechen Wood and Lullingstone Park, Kent	August 1975	6.4/1976-29
Mersham Hatch Park, Kent	August 1975	6.5/1976-30
Parham Park and North Park Wood, West Sussex	August 1975	6.6/1976-31

ASHBURNHAM PARK

EAST SUSSEX

National Grid reference : 51/6915

Visited : 27 September 1976

Owners : Ashburnham Christian Trust Ltd/Ashburnham Ash Tree Trust;

Agents : Strutt and Parker, Lewes.

Ashburnham Park S.S.S.I. contains large areas of closed high forest of oak, beech, holly, hornbeam and birch with various exotic species. There are smaller areas of younger woodland with sweet chestnut coppice under mainly oak standards. There are also two important areas of open canopy overmature oak/beech woodland.

Oak dominates these latter two areas and many of the trees are old pollards of the former deer park, now enclosed within the fenced "woodland area" of the estate. Beech, birch and hornbeam are also present, and there is a dense bracken field layer in many places. The best examples of the overmature woodland are in the valley between The Grove and Milestone Toll, between Cowland Wood and Little Beech Farm, and a small area outside the S.S.S.I. to the north east of Milestone Toll.

These areas of overmature woodland are undisturbed; dead wood and hollow trees are plentiful and there are good succession prospects for oak and beech nearby although oak is not regenerating very well within the areas. The valley east of The Grove is particularly inaccessible being very steep sided, it could however be developed for afforestation although this course seems unlikely with the present management of the estate.

Ashburnham Park is set in a densely wooded area with many boundary pollards and broad crowned, field and hedgerow oaks. It is probable that the park is entomologically rich and, in view of its setting in an area of ancient woodlands, may well be of importance for dead wood fauna.

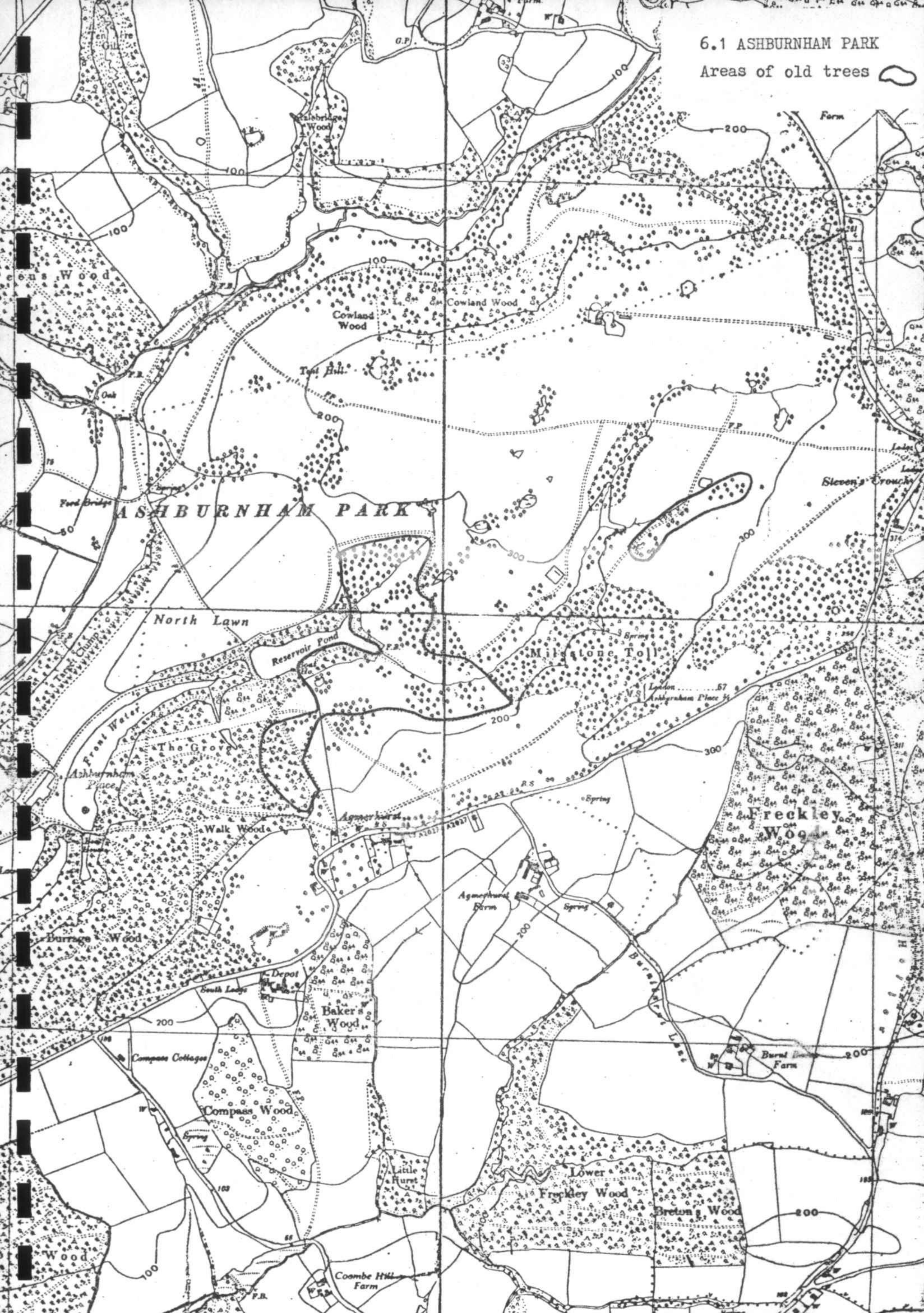
Summary

Much of the woodland of the estate is coppice or closed canopy high forest, but remnants of the deer park remain, now fenced in with the woodland. The best areas of oak pollards with beech, birch and hornbeam over bracken occur in a steep-sided valley between The Grove and Milestone Toll, and between Cowland Wood and Little Beech Farm. Dead wood is plentiful and the area appears undisturbed. It is probably very rich entomologically. The park lies in a densely wooded area with many mature oaks in hedges and fields.

Paul T. Harding

6.1 ASHBURNHAM PARK

Areas of old trees



BRIDGE PARK ESTATE

SUSSEX

National Grid reference : 51/575345

Visited : 13 and 14 August 1975

Owner : Marquess of Abergavenny, Eridge Park, Tunbridge Wells, TN3 9JT

The estate contains several contrasting areas, some of which are of potential interest to this survey, but others which are of high conservation value for other reasons. Comment is made upon all the areas visited, most of which lie within the existing S.S.S.I. boundary. It is suggested that the S.S.S.I. boundary be modified taking into account the following description.

Eridge Old Park (North) (Map : Area 1)

This is the only significant area of the Old Park remaining under semi-natural vegetation. It is probably not typical of most of the rest of the Old Park prior to that being reclaimed for agriculture in the 1950s.

A south facing slope runs from the valley bottom at about 75 m altitude, to the plateau at 150 m. The slope is indented by two wide basins, each with a stream. The western stream was dry at the time of my visit.

The plateau is mainly beech woodland with a poor ground flora. Rhododendron is invading from the beech plantation to the north. Several generations of beech occur, (A) broad crowned senescent specimens branching at less than 4 m with breast height girths up to 6 m, these are probably over 250 years old; (B) straight stemmed maidens of over 130 years old; (C) straight stemmed younger maidens of between 50 and 100 years occur infrequently. Regeneration at present seems to be poor in this area.

The valley contains a stream which has been dammed to form a series of ornamental ponds - these probably date from the mid 19th century, but already an alder carr has developed along the valley, with a rich flora, completely obscuring the ponds in places.

The slope is dominated by bracken (Pteridium aquilinum) with small areas of heathers (Calluna vulgaris and Erica tetralix) and purple moor-grass (Molinia caerula). Over this is a scatter, dense in places, of hawthorn (Crataegus monogyna) scrub amd also isolated bushes, birch (Betula spp.) and mature trees, many occurring as isolated specimens. Oak probably predominates with beech almost co-dominant. Oaks vary in age between about 200 years and perhaps over 300 years, most have

straight trunks branching at 6-7 m, the average breast height girth is 3 m. Oak is regenerating freely in places with some trees of up to 20 years growth in places - presumably dating from the removal of deer in the 1950s. Very few oaks are obviously hollow, but many have dead limbs in the crown, or lying around the base. Beech are mainly the two older generations represented on the plateau. Many branch at 2-3 m and have a breast height girth of about 4 m. Beech appears not to be regenerating on the slope. Several other species of trees occur along the slope, mainly as isolated single specimens, most being represented by less than 10 trees overall. These include ash (Fraxinus excelsior), perhaps the commonest, field maple (Acer campestre), lime (Tilia ? platyphyllos), horse chestnut (Aesculus hippocastaneum), sweet chestnut Castanea sativa), elm (Ulmus procera) and yew (Taxus buccata). Holly (Ilex aquifolium) occurs infrequently along the slope and is regenerating in places mainly on the edge of the plateau.

Eridge Old Park (South) (Map : Area 2)

Most of this area was ploughed in the 1950s and is now grass ley and arable. Only the stream valleys were left and these form interesting islands of bracken on the slopes with scattered scrub (hawthorn and birch) and young alder. These valleys were left deliberately and drain the farmland very effectively (according to the Marquess). Apparently this part of the park had a very thin scatter of old trees, mainly oak and ash, (still to be seen towards the northern edge) over dense bracken. Some 250 decaying old trees were removed, most were not alive at the time of clearance.

Other than the stream courses, this area is of very low conservation value, the old trees are too scattered and too exposed to be of any lasting value either for lichens or timber utilising invertebrates. There is no intention on the part of the Marquess to replace the remaining trees as they die.

Eridge Deer Park (Home Park) (Map : Area 3)

The present deer park contains the much reduced herd of red deer, which is kept at about 100 head. There is considerable variation within the park. The southern part is open grassy heath, with moss and lichen in places and with a small area of wet hawthorn/sallow scrub over Juncus. Part has been reseeded from former arable. On the eastern side, on an area of steep sided valleys is a beech plantation with a few oaks - of about 120-150 years old. Although the plantations are bare of vegetation, the stream-sides have a little, including Chrysosplenium oppositifolium, Carex remota and Oxalis acetosella. Another older beech plantation lies on a steep slope on the western side. The trees

are between 150 and 250 years old with broad crowned low branching, old trees and straight stemmed younger maidens. A small enclosure and a few single specimens have been planted in the last 10 years. Two ponds are surrounded by trees, the larger, in an old pit, with Scots pine, beech, oak etc; the smaller being ringed by ragged (coppiced) oaks. An avenue of limes, about 130 years old, runs west from Eridge Castle. Isolated oak, horse chestnut, poplar (Populus sp.), beech, and exotic Acers are scattered over the northern half of the park. Some of the oak and beech are over 250 years old and follow old boundary banks in the areas north west of the lime avenue.

Western Beech Plantation (Map : Area 4)

Although beech is well represented elsewhere on the estate, the greatest number of overmature beech is to be found here. Old broad crowned trees have been left in magnificent plantations of 150 years old beech which stretch down to the main A26 road in almost closed canopy high forest.

Some younger beech of about 75 years are scattered through. Oak is scattered also through the area, mainly about 200 years old rather poor maidens with much epicormic growth. There is also a low density of conifers, mainly pines, presumably the remains of a nurse crop for the younger beech. Birch occurs sparsely, but is regenerating freely.

The whole area has a dense undergrowth of Rhododendron scrub which seems to prevent the beech regenerating beyond a couple of years growth.

Saxonbury/Rocks Woods (Map: Area 5)

Beech/oak woodland with extensive areas of sweet chestnut and some hazel coppice, with beech and oak as standards. There are bracken glades, usually with birch and, in places, holly natural regeneration. Rhododendron scrub has developed over the area of the Hill Fort, around the Tower (built 1828), and occurs only infrequently outside this area. The stream valley in Rocks Wood contains an alder carr with a rich ground flora.

Beech are mainly broad crowned, low branching specimens of about 250 years old (3.5 m breast height girth). Oaks are generally smaller and of poor growth. The largest beech occur along the northern edge of Rocks Wood, some as the remains of a layered beech hedge on the boundary bank.

The ground flora of this area is quite varied but not particularly rich except in the valley. It has presumably been surveyed by N.C.C. in the past.

Short Wood (Map : Area 6)

This small wood is separated from Saxonbury/Rocks Woods by an area of conifer

plantation. It is essentially a miniature version of the larger wood; mature oak/beech high forest with hazel/sweet chestnut coppice and birch and holly natural regeneration. There is alder carr along the two streams. The ground flora is quite rich especially along the streams. Some beech are senescent and have shed large branches.

Long Wood (Map : Area 7)

A steep-sided valley woodland with 2 side tributaries draining into a central stream. Much of the wood is alder carr with a rich flora including numerous ferns. On the southern edge the streams have not cut back and leave a small undulating plateau with 2 rides and a rather different and varied ground flora ranging from bracken to Mercurialis perennis and including Carex remota and Chrysosplenium oppositifolium. Bluebell (Endymion non-scriptus) is common on the plateau.

Oak standards (circa 150+ years old) over hazel/sweet chestnut coppice with birch and holly natural regeneration predominates on the plateau. Broad-crowned beech standards (circa 200 years old) are mainly along the ride sides. Large hollies occur along the banks of the northern ride. Small outcropts of sand rock occur at the stream heads; these are rich in Bryophytes.

The alder carr is probably the largest on the estate and indications are that the ground flora is at least as rich in Long Wood as in Saxonbury/Rocks Woods. It would seem reasonable to include this area in any revision of the S.S.S.I. area that may be made.

SUMMARY

The northern part of the Old Park is a steep south-facing slope on light sandy soils. At the top of the slope is an area of beech woodland with trees ranging from 50 years old to probably over 250 years, with maidens and pollards present. The slope itself is open scrub, bracken and heather with isolated oak and beech, with a few specimens of ash, field maple and other species. The oak ranges between 200 and 300 years and is regenerating freely. Beech is mainly between 130 and 200+ years and is not regenerating. Dead wood is plentiful.

The present deer park and areas to the west of the deer park and north of the house contain some excellent areas of overmature beech high forest. All are obviously plantations, but are neglected, and dead wood is plentiful. Mature oak and mature and overmature beech are well represented on the estate generally. The whole area, especially the northern parts, is potentially of considerable interest for dead wood fauna.

Paul T. Harding


6.2 ERIDGE PARK ESTATE
1-7 see text
Eridge Green
ERIDGE PARK
ERIDGE OLD PARK
Eridge Castle
Frant
Saxonbury Hill
Great Danegate
Stonewall
Danegate
Broadwater Down
Broadwater Forest
Harsgate Forest
Sprotsbrook Farm
Bohemia
Chase Farm
Martin's Farm
Elf Grange
Frant Place
Sherrifold Park
Rowden Farm
Hazelhurst
Pococksgate Farm
Lightlands
Saxonbury Farm
Nap Farm
Earlye Farm
Frankham
Frankham Farm
Mark Cross
Houndsell Place
Stroud House
Catts Farm
Forest Farm
Stonehouse Farm
Greenhouse Farm
Lodge Farm
Markhouse Farm
Town Row Green Farm
Heathfield
Turk's Farm
Redgate Mill Farm
Blackdon Hill Farm
Whitehouse Farm
Hoth Farm
Steel Bridge Farm
Tangier Farm
Brickhouse Farm
Quarry Farm
Moor Farm
Rumbers Hill
Fir Tree Plantation
Rugel Wood
Whitehill Wood
Chase Wood
Long Wood
Forge Wood
Bushy Wood
Saxonbury Wood
Nap Wood
Hoth Wood
Frankham Wood
Sandyden Wood
Golf Course
Club House
Ivy Lodge
Works
Tunbridge Wells 3
Frant
A 267
B 2169
B 2100
WADHURST
FRANT
ROTHERFIELD

HATFIELD HOME PARK

HERTFORDSHIRE

National Grid reference : 52(TL)238090

Visited : 21 September 1977

Owner : The estate of Lord Salisbury

A large area of woodland and parkland is shown on Ordnance Survey maps attached to Hatfield Palace. Little of this is, however, open to the public and therefore my visit was limited to the area north and north east of Hatfield Palace, roughly the area marked on the O.S. 2½ inch map as the Home Park. This area is almost certainly not ancient parkland, originating in the early 17th century (Munby 1977, p. 151).

The Home Park contains a number of ancient oaks in fairly open parkland and also in areas of secondary woodland and recent plantations. Most of the oaks have the appearance of pollards and many, especially those in the parkland, have exposed hollow boles. However, few of these hollow trees contain wood mould and several have been burnt, but are still alive. The area also contains a number of overmature sycamore, in planted lines and a few overmature beech. Impressive avenues of limes lie along most of the principal rides in the Home Park. Most of the limes are mature or slightly overmature, and along some rides, young limes and other species have been planted recently.

The oaks in the parkland have given rise to extensive regeneration in the last few decades, certainly since the removal of the deer herd in the First World War, or following the advent of myxomatosis. Sturdy young oaks are growing in a mixture with similarly aged hawthorns. In the vicinity of the sycamore groves, natural regeneration of sycamore has occurred, but this seems to be younger than the oak regeneration.

Fallen dead wood is scarce, but dead branches and hollow boles are common. However, the parkland and woodland have the appearance of being kept fairly tidy, which, in view of the access that the public has to the area, is not surprising.

Summary

The Home Park is only a small area of the Hatfield Palace estate. My visit was limited to this small area to which there is restricted public access. Ancient oaks are scattered through the area in parkland and in woodland. Overmature sycamore, beech and lime trees are also present. Oak regeneration in the

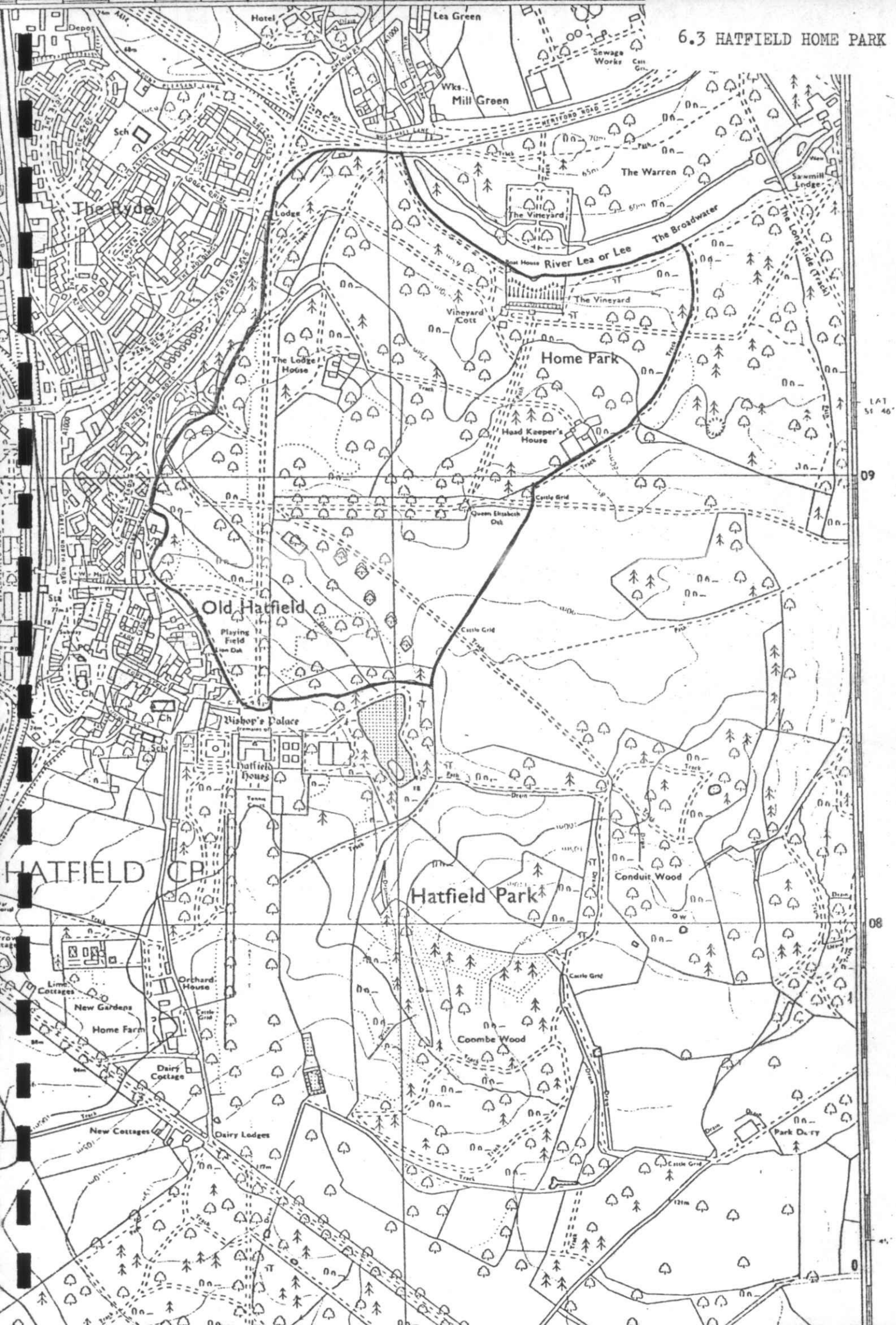
south of the parkland part, together with hawthorn, is plentiful and elsewhere sycamore regeneration is present. The park is kept fairly tidy and as a result dead wood is not particularly plentiful except as hollow trees and dead branches in trees. This part of Hatfield Park is believed to have been enclosed from farmland in the early 17th century (Munby 1977).

Reference

Munby, L.M. 1977. The Hertfordshire Landscape. Hodder & Stoughton, London.

Paul T. Harding

6.3 HATFIELD HOME PARK



BEECHEN WOOD AND LULLINGSTONE PARK

KENT

National Grid reference : 51/512642

Visited : 16 August 1975

Owners : G.L.C.?

Lullingstone Park is a public park and golf course. Much of the old deer park which was in the central valley (P.C. Tinning, pers. comm.) has been re-seeded, and the whole central valley is devoid of trees, with only a few thorn bushes in places.

The parish boundary between Eynsford and Shoreham runs along the southern edge of what must have been the old deer park. An iron deer fence still runs along the parish boundary line dividing the area marked as Beechen Wood on the current 1:50,000 O.S. map into two areas which have had distinctly different managements.

The woodlands north of the deer fence (Upper and Lower Beechen Woods) have clearly developed, partly naturally, partly by planting, on an area of bracken dominate heath which was probably typical of much of the park. The woodland south of the deer fence, on a plateau with a single valley, is coppice with standards woodland with a much more typical woodland flora.

Lower Beechen Wood (Map : Area A)

Mainly beech plantation of various ages. Old maiden trees on the southern edge, some with breast height girths in excess of 3.5 m, probably over 200 years. some have recently lost their tops at 3-7 m, and others have lost large limbs. On the lower slopes, mainly on the eastern side the trees are younger, 100+ years, all are maidens. Some of these have lost large limbs recently. The lower slopes on the western side are mainly young (20+ years) beech plantation with small areas of hornbeam of a similar age.

The 19th century beech plantations are widely spaced and not in closed canopy; in the open areas bracken and nettles dominate the ground vegetation. Hornbeam maidens, mostly of about 100 years are scattered through the beech plantations. Ancient oaks are absent from the area, but a few oaks contemporary with the older beech do occur.

Woodland south of the Deer Fence (Map : area B)

The coppice with standards woodland of this area contrast sharply with the

other parts of Beechen Wood. Oak standards, mostly over 150 years old, over a mixed coppice of sweet chestnut, hazel and hornbeam with some ash and sallow most of which has been cut within the last 20 years. Birch natural regeneration is common in places.

The ground flora appears rich but was not examined in detail; clearly bluebell predominated in some areas but elsewhere is mixed although in August, brambles masked much of the area.

A small area in the south east is a car park for Lullingstone Park, and the woodland rides are very well worn from use by the public. However, the main bulk of the woodland appears relatively undisturbed.

Upper Beechen Wood (Map : area C)

Open canopied woodland runs along a steep sided north facing spur. Many of the largest trees are beech of up to 200 years old. Isolated ancient oaks occur along the slope mainly on the northern side. Along the southern edge is a thin strip of late 18th century beech and oak plantation, with a few old sweet chestnut. Other trees along the slope are hornbeam, both pollards and maidens, horse chestnut pollards, and ash maidens. A few field maple also occur.

The ancient oaks are very large, mostly over 5 m breast height girth, and very few have died back to any great extent. They are all "pollards" which have been left uncut for at least 200 years. Only one dead tree was found out of the total of 20-30 trees. Their appearance is rather like the senescent generation at Sherwood, and they are probably of a similar age. Many are hollow with parts of the main trunk accessible from ground level, but fortunately only one seems to have been burned inside.

Apart from the 200 year old maiden oaks along the south edge, similar aged and younger oaks are scattered through the area, some of which are rather stunted in growth and could provide useful succession for the oldest trees. Regeneration of oak is poor.

The dominant ground flora is dense bracken with luxurious bramble growth in places. The area was virtually impenetrable in August which probably accounts for the lack of disturbance to the area.

The areas to the north of the main slope - across one of the golf course fairways, are a mixture of 30 year old beech plantation, scrub and young ash natural regeneration, but with good stands of very large beech maidens, some recently fallen and some decayed but standing, a few ancient oaks and younger oaks, and some elms recently killed by Dutch elm disease.

The Golf Course

Very few ancient trees remain on the present gold course, almost all are stunted pollards in exposed situations, but they appear to contain heart rot as well as the predictable accumulation of domestic litter and faeces.

Dead Wood

The ancient oaks of Upper Beechen Wood are obviously suitable for timber utilising Coleoptera and the abundance of galleries and flight holes confirms this. As well as some trees being hollow and/or having dead limbs in the crown, some dead wood lies under the trees.

The beech of both Upper and Lower Beechen Woods are also likely to be of great interest for timber utilisers with many fallen trees and boughs, and few rotten stumps and a few hollow pollards.

There are also some hollow hornbeam pollards, many dead mature birch and a few ash with dead limbs in the crown.

Dead wood appears to be left where it falls except when it falls into the golf course or a major woodland ride, in which case it is pulled aside. Very little appears to be burnt on site or removed.

Hawthorn and elder are plentiful in all areas to provide food flowers for spring emergent insects.

Summary

The central valley of the deer park has been cleared of trees in the last 10 years for the golf course, but on the south side two areas of woodland, Upper and Lower Beechen Woods, remain. Upper Beechen Wood is potentially interesting with several very large and ancient oaks and many overmature beech. There are good prospects for succession of both species although oak is not now regenerating. Dead wood is plentiful and almost all the old oaks are hollow or have heart rot. Bracken and bramble and extensive areas of scrub and young trees lie between the areas of oak and beech. Lower Beechen Wood contains many old beech and a good range of younger trees; there are also some hornbeam. This area seems to be totally unrecorded entomologically*, but could still be of great value for dead wood fauna despite the recent reduction in the area of old trees.

Paul T. Harding

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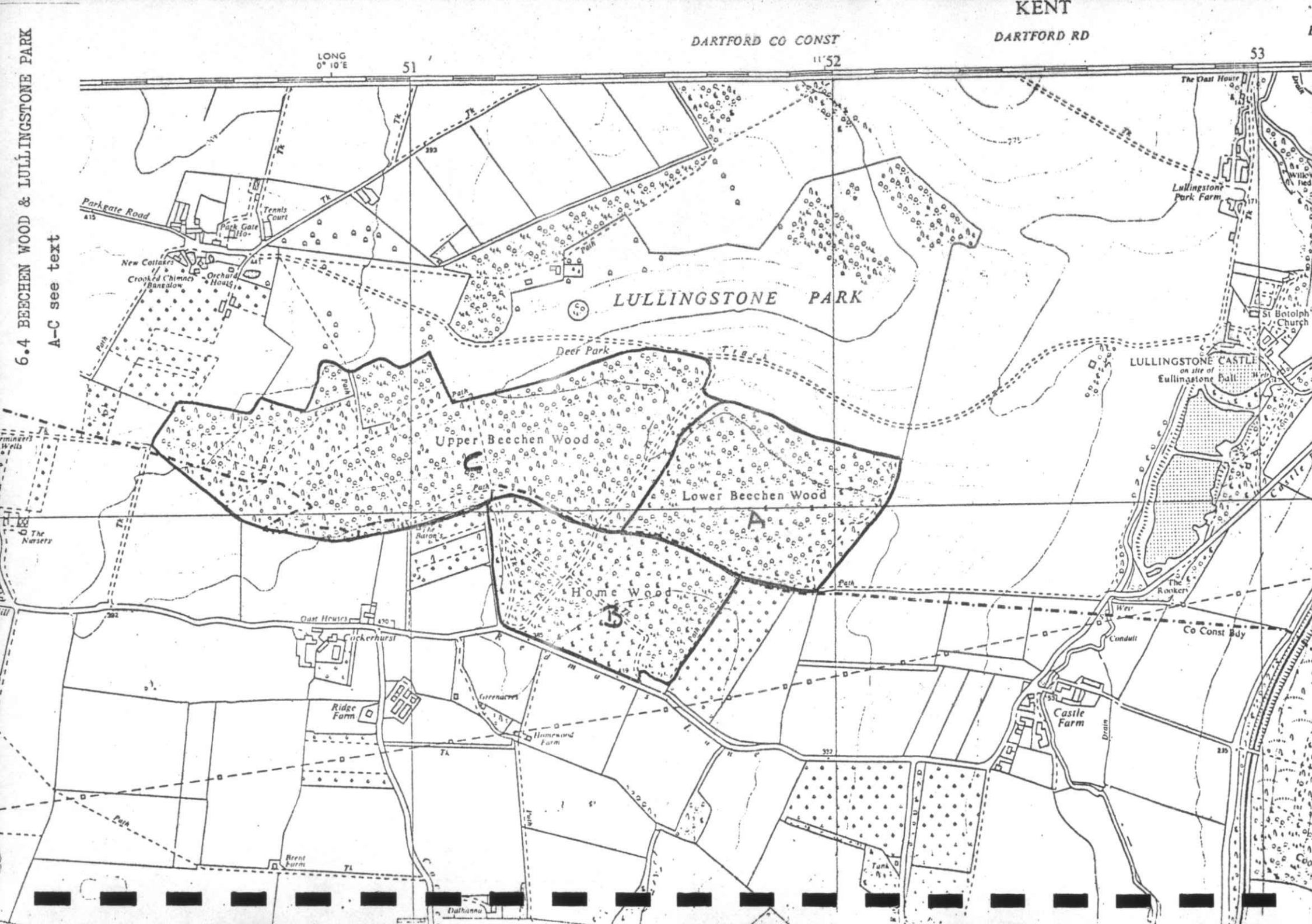
* Lullington Park lies in the Darent Valley. "Darenth" or "Darent" Woods were favoured localities for entomologists in the 19th and early 20th centuries. It is possible that Lullington Park was included under these names.

6.4 BEECHEN WOOD & LULLINGSTONE PARK

A–C see text



MERSHAM HATCH PARK

KENT

National Grid reference : 61/063403

Visited : 15 August 1975

Owner : Lord Brabourne, Newhouse, Mersham, Ashford, Kent.

Agent : P.R. Barnard Esq., Hoath Cottage, Smeeth, Ashford, Kent.

The park lies on undulating ground 2 kilometres below the Wye/Brabourne Downs. It is on light sandy soils which are free draining and base poor. Most of the areas with woodland, plantation or parkland trees were examined, but three areas proved to be of particular interest.

Barrack Wood

The western portion of this wood remains under oak/hornbeam woodland, but the eastern portion (see map) is under a mixture of conifer/sweet chestnut/beech plantation of mixed ages. There is a small area of alder coppice in the south and the remains of an ash/oak plantation about 50 years old, much of which has been cleared for replanting leaving only a few nurse trees.

The oak/hornbeam woodland is almost exclusively of old pollards although there is a small plantation of conifers in groups (circa 40 years old) in the centre. The northern part is mainly oak, with a few hornbeam, over bracken, on a steep north-facing slope. The wood then slopes gently south from a ridge and on the south facing slope hornbeam predominates. Rhododendron scrub has developed on the ridge and along the south-facing slope and is dense in places.

The oaks appear even aged, but this is probably deceptive. Ages could vary between 200 and 400 years. All are pollards, some having been cut within the last 50 years. However, others have probably not been cut for 100+ years. Most trees are about 3.5 m breast height girth. Pollard height is about 3 m. Several trees are dead, but still standing, other dead trees have fallen. Almost all trees are hollow with heart rot, and all show abundant signs of attack by Coleoptera.

The hornbeam are, if anything, more difficult to age, but few can exceed 300 years, and most are probably 200-250 years old. Most are hollow shells with exposed rotten areas. Attack by timber utilising Coleoptera seems to be common, but not plentiful. Some have been pollarded more recently than the oaks, but most have not been pollarded for 30 years.

Regeneration of both oak and hornbeam seems negligible although some younger

generation hornbeam (circa 50 years) are present in the southern part of the area.

In the extreme south of the area, a few old oak pollards and one field maple run down to the road, west of this line is an area of hawthorn and elder scrub with a few young oaks.

A small spur of woodland runs north-east from the main area containing several very large oak pollards (up to 6.5 m B.H.G.) with younger maiden oaks, 100+ years old and a few beech. These are growing over a mixture of Rhododendron and bracken.

Bockhanger Wood

Most of this wood slopes gently northwards away from an old roadway which is still visible along the southern edge as a deep sunkway. A broad ride divides it from a 40 year old plantation - Spring Wood - to the north.

The woodland is primarily hornbeam pollards with a low density of fine oak maidens, many over 3 m breast height girth, and probably over 200 years old. There are also a few old oak pollards, similar to those in Barrack Wood, and a few hornbeam and ash maidens.

The hornbeam pollards vary greatly in age with some in excess of 5 m breast height girth, others may have been larger, but have lost large portions of the original trunk. There are some areas with predominantly young pollards only 1.5 m breast height girth, or less. The oldest trees may well exceed 300 years, but there are comparatively few of this age. Pollarding of most trees clearly continued until at least the Second World War, and again in the last few years small areas have been re-pollarded for hardwood pulpwood. Although mainly the younger trees have been cut recently, only a couple of trees have died as a result. It should be possible to pollard many of the hornbeam in Bockhanger Wood and to expect most to survive.

During the course of pollarding an area of Rhododendron scrub was cleared letting more light into the hornbeams which are only 2-3 m high when cut. However, this has also favoured the regeneration of sycamore present in low numbers as young trees along the northern edge. Sycamore regeneration could prove as insidious a threat, as the Rhododendron, to regeneration of hornbeam. A few young hornbeams were seen in a couple of small glades, and some seedlings were found in the area recently pollarded, but regeneration is clearly poor.

A small number of conifers have been planted into the wood, and a single line of poplars on either side of the metalled road through the wood.

The ground flora is exceptionally poor, being totally absent under closed canopy hornbeam and under Rhododendron. A few elder bushes survive under the hornbeam canopy. Elsewhere bracken, mercury (Mercurialis perennis), nettle (Urtica dioica) and cleavers (Galium aparine) occur, with abundant fireweed (Chamanaerion angustifoliom) in the recently pollarded areas.

The extension of Bockhanger Wood to the east differs from the rest of the wood and is mainly beech/oak/sweet chestnut high forest of about 150 years old.

Deer Park

Approximately 100 acres are devoted to the herd of 80 fallow deer. Part of the area is open grass heath and bracken with isolated groups and single trees.

The two major groups (Map: areas A and B) are mainly beech/sweet chestnut with some oak, horse chestnut and Sycamore. Most of these trees are about 150 years old or younger, with some beech of only 50 years in area B.

The scattered parkland trees are mainly oak, horse chestnut, ash with a few small groups of beech. Few trees exceed 250 years, although some of the oaks are possibly older. There is one large old Turkey oak.

Regeneration is absent, but a few specimen trees (oak and sycamore) have been planted.

Other areas

The rest of the open parkland marked on the map is mainly arable farmland and contains very few trees, however many of these are oaks.

Some small groups of old beech occur which may be of some faunistic value. There is a group of 4 very large broad crowned trees in Jacob's Plantation (Map: Area C) and another group of about 10 similar trees east of the Hall (Map: Area D).

A line of large limes runs from the area of the Hall to Barrack Wood.

Dead wood

Barrack Wood

Almost all the oaks of the north end are hollow with ample red heart rot and some accumulation of red mould. Fallen trees and limbs appear to be left to rot where they fall. This area is very reminiscent of Staverton Park, Suffolk, although the trees are slightly smaller and have been pollarded more recently.

Most of the hornbeams are hollow with rotten interiors, although many of the interiors exposed seem rather hard and little attacked by Coleoptera. Very few fallen branches from the hornbeams were observed.

Bockhanger Wood

Very few oak pollards occur here, but all were highly suitable for timber-utilising invertebrates. The older hornbeams are almost all hollow, or more commonly, merely shells or parts of the sapwood and bark of the old trunk. Although galleries and flight holes are common in the dead wood, some trees present only dry hard surfaces and are little colonised. Numerous fallen parts of trunks are lying around and all of these exhibit extensive attack by wood-boring fauna.

Deer Park and other areas

There are very few hollow trees in these areas, and fallen branches seem to be tidied up rapidly (for firewood). There is little of interest in these areas other than dead limbs in the canopy of trees, of which there appeared to be rather few.

Succession

The prospects for succession of oak in Barrack Wood are not good. There is a large generation gap (probably 150 years) to the few young oaks in the wood and regeneration appears to be negligible.

The prospects for hornbeam are better especially in Bockhanger Wood where quite young pollards exist.

Summary

Two areas here are of particular interest for dead wood fauna. The northern end of Barrack Wood contains an area of old oak pollards, almost all hollow and with ample heart rot, and some hornbeam pollards. There are few young oaks, and there must be at least a 150 year generation gap to the few young trees present. Dead wood is plentiful. Bockhanger Wood is mainly hornbeam pollards and natural regeneration. Pollarding of quite young trees has been done in recent years and was done in the winter of 1974/1975. A few old oak pollards are also present. There is ample evidence of insect attack on dead wood of both oak and hornbeam, and these areas could well repay entomological survey in the future.

Paul T. Harding

HATCH PARK

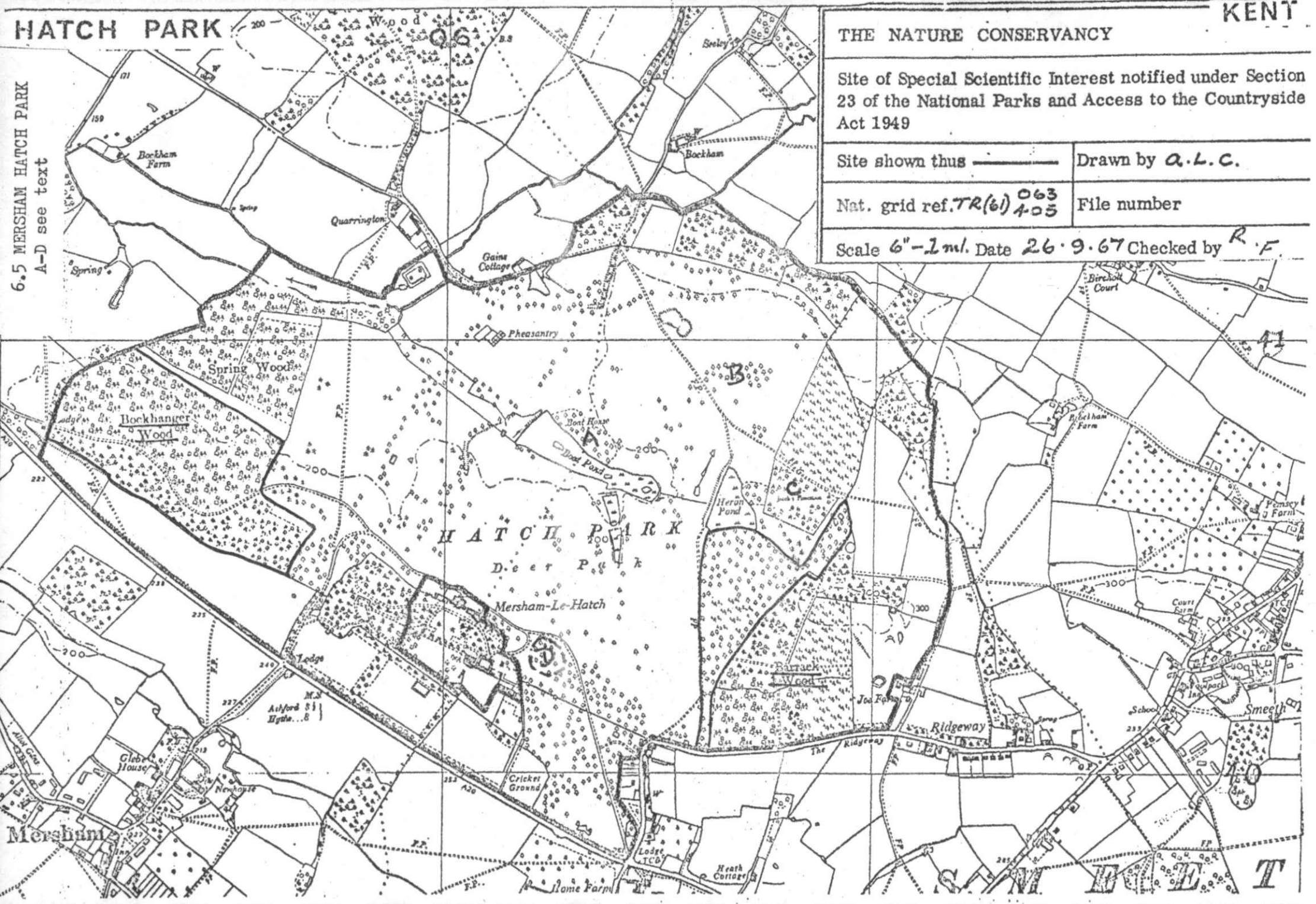
KENT

6.5 MERSHAM HATCH PARK
A-D see text

THE NATURE CONSERVANCY

Site of Special Scientific Interest notified under Section 23 of the National Parks and Access to the Countryside Act 1949

Site shown thus ———	Drawn by A.L.C.
Nat. grid ref. TR(61) 063 405	File number
Scale 6"–1 mi. Date 26·9·67 Checked by R.F.	



PARHAM PARK AND NORTH PARK WOOD

SUSSEX

National Grid reference : 51/059148

Visited : 11 August 1975

Owners : Mr. & Mrs. Tritton. Agent : Mr. A.K. Hughes, Parham Estate Offices, Parham, Pulborough, Sussex, RH20 4HS

The park proper, most of which is open to deer, and North Park Wood differ widely in structure and in scientific interest, and are dealt with separately.

The Deer Park

Almost all the southern half of the estate is open to deer, being enclosed by an elegant wooden slatted fence. They are excluded from 5 small areas of woodland, The Folly, Ash Copse, Paddock Wood, Buck Brow and Strawberry Grove, and from an area of pasture between Ash Copse and Paddock Wood. Cattle clearly graze over all the area except the small woods but at the time of my visit they were contained in the north-eastern part of the park.

Much of the park is open unimproved grassy heath with bracken at varying densities. Bracken is commonest in the northern part of the park. Clearly the park has been landscaped on various occasions, with avenues of limes and other trees to the West Lodge, an avenue of limes running east-south-east of the house, and a lime grove near the church. There is evidence of some ornamental planting of elms, possibly in avenues, in the late 18th century. Most of these trees are senescent and almost all have Dutch elm disease and many have clearly been felled in recent years. It is probable that these recent plantations are replacements for earlier plantings of mixed species which included cedar in addition to pine, beech, sycamore, holm oak and both chestnuts, some of which still remain in and around the newer plantation.

The principal tree of the park is, however, oak. It is scattered throughout the park, but there are 4 areas of particular note (see map).

1. Almost closed canopy oak high forest of trees of about 4-5 m breast height girth (circa 250 years old) and a few younger trees over bracken/grass on undulating ground. There are a couple of very old oaks of 7-8 m breast height girth which are being shaded out by the surrounding trees. Hawthorn is plentiful and there are numerous fallen limbs.

2. A very similar area to the above, around the slopes of Fangrove Hill. Trees are of similar proportions with five ancient trees. Hawthorn is very plentiful on the upper slopes of the hill and has been planted in places apparently for game cover. The valley bottom has a small plantation of poplars.

Both the above areas seem to have been the site of former extractive works. The name given on O.S. maps is Limekiln Plat, and area 2 contains an old clay pit and the remains of an old brick kiln.

3. South of Woodmill Pond is a north facing slope with a scatter of oaks of between 200 and 300 years, most are pollards with girths of 4 m to 5.6 m. There are some streamside elms of 190-200 years (ring counts on stumps) but most are dying.

4. To the south-west of Paddock Wood is a small group of about 20 very large ancient oak pollards all of which are hollow and have very large girths (up to 7-8 m). These are isolated in an area of grassy heath, with no younger trees nearby other than in Paddock Wood itself.

North Park Wood

Most of this woodland has been afforested with conifers or mixed broadleaf/conifer plantations, but some areas of oak/beech high forest with holly, birch and rowan still remain, the best areas being on the eastern side around Withy Piece. However, some of the oak is being felled and some fine examples of mature trees were found in the woodyard. They appeared to be 150-175 years old with girths of about 3 m.

There are some ancient oaks similar to those in the park mentioned above. These lie along the road-side on the east side of Ash Bit. They are probably old boundary pollards. There is also a few old oaks and beech along the northern edge of Ash Bit and the south-western corner of Little Rookery.

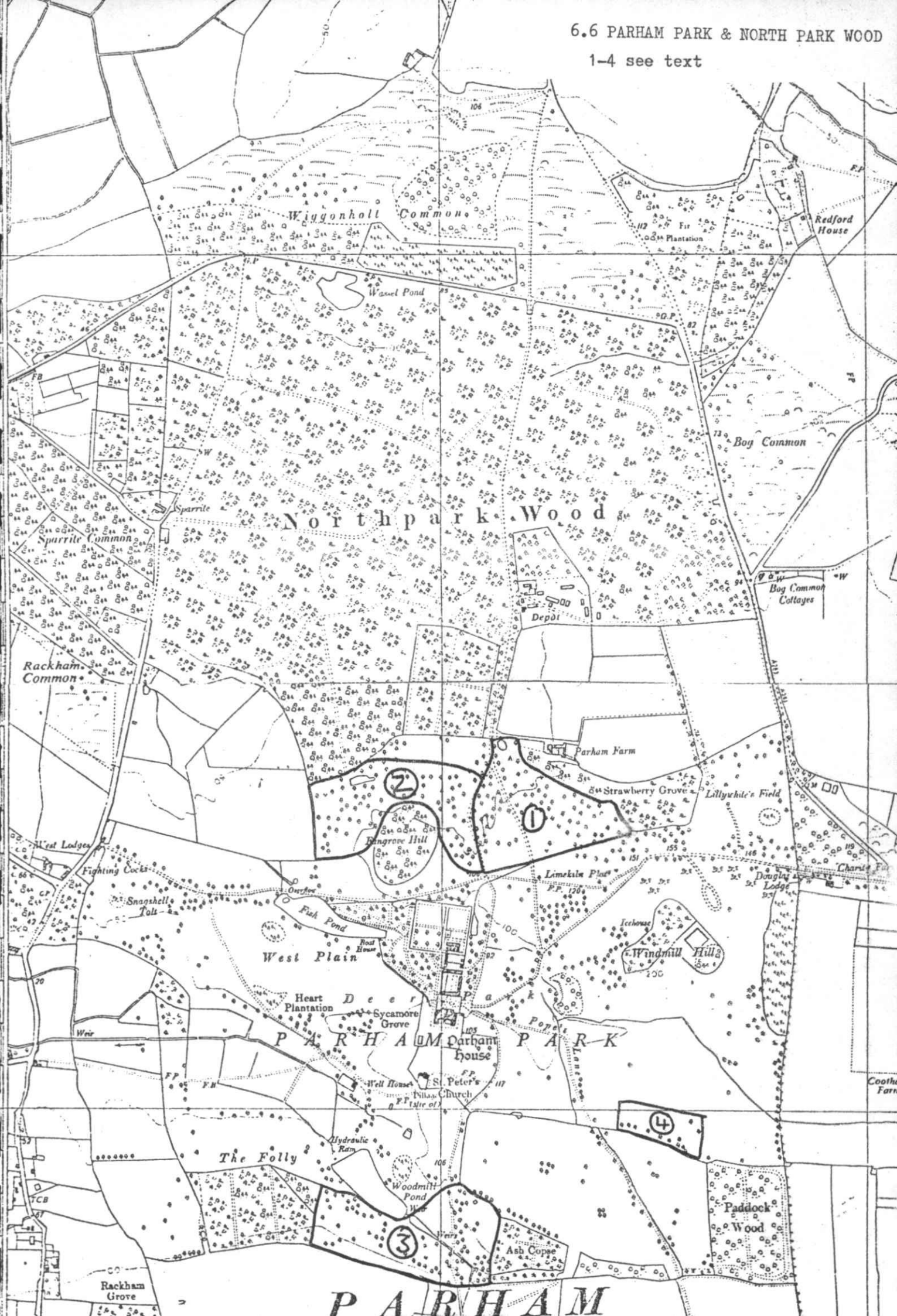
Summary

The Deer Park is open to grazing by deer and cattle except for a few small areas of woodland, and an area of pasture. Much of the park is open unimproved grassy heath with scattered bracken. Oak is the most abundant tree and is scattered throughout the park although there are four areas of particular note for the density of oaks, their size, and in some cases the range of age classes. Probably the best area is between Parham Farm and Limekiln Plat, extending westwards around Fangrove Hill. Other areas lie south of Woodmill Pond and north and west of Paddock Wood. Some oaks are huge and hollow, but fallen dead wood is scarce. There are also some old ash and elm in the park, but most of the elms have got Dutch elm disease and several have been felled. North Park Wood contains some good areas of mature oak. Parham Park and Woods is probably the "Pulborough" site referred to by several 19th century Coleopterists. The area was also collected in during this century by Nicholson and others, and is probably still of considerable entomological interest.

Paul T. Harding

6.6 PARHAM PARK & NORTH PARK WOOD

1–4 see text



THE INVERTEBRATE FAUNA OF THE MATURE TIMBER HABITAT

SURVEY OF AREAS

7. South-west England Region

The following areas have been visited as part of a national survey commissioned by N.C.C. from I.T.E. The background and sources of this survey are outlined in the contract report of March 1976. Some areas were reported on in detail. These reports are included herewith in numerical order according to the following list. The remaining areas have, for various reasons, not warranted detailed reports. Summary descriptions of them have been made and included in either of the contract reports (March 1976 or March 1977) where the descriptions appear in the numbered "Area Descriptions" section.

All visits were made by P.T. Harding, almost invariably with the prior permission of the owner or his agents (except in the case of public access areas). All opinions expressed are related to the conservation value and potential of a given area for the invertebrates of mature and overmature trees, dead wood and associated biotopes.

Area, County	Date visited	Report number/ Area description
Badminton Park, Avon	August 1976	7.1/1977-16
Boconnoc Park and Woods, Cornwall	September 1977	7.2
Lanhydrock Park, Cornwall	September 1976	7.3/1977-17
Marsland Valley Woods, Cornwall	(September 1973)	7.4/1976-32
Arlington Court Park and Woods, Devon	September 1976	7.5/1977-18
Powderham Castle Park, Devon	September 1975	7.6/1976-33
Shute Deer Park, Devon	September 1975 et seq.	1977 Appendix I
Woody Bay, Devon	September 1976	1977-19
Creech Great Wood, Dorset	September 1975	7.7/1976-35
Lulworth Castle Park, Dorset	September 1975	7.8/1976-36
Melbury Park, Dorset	June 1975	7.9/1976-37
Tyneham Woods, Dorset	September 1975	7.10/1976-38

BADMINTON PARK

AVON

National Grid reference : 31/8083

Visited : 6 August 1976

Owner : Duke of Beaufort

Badminton Park lies on undulating ground at about 130 m above sea level. The underlying strata are of the Oolite (Jurassic), and much of the park grassland appears to be on neutral or calcareous clays.

The only area of relevance to the survey is area 3 on the map, with two small outlying areas of interest (5 & 6). The park formerly covered over 1000 acres.

Area 1. An elm grove with a few scattered oaks. Almost all the elms have been felled in the last year and the remainder have died in 1976. Dutch elm disease seems to have killed every elm in the park.

Area 2. Arable farmland with a 100 year beech clump on the western edge, and with scattered ancient oaks elsewhere. All the oaks seem to be suffering from root damage and are badly heat sterilized.

Area 3. The Deer Park. This contains almost all the oldest trees in the park. The oldest oaks are in the north-east of this area and seem to be associated with banks and ditches. There are also small areas of ridge and furrow in the extreme north of the area in between two lines of the oldest oaks. There are several dead oak pollards. Elsewhere there are occasional ancient oaks, but most are 150-250 years old. Some are in groves and there is an area of closed canopy oak in the south-east. Trees of less than 100 years are scarce, but replacement oaks of up to 30 years have been planted along the avenue to Luckington Gate. There are many 200+ years old elm throughout the deer park, but all are dead. There are also a small number of beech, lime and horse chestnut mainly in the western half of the park. There are a few old, small field maple in the eastern park, and scattered hawthorns. Unimproved grassland throughout.

Area 4. Improved grassland with scattered old oaks and various other species including exotics.

Area 5. Similar to area 3, but with improved pasture.

Area 6. Overmature beech grove with many decaying trees as well as some fine mature specimens.

Summary

Badminton Park contains about 300 acres of open oak parkland with some ancient trees. This is the deer park containing circa 50 fallow and 250 red deer. There are numerous dead elms, but these will probably all be felled and burned or removed in the near future. The ancient oaks are mainly in the north-east, with about 10-15 dead individuals. Fallen dead wood is not abundant, but some lying wood is present. Hollow oaks are very scarce.

The area is probably of considerable potential for dead wood fauna although one must reserve one's judgement because of the unknown (to me) history of the site. The park is in a position and is on soils which would suggest that cultivation or pasturage, in the past, was likely.

Paul T. Harding


7.1 BADMINTON PARK
1-6 see text
BADMINTON PARK
Little Badminton
Deer Park
Great Badminton
GREAT BADMINTON
ACTON TURVILLE
Petty France
Dunkirk
Britain Bottom
Dunkirk Farm
Folly Farm
Hinnegar
Back Warren
The Gorses
Ragged Castle
Chilbury Hill
Sopworth
Sopworth Farm
Duchess's Clump
Badminton Down
Luckley Brake
Luckley Farm
Wick Farm
Lord's Copse
Worcester Clump
Shepherd's Lodge
Old Quarry
Cherry Orchard
Lyppiatt Barn
American Barn
Little Badminton Farm
Hermit's Cell
The Mount
Park Pond
Allengrove Farm
Allen Grove
Giant's Cave
Slait Lodge
Castle Barn
Bath Lodge
Roach's Lane
Vicarage Plantation
Splash Pond
Fatting Barn
Badminton Farm
Cope Farm
Hebden Leaze
Hebden Farm
Lyegrove Farm
Withy Moor
Air Shaft
Portcullis House
Badminton Station
Rewhouse Farm
Oaks Lane
Warren Barn
Ivy Leaze
Littleton Dr
Old Down Road
Malmesbury 9
Malmesbury 18
Bristol 16
Bath 14
Gloucester 23
Bath 15
Tetbury 8
Tetbury 15
B4040
78 TORMARTON
79
81
82
NETTLETON

BOCONNOC PARK AND WOODS

CORNWALL

National Grid reference : 20/1460

Visited : 1 September 1977

Owner : Captain Fortescue Agent : B.H. Tweedale for Savills

Having tried to gain entry to Boconnoc since June 1975 I was able, through the offices of Peter Tinning (N.C.C., A.R.O. Cornwall), to visit the parts of the park and woods which have been included in the S.S.S.I. We met Capt. Fortescue and Mr. Tweedale before seeing the estate and Mr. Tweedale accompanied us to one of the parts of the S.S.S.I.

Boconnoc Park and woods are considered by lichenologists, particularly Dr. Rose, to be one of the most important localities for epiphytic lichens in Britain. 188 species of epiphytic lichens have been recorded from parts of 600 ha of the enclosed parkland and woodland. However, the S.S.S.I., the area we were permitted to visit, is only 30.3 ha in area. It contains the most important areas for epiphytic lichens. We were able to see, at a distance, most of the parkland area remaining on the estate but large areas of woodland were closed to us.

Description

Boconnoc Park and woods lie in the valley of the River Lerryn which runs roughly north-south through the estate. Several tributary streams run into the river and the whole area is steeply undulating. The rainfall is apparently high and as the underlying geology is of Devonian sandstones, the soils are neutral to acid loams. The ground flora reflects the acid facies, with few species and extensive areas of bracken in unimproved pastures.

The S.S.S.I. is in 5 units (see map) of which only two are open canopy pasture-woodland, the other units being more or less closed canopy, uneven-aged, high forest.

1. This is the largest single area. Most of it lies on the north and east facing slopes of a tributary stream and of the River Lerryn. The woodland is composed of oak and beech with a variety of mainly alien species including sycamore and sweet chestnut. Beech and sycamore are regenerating freely, and a few small oak seedlings were observed. Dead wood is scarce except for a few fallen trees which have clearly decayed very rapidly in the damp conditions.

Part of the woodland is closed canopy but there are small breaks, possible where trees have been felled, where beech and sycamore saplings are abundant.

2. A few mature maiden oak, holly and ash trees in a scattered group in an area of improved riverside pasture.

3. This area was not entered, but it appeared to be an area of almost closed canopy high forest with beech and oak.

4. Part of the deer park. This area contains the largest number of mature oaks seen in the S.S.S.I., together with some large beech trees. Fallen dead wood and a few decaying boles (mainly beech) are present here. Dead wood in trees is scarce and where present shows little sign of insect attack. The area has the appearance of having formerly been more open with oak being planted among older oaks and beech which had developed in open condition. The ground flora is dominated by bracken.

5. The only other part of the deer park with any number of trees. This small area is a sheltered valley between Heronshill Plantation and Heronshill Wood was perhaps the most impressive area of pasture-woodland seen. It contains groups of beech trees, a few oaks and numberous hawthorns in an excellent matrix of unimproved grassland and scattered bracken. Dead wood is plentiful and most is in sheltered situations under mature trees.

Evaluation

Boconnoc Park and Woods are incontrovertibly of great importance for epiphytes but they proved to be disappointing in terms of habitats for dead wood fauna. Most of the trees appear to be mature, but few overmature and no truly ancient specimens were seen. Most of the older trees appear to be of plantation origin and certainly the park was landscaped, according to Capt. Fortescue. Fallen dead wood clearly decays rapidly in the humid conditions resulting from the high rainfall in enclosed valley situations. Hollow trees or evidence of heart rot in oak or beech are almost totally lacking.

Management

The management of the S.S.S.I. and the rest of the park and woods is clearly directed towards obtaining some return from mature timber trees. Any agreement over the management of the S.S.S.I. which is made to allow for the interest of the epiphyte flora is likely to benefit what invertebrate fauna is associated with the mature trees. Only in areas 4 and 5 should a special case be made for the retention of the oldest trees, rotten boles and fallen dead wood.

Summary

The Boconnoc Park and Woods S.S.S.I. is only a small part of the complex of woodlands and parkland on the estate. The visit was limited to the S.S.S.I. only. Only two areas, in the deer park, appear to be of relevance for the fauna of overmature trees. In these areas some oak and beech have become overmature and some other dead wood is present. The remaining parts of the S.S.S.I. include two small areas of pasture-woodland with mature trees, and a large area of mainly closed canopy high forest, beech and oak dominated woodland. The geographical position, high rainfall (with the consequent rapid decay of timber) and the lack of large numbers of old trees make it probable that this site is not of importance for the specialised fauna of dead wood habitats. This probability does not detract from the importance of the site for epiphytes and it would in fact be of considerable academic interest to have a faunistic survey of the site to establish just what species of timber fauna are able to withstand the climatic conditions found at Boconnoc.

Paul T. Harding

1-5 see text


BOCONNOC PARK
Dawna
Dawna Wood
Brownshill Wood
Drinking Fountain
Kilmanant
Downpark Plantation
River Lerryn
Stewardry
Obelisk
Battery
Obelisk Plantation
Pinetum
Bathing Pond
Church
Cross
The Bastion
Boconnoc
Monument
Park Lodge
The Lake
CEMETERY
Spring
Brooks
Boat Ho
Tale Lodge
Penvose Wood
Penvose Nursery Wood
Quarry
Trevego
Higher Talty
Cricket Ground
Heronshill Wood
Millcoombe Wood
Millcoombe Bridge
Weir
Ford
Bramblecoombe Wood
Heronshill Plantation
Polpiece Wood
Polpiece
Colwood Wood
Grimshall Wood
Grimshall
Lodge
Smy
Couchsmill
Meth Chap
Nethertown
1
2
3
4
5
14
15
Scale 6" = 1Mile

LANHYDROCK PARK

CORNWALL

National Grid reference : 20/0863

Visited : 22 September 1976

Owner : National Trust

Lanhydrock Park lies on the western side of the Fowey valley between Bodmin and Lostwithiel. It is mainly on a slope and valley running down to the south east from the house. Much of the park is open improved grassland with ornamental plantings of specimen trees and groves, probably of early 19th century origin.

The oldest trees of the park (see map) are mostly oak pollards, probably associated with pre-enclosure boundary banks now almost obliterated within the parkland. Some of the pollards are of a considerable age and may be as old as or older than the original house (early 17th century). These oaks are rich in epiphytes (as are many of the other trees of the park) and may be of some value for timber utilising fauna. However, insect attack on exposed dead limbs within the pollards seems slight and may be limited to a few commoner species.

There is an interesting area of older oaks in the valley bottom north of Great Wood. This appears to be used for pheasant rearing. It contains some overmature oaks with abundant decaying limbs and fallen dead wood. The wildlife potential of this area is high, for dead wood fauna, epiphytes, as well as birds. It is particularly valuable being elongate and therefore having a high ratio of margin to total area.

Summary

Much of the park is open improved grassland with 19th century plantings of specimen trees and groves. There are some older trees, mostly oak pollards which are mainly associated with pre-enclosure banks. There is a small area of neglected woodland below the house which contains some good overmature oaks. There is little evidence of a good dead wood fauna.

Appendix - Management Suggestions

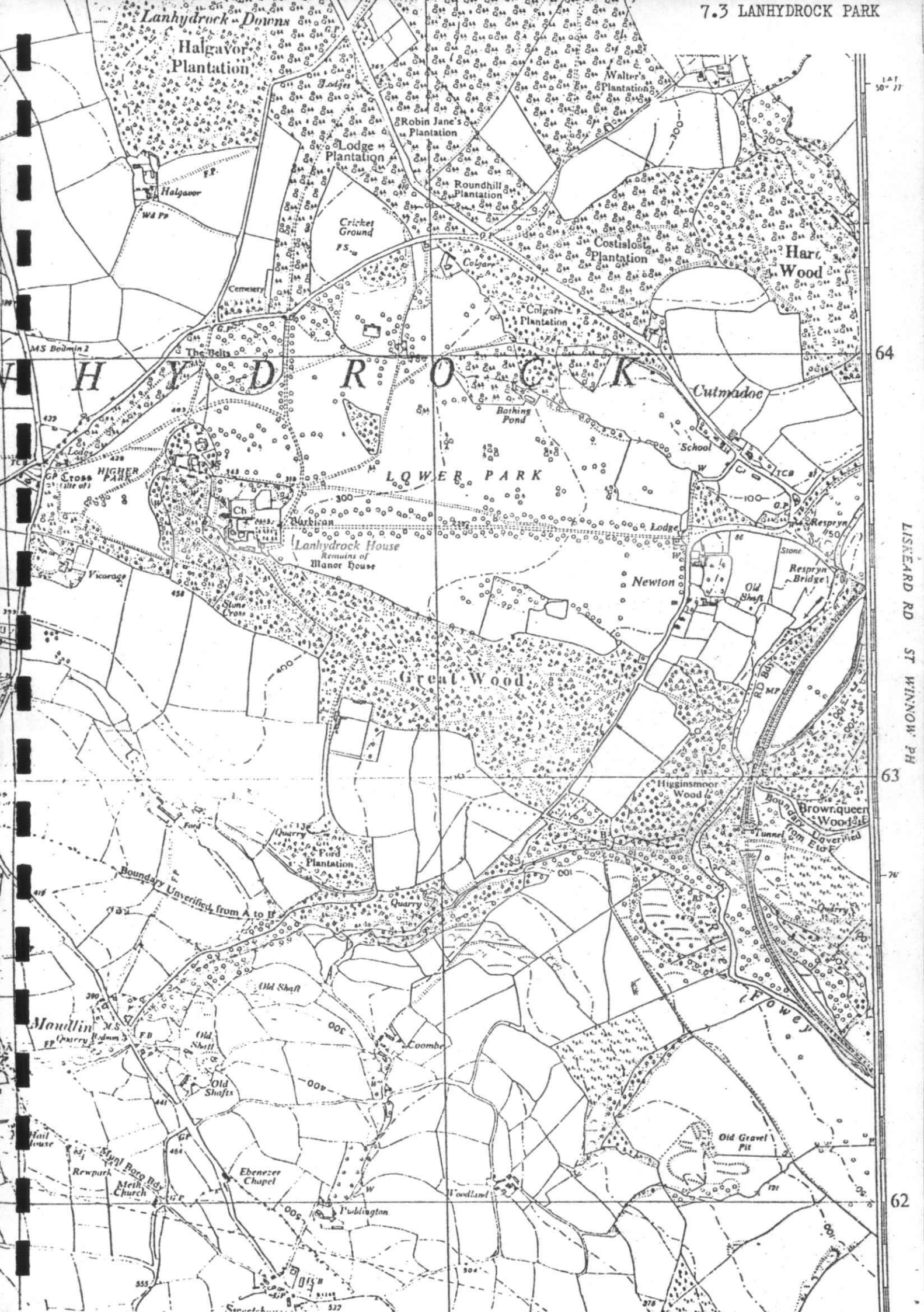
1. Old pollard oaks should be retained and fallen dead limbs from the trees left nearby, at least in the remoter parts of the park.

2. The excellent replanting of groves etc that has gone on should continue using oaks of known local provenance where possible.

3. Cosmetic tree-surgery should be limited in the case of oak and beech to those trees with a dominating visual impact in the park and to the areas of roadways and public paths.

4. The area of old oaks in the valley bottom should be left unmanaged except to plant a few young oak of local provenance into any existing canopy gaps in order to provide for succession.

Paul T. Harding


Lanhydrock Downs
Halgavor Plantation
Lodges
Walter's Plantation
Robin Jane's Plantation
Lodge Plantation
Roundhill Plantation
Halgavor
Wd Pp
Cricket Ground
Costislost Plantation
Hare Wood
Colgare
Colgare Plantation
Cemetery
MS Bodmin 2
The Belts
LANHYDROCK
Cutmadoc
Bathing Pond
School
Lodge
HIGHER PARK
Cross (site of)
LOWER PARK
Ch
Barbican
Lanhydrock House
Remains of Manor House
Lodge
Respryn
Stone
Respryn Bridge
Viscarage
Stone Cross
Newton
Old Shaft
Great Wood
Higginsmoor Wood
Brownqueen Wood
Tunnel
Boundary Unverified from E to F
Ford
Quarry
Ford Plantation
Boundary Unverified from A to B
Quarry
Old Shaft
Maudlin
MS
Quarry
Bodmin 3
FB
Old Shaft
Coombe
Old Shafts
Hall House
Rewpark
Meth Church
Ebenezer Chapel
Woodland
Publington
Old Gravel Pit
Fowey
LISKEARD RD
ST WINNOW PH
64
63
62

MARSLAND VALLEY WOODS

CORNWALL

National Grid reference : 21/2217

Visited : 27 September 1973

Owners : Society for the Promotion of Nature Conservation and Mr. G. Marsh, Marsland Manor, Morwenstow.

A steeply sloping sessile oak woodland with scattered hazel coppice throughout. Most of the oaks appear even aged, with many obviously having been coppiced, and others possibly having been pollarded at 2.5 metres. These pollards are the largest trees and some have girths of about 1 metre. Scattered through the wood are holly, hawthorn and rowan, with elm on the northern and southern edges associated with boundary banks/walls. Beech is also present, occurring on the boundary bank of the southern edge of the wood.

Sycamore and ash are regenerating freely from isolated parent trees and both species could prove to be aggressive invaders into the oak/hazel coppice. Alder coppice in the valley bottom has been neglected for at least 30 years and is becoming rather unstable.

At the seaward end of the valley a transition from oak/hazel woodland via hazel scrub with occasional oak and sallow to gorse and bramble scrub occurs. The stream gorge in this area is very steep sided and is mainly covered with oak woodland.

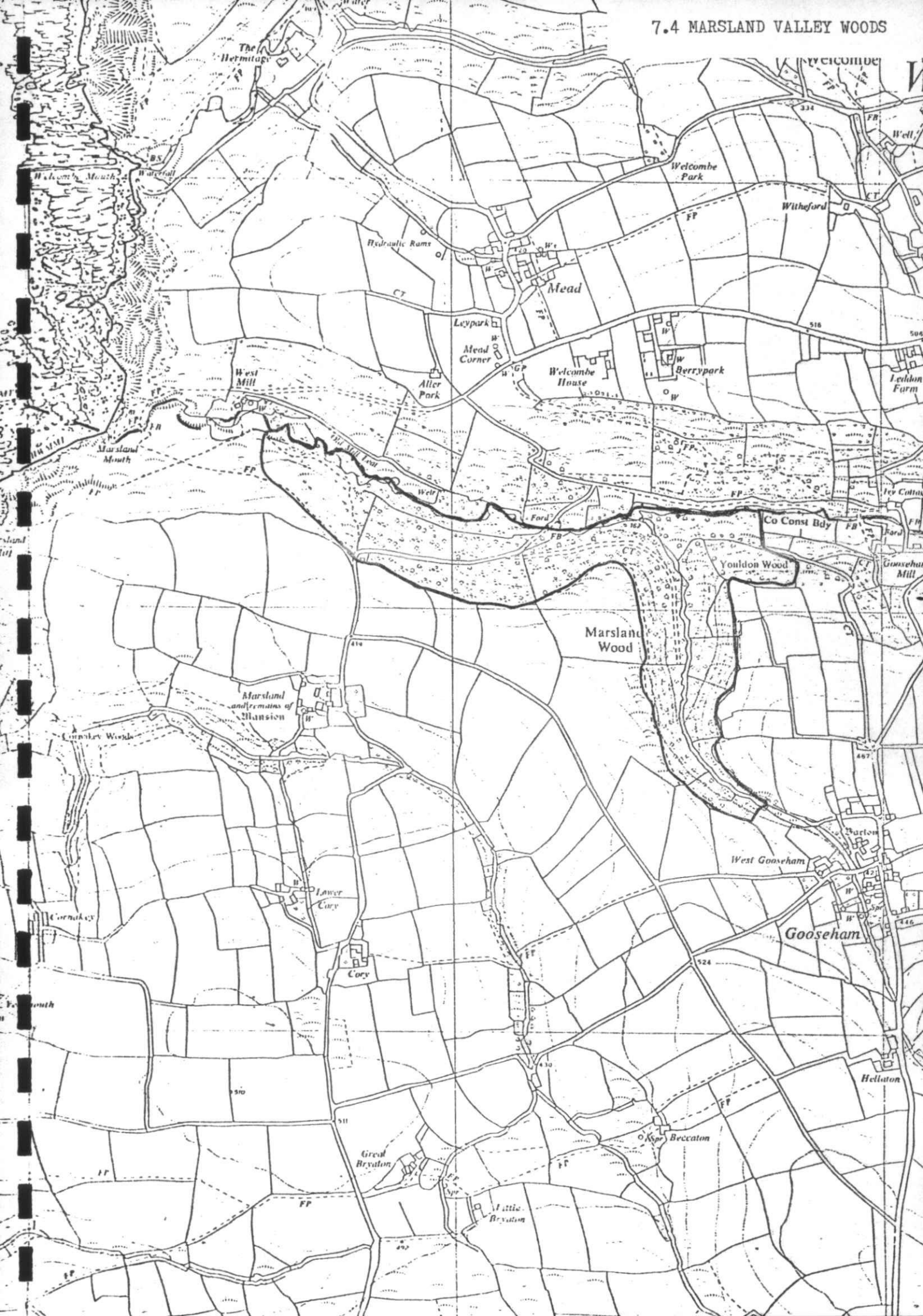
The ground flora appears to be rich in the woodland, and the epiphyte flora is clearly rich with many fine examples of Lobaria pulmonaria.

Fallen dead wood clearly decays rapidly in the damp conditions, but the pollarded oaks, some of which are hollow, provide additional dead wood habitats not usually found in woods of this type.

Summary

Oak/hazel woodland on the steep north-facing slope of a valley running up from the sea. Alder woodland in the valley bottom. Oak/hazel scrub at the seaward end of the valley. Many oaks have been pollarded at 2½ metres or are coppice growths. Few large trees, but plentiful dead wood. Very rich in epiphytes. A good example of oak woodland under extreme Atlantic conditions.

Paul T. Harding


The Hermitage
Welcombe Mouth
Waterfall
Welcombe Park
Witheford
Hydraulic Rams
Mead
Leypark
Mead Corner
Welcombe House
Berrypark
Aller Park
West Mill
Marsland Mouth
Mill Leat
Ford
Co Const Bdy
Youldon Wood
Marsland Wood
Marsland and remains of Mansion
Lower Cory
Cory
West Gooseham
Gooseham
Hellaton
Beccaton
Great Bryaton
Little Bryaton

ARLINGTON COURT PARK AND WOODS

DEVON

National Grid reference : 21/6040

Visited : 21 September 1976

Owners : National Trust

The park, lying to the south of Arlington Court is very open, now mainly improved pasture grazed by sheep and ponies. There are some overmature beech pollards, either singly or in groups of three, some of which are planted in curious low walled enclosures which are now entirely filled by the roots of the trees. There are also some groups of 100-150 year old oaks and conifers. Recent planting of single specimen trees has been mainly of beech and various exotic species including conifers. Dead wood is almost completely absent.

The woodland in the valley of the River Yeo is mainly mixed plantations of 100-150 year old oak, beech and a few conifers. These plantations have been managed during the last 25 years and some timber (mainly conifers) has been extracted. Some areas have been clear-felled and there are young plantations (P.1950-P.1975) of conifers with beech and oak as a final crop. In the remoter parts of the valley there are a few areas of oak over hazel coppice-with-standards (eg Hammett's Wood) in which the hazel has been coppiced quite recently. All the woodlands are rich in tree and shrub species and the ground flora appears to be composed of a wide variety of species probably reflecting a variety of soil types in the neutral to acid range. Luzula sylvatica dominates in some places. Except in the coppice woodland, Rhododendron is everywhere plentiful and in places dominates the shrub layer. There are some streamside alders, and ash is quite common on the lower slopes.

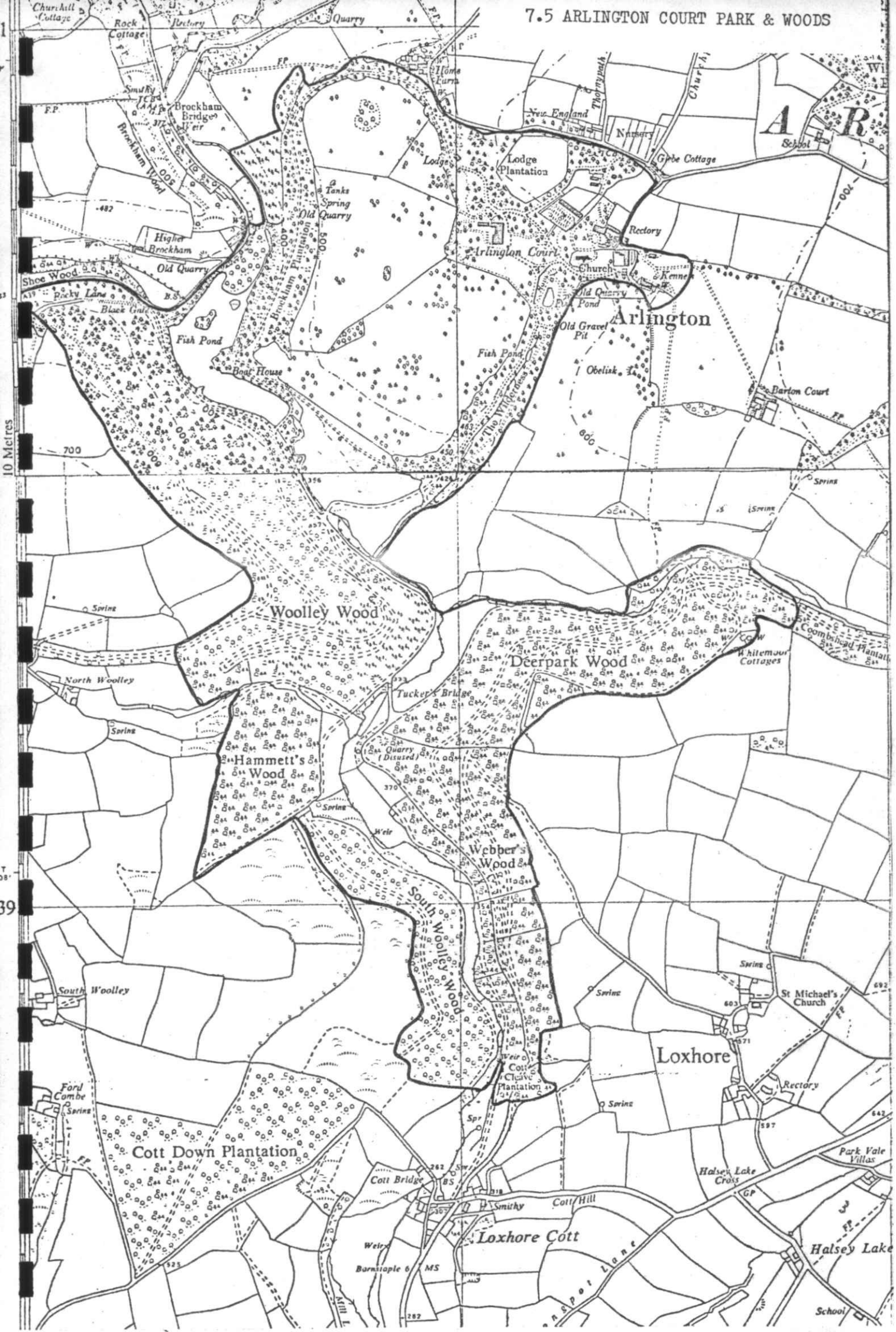
Trees of over about 150 years old are uncommon, but some of the oldest oak standards are clearly greater than this age. The woods are actively managed, but despite this, in the coppice-with-standards and the older high forest areas, dead wood is left to lie where it falls. However as few trees are overmature, there is, overall, little dead wood.

Summary

The park contains a few overmature beech, but because the area is kept very tidy, there is no dead wood present. The woodlands of the River Yeo valley contain some mature beech and oak, but relatively little dead wood is present. The woodlands are a mixture of coppice-with-standards and high forest

with some conifers, and some post 1950 plantations of conifers with beech and oak. Although clearly a rich area for epiphytes there is little of particular interest to suggest that a rich dead wood fauna would occur here.

Paul T. Harding


Churchill Cottage
Rock Cottage
Rectory
Quarry
F.P.
Home Farm
Brockham Bridge
Weir
Brockham Wood
Brockham Plantation
Tanks
Spring
Old Quarry
Higher Brockham
Old Quarry
Shoe Wood
Ricky Lane
Black Gate
Fish Pond
Boat House
New England
Thornypark
Nursery
Lodge
Lodge Plantation
Gipsy Cottage
School
Rectory
Arlington Court
Church
Kennels
Old Quarry Pond
Old Gravel Pit
Arlington
Fish Pond
Obelisk
The Wilderness
Barton Court
Spring
Woolley Wood
North Woolley
Tucker's Bridge
Deerpark Wood
Coombshead Plantation
Whitemoor Cottages
Hammett's Wood
Quarry (Disused)
Weir
Webber's Wood
South Woolley Wood
South Woolley
St Michael's Church
Loxhore
Rectory
Cott Cleave Plantation
Ford Combe
Cott Down Plantation
Cott Bridge
Smithy
Cott Hill
Loxhore Cott
Halsey Lake Cross
Park Vale Villas
Halsey Lake
Barnstaple 6 MS
Mill
School

POWDERHAM CASTLE DEER PARK

DEVON

National Grid reference : 20/970829

Visited : 8 September 1975

Owner : The Earl of Devon. Contact : Lord Courtney, The Estate Office, Powderham Castle, Exeter, EX6 8JQ

Powderham Castle stands on the end of a spur of higher ground above what must have been flood meadows and salt marsh along the Exe estuary. The original castle was built in the 14th century, and presumably the surrounding estate was annexed at the same time. The castle is surrounded by about 300 acres of open parkland, the northern half of which is a deer park with a herd of about 100 fallow deer.

Much of the southern park is open grassland with a few ornamental groups of trees including Luccombe and turkey oaks and horse chestnut. This area is unlikely to be of interest for dead wood fauna, but much of the grassland seems to be unimproved and may be of botanical interest.

The deer park contains many native oaks (Q. robur) especially in the north-eastern (Map : area 1) and north western (Map : area 2) corners. Elsewhere in the deer park native oaks are mixed with Luccombe and turkey oaks, and horse and sweet chestnuts. The ground vegetation is mainly mixed unimproved grassland with bracken. In the north-eastern corner the native oaks form open canopied park woodland over dense bracken (Map : area 1).

Many of the Q. robur in the deer park are well over 300 years old with girths on maiden trees of up to 6.1 m. Some of the older trees are stunted and/or pollards, especially those on sloping ground to the north west of the castle. There is a good range of age classes of oak within the deer park, the youngest trees being about 50 years old, and mostly planted.

Dead wood and heart rot inside oaks is present within the deer park, and in the remote north eastern part, dead wood appears to be left where it falls.

The remainder of the estate near the castle (Powderham Old Plantation and Warboro Plantation) are late 18th century/19th century plantations containing some old beech, but little else of interest.

Summary

From its geographical position the deer park is unlikely to contain truly

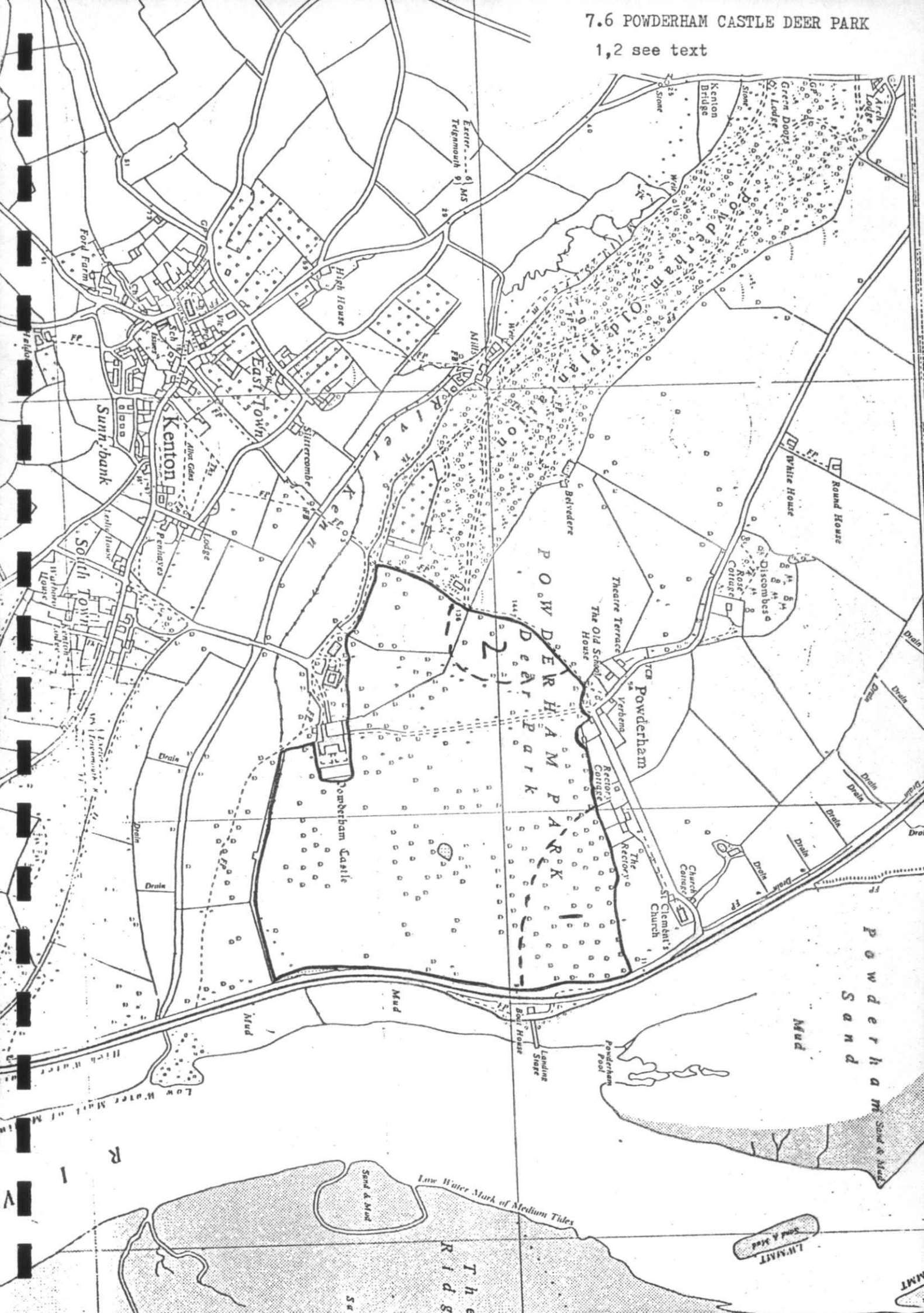
ancient woodland, but there is certain to be some element of continuity of tree cover associated with parkland around the 14th century castle.

Oak (Q. robur) is represented by a wide range of age classes from 50 to over 300 years. Dead wood is present, mainly in the north-eastern corner, where it appears relatively undisturbed. The deer park contains areas of unimproved grassland and bracken beds.

Paul T. Harding

7.6 POWDERHAM CASTLE DEER PARK

1,2 see text



CREECH GREAT WOOD

DORSET

National Grid reference : 30/892813 to 30/920820

Visited : 4 September 1975

Owners : English China Clays, Ball Clays Ltd.
(Partly within M.O.D. Lulworth Gunnery Ranges)

The wood lies on the steep north facing slope of the Purbeck Hills along the line of the Purbeck Thrust Fault between the Upper Chalk (on upper slopes) and the Reading Beds (lower slopes). Altitude varies between 60 m and 190 m along at least part of its length. It is bisected (unequally) by a minor road between Wareham and the western end of Purbeck. This road is busy with holiday traffic.

Although the wood lies on Chalk and Reading Beds, it exhibits mainly calcareous facies, the acid sandy soil on the lower slopes (Reading Beds) being masked by chalk scree and general calcareous downwash from the chalk above. Despite the thin soil over and among the chalk scree, coppice-with-standards woodland is maintained with hazel and ash predominating as coppice species, and oak and some ash as standards. Along the southern (highest) edge the standards are very stunted and form a canopy with the neglected hazel coppice. On the lower slopes the standards are good, well grown oaks forming almost closed canopy near the centre of the wood. The coppice has not been cut for about 40 years. In places it has over-reached the holding capacity of the roots in the thin soil and whole stools of hazel and ash have blown over.

The ground flora is not particularly rich. Much of the wood is dominated by Mercurialis, especially on the steeper chalk screes. On the lighter soils of the lower slopes, Dryopteris fern beds occur. The flora is richest along the horizontal rides (in closed canopy) and along the central part of the wood below the main scree area but above the lower sandy soils.

Epiphytes are present in good quantity with Polypodium and Dryopteris on old oaks and ash, and even on an old larch. Epiphytic mosses cover the lower parts of many old oaks, and lichens are plentiful on the branches. Although abundant, the mosses and lichens seem to be represented by rather few species. This is almost certainly not a reflection of the antiquity of the wood or the age of the standard trees, but of the position and aspect of

the wood - north facing over Poole Harbour with all its industrial works. It is almost certain that the lichen flora is impoverished because of aerial pollution.

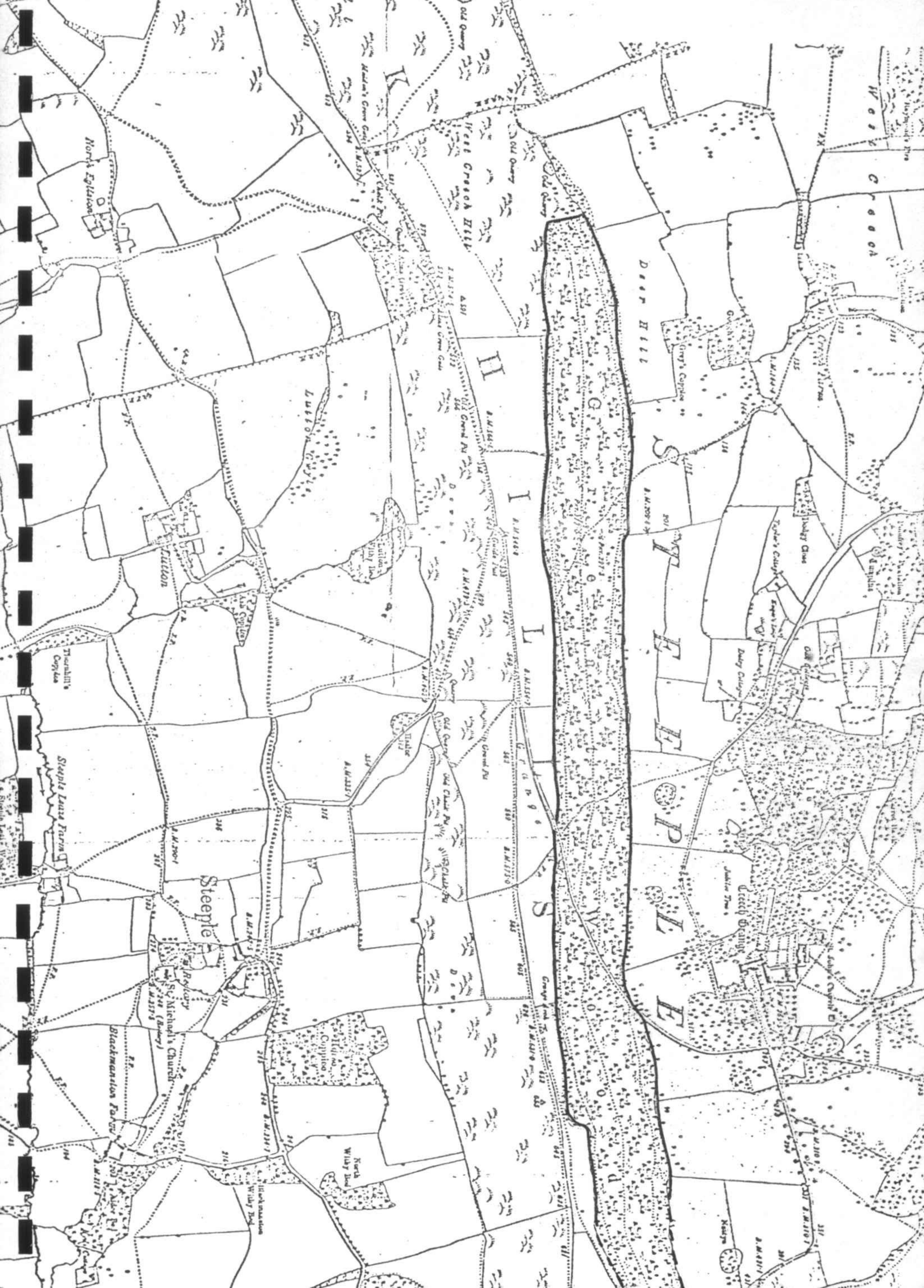
Almost all the standard trees are over 150 years old and some may be 250 years. It is impossible to age the stunted oaks along the top of the slope, but most are senescent, with dead limbs and heart rot. The dead wood interest of the site is probably concentrated in these few older trees (there are less than 50 individuals). Dead ash and hazel are plentiful but are mainly small in size and probably only of interest for the commoner dead wood utilizing fauna.

There is little regeneration of oak or hazel, but ash is regenerating freely in places. Few oak are younger than 100 years, so that if there is some interest in the fauna of the oldest oaks, there is a significant generation gap in the continuity of oak.

Summary

Creech Great Wood is an interesting example of coppice-with-standards woodlands on a steep slope spanning two differing geological strata. It is almost certainly an ancient wood. Old oaks are present, but there is a gap in the younger generations of oak and no regeneration. The epiphyte flora is probably impoverished because of aerial pollution from the Poole Harbour area.

Paul T. Harding


Steeple
Deer Hill
West Creech Hill
Lutton
St. Michael's Church
Steeple Lease Farm
Blackmanston Farm
North Egliston
Grey's Coppice

LULWORTH CASTLE PARK

DORSET

National Grid reference : 30/85 82

Visited : 4 September 1975

Owner : Sir Joseph Weld. The Weld Estate, Lulworth Castle, Dorset.

Agent : C.R. Rothwell, Esq.

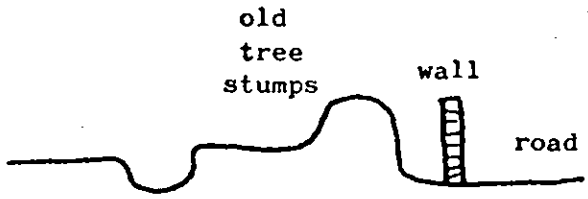
The woodlands and parkland around Lulworth Castle lie at the south eastern corner of the former Wareham Forest. Most of the parkland is fairly open grassland with a few clumps of oak. There are three areas of woodland around the parkland which are still under deciduous woodland.

The Wilderness (Map : area 1)

The area to the west of the castle and Roman Catholic chapel contains two walled gardens, one of which is now completely derelict. The rest of the area is probably the former Pleasure Grounds to the castle and was established some time between the building of the castle (late 16th century) and the early 18th century. It is now a mixture of maiden trees over grass and rough ground, part of which appears to be used for camping. The oldest trees are beech, some of about 200 years and a few possibly older. Some beech are dead but standing and a few have fallen or been cut down within the last 20 years and the main timber removed. There are some old sycamores a few of which are dead or nearly so. There are also horse chestnut, ash, oak and lime, all of which are mainly 150-200 years old. There are a few young naturally regenerated sycamore.

Edge Belt (Map : area 2)

A narrow belt of mature deciduous woodland runs east from the castle/Arish Mell vista to Bowling Green Wood. Part of the belt is within the gardens of the Manor House and of White Gate Lodge. Elsewhere most of the area is open to grazing by cattle from the park. Beech of between 130 and 170 years old (ring counts) predominate and there are some similarly aged oak and elm. There are some older oaks in the stretch immediately north-east of the War Memorial. These appear to be excellent sound maidens of about 250 years (3.5 m girth). Fallen branches are plentiful, and there are a few dead standing beech. The ground flora is heavily grazed and trampled and there is a little hawthorn scrub and holly regeneration. Although the park is enclosed by a wall along the roadside there is a distinct bank and ditch system inside the wall.



Bowling Green Wood (Map : area 3)

A mixed aged mature beech plantation with extensive Rhododendron scrub, and locally, areas of hazel coppice and holly regeneration. It lies on a slight dome capped by leached sandy soils. The beech woodland ends a little way north of the Bowling Green (now a Scout camp) giving way to a small area of bracken and young Rhododendron. North of this is a conifer plantation.

The oldest beech are probably about 200 years old and many are multi-stemmed. Younger trees (100-150 years), all of which have reached canopy height, are mostly single stemmed for at least the lower 10 m. There are a few oak, sycamore and conifers of about 150-200 years old. Sycamore has regenerated in small areas recently. Most of the beech appear to be sound and there is little dead wood except for a few fallen branches.

The Open Parkland

The Parkland has very few trees except for some 120-150 year oak and elm near the Estate Office block, and a few isolated old oak and sycamore (200 years plus). There is however a small area of some 20 gnarled pollard oaks to the south of Bowling Green Wood (Map : area 4). Some similar trees extend along outside the western wall of Bowling Green Wood (Map : area 5). The larger group (4) lies in an area of very irregular ground near a pond, among some dense clumps of Rubus. Although all the trees are gnarled, and most to some extent stag-headed, they are probably not even aged, with some possibly over 350 years old, and others of 200-250 years. Fallen branches are present, but no tree appears to be hollow or to have exposed heart rot, except in area 5 where some have heart rot, but with little evidence of insect attack.

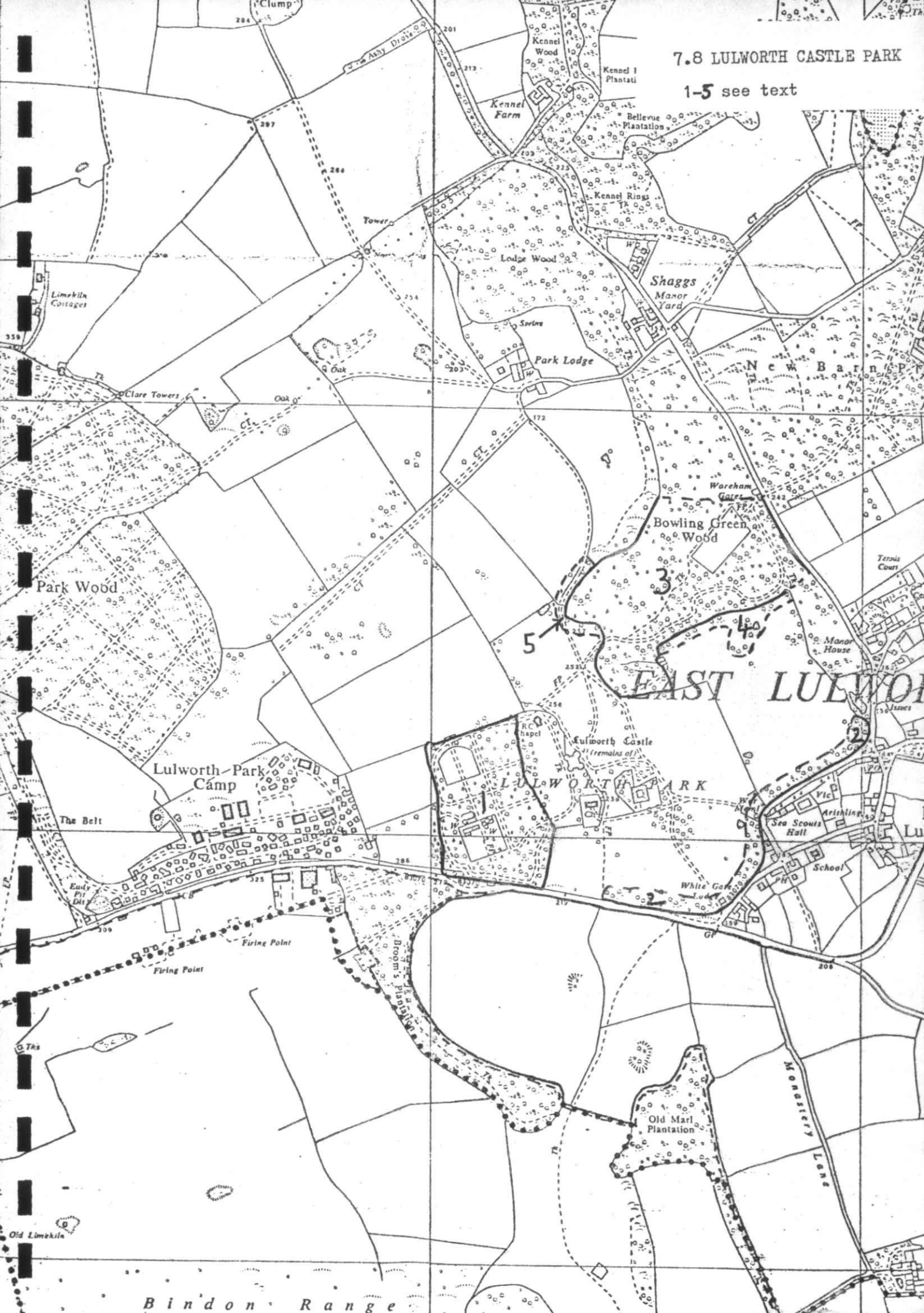
Dead Wood Evaluation

There are some dead old beech and sycamore in areas 1 and 2 and some ancient oak with shattered branch stumps and some heart rot in areas 4 and 5. Elsewhere dead wood is mainly in the form of fallen branches and other small wood. Some dead wood seems to be cleared, presumably for use locally as firewood. Clearly the interest of this park for its lichens must be enhanced by the presence of large sycamores and from its position at the head of a funnel shaped valley running up from the sea at Arish Mell.

Summary

Probably a remnant of the ancient Wareham Forest, the parkland consists of 3 areas of deciduous high-canopy woodland with much beech between 150 and 200 years old. There are also two small groups of oaks of up to about 350 years in open parkland. Dead wood is not plentiful and insect attack in dead wood seems limited.

Paul T. Harding


7.8 LULWORTH CASTLE PARK
1-5 see text
Clump
Abby Drove
Kennel Wood
Kennel Plantation
Kennel Farm
Bellevue Plantation
Kennel Rings
Tower
Lodge Wood
Shaggs Manor Yard
Limekiln Cottages
Spring
Park Lodge
Oak
Clare Towers
New Barn
Wareham Gate
Bowling Green Wood
Park Wood
Tennis Court
Manor House
EAST LULWORTH
RC chapel
Lulworth Castle (remains of)
LULWORTH PARK
Lulworth Park Camp
The Belt
Vic
Arishing
Sea Scouts Hall
School
White Gate Lodge
Firing Point
Firing Point
Broom's Plantation
Old Marl Plantation
Monastery Lane
Old Limekiln
Bindon Range

MELBURY PARK, MELBURY SAMPFORD

DORSET

National Grid reference : 31/5605

Visited : 27 June 1975

Owners/Managers : Strangeways. Agents are Drivers, Jonas, 18 Pall Mall, London, SW1.

Local contact : W.H. Trevett, Esq., Head Forseer, Swiss Cottage, The Common, Evershot, Dorchester.

Melbury Park covers about 400 ha of which much is replanted woodland. There are also areas of arable and re-seeded pasture. Two areas within the park apparently retain something of the former appearance of the old park. These are the present deer park in the south western quarter (about 130 ha), and an area in the north east of about 60 ha. It was only possible to visit the deer park area; thus the rest of the park, including the north eastern area which Francis Rose reports as being comparable to the deer park, was not seen.

Deer Park

The deer park is enclosed by a high deer fence, in places by a wall, and on the northern side by what appears to be an old ha-ha. A mixed herd of about 350, red, fallow and sika deer is kept. The deer park lies on a ridge with steep slopes to the west and east and with streams running north and north-east. There are three blocks of woodland, two of 150 year old oak on the eastern side of the Stutcombe Bottom stream, and a hanging beech wood of a similar age on the extreme south-western slope. The remainder of the area is open grassland and bracken with scattered groups and single trees.

The principal trees of the deer park are oak and beech and there are some very large specimens of oak (mainly Q. robur) and beech. Some of the oak exceed 4 m girth and are probably about 400 years old (from ring counts). Most of these oldest trees are pollards or at least of non-woodland origin, with broad spreading crowns. Maiden, and a few pollard oaks (both species) of between 100 and 250 years old are widely scattered being the commonest tree in the open parkland. There are few oaks of less than 100 years. Beech is also scattered, but most plentiful on the ridge at the southern end. The age range is from 100 years to over 250 years and there are both maidens and pollards.

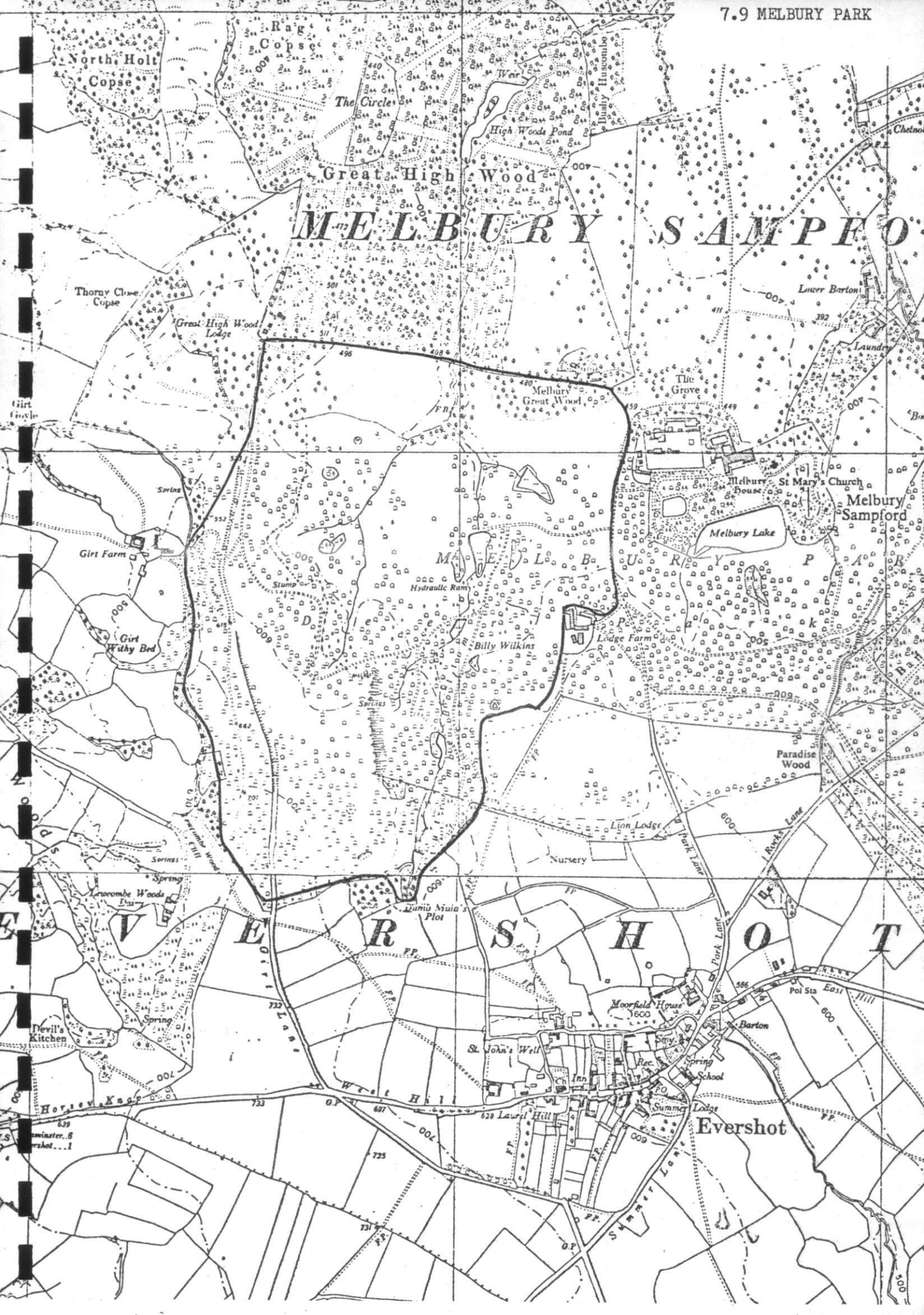
Sweet chestnut and sycamore of between 150 and 250 years are scattered among

the oak and beech, and there are also a few horse chestnut and lime. A small group of ash grows on the western side, and alder is common in Stutcombe Bottom, where there are some old specimens. The drive up Stutcombe Bottom was obviously planted with various ornamental conifers and broadleaved species, several of which are now fine specimens (Melbury is quite well known for its specimen ornamental trees).

Summary

Approximately half the park is believed to be of high interest for epiphytic lichens. Only the south western quarter (the deer park) was visited. This part lies on a ridge with steep slopes and two stream valleys. There are several ancient oak and beech, areas of single oaks, and oak and beech plantations. Old sweet chestnut and sycamore are also present. The park contains several areas of oak and beech woodland and is potentially of interest for dead wood fauna.

Paul T. Harding


North Holt Copse
Rag Copse
The Circle
Wier
High Woods Pond
Great High Wood
MELBURY SAMPFO
Thorny Close Copse
Great High Wood Lodge
Lower Barton
Laundry
The Grove
Melbury Great Wood
Girt Coyle
Melbury House
St Mary's Church
Melbury Sampford
Melbury Lake
MELBURY PARK
Girt Farm
Stump
Hydraulic Ram
Girt Withy Bed
Billy Wilkins
Lodge Farm
Springs
Paradise Wood
Lion Lodge
Park Lane
Rocks Lane
Nursery
Spring
Lowcombe Woods
Dumb Nuia's Plot
EVERSHOT
Devil's Kitchen
Moorfield House
Pol Sta
East
Barton
St John's Well
Rec.
Spring
School
Inn
Summer Lodge
Horsey Knap
West Hill
Laurel Hill
Evershot
Summer Lane

TYNEHAM WOODS

DORSET

National Grid reference : 30/892801

Visited : 3 September 1975

Owners : M.O.D. Lulworth Gunnery School.

The woodland around Tyneham House can be considered as three separate areas. Area 1 - The main block lying to the south-east of Tyneham House marked on the O.S. 6" map as Tyneham Great Wood. Area 2 - The westward continuation of area 1 along the ridge. Area 3 - Various areas around Tyneham House and to the north of the Great Wood. (See map.)

Area 1

The wood lies on a north-north-west facing slope between 75 m and 120 m. The slope is steepest on the southern edge and descends in a series of slight terraces to a shallow dry valley on the northern boundary of the area. It lies on Upper and Middle Purbeck strata with Wealden Beds in the northern third of the area. The soil seems to be a uniform clay loam which was very dry and deeply cracked on the day of my visit but is clearly normally damp and poorly drained.

The wood was maintained as coppice-with-standards, but has been neglected for at least 40 years. Oak and ash standards are of between 150 and 250 years old. Ash coppice is mainly as high cut stools (70-100 cm), some being about 4 m in girth (at 25-50 cm). Hazel and field maple are noticeably smaller and cut near ground level. Much of the hazel is of rather poor growth. Oak, ash, beech (from a few older trees), hazel and holly are regenerating freely to form an understorey with the overgrown coppice.

Sycamore occurs scattered through the area, mainly on the steep southern slope, occurring as standards, coppice and young saplings. Beech, elm, horse chestnut and pine also occur scattered through the wood.

The ground flora does not seem rich but includes Carex sylvatica, C. pendula and C. remota, Milium effusum, Allium ursinum and Primula vulgaris all of which are typically found in long established woodland. Ruscus aculeatus occurs on the edge of this area but as it is in association with bamboo and other exotica it can safely be counted as a planted species.

The epiphyte flora is obviously rich with many species of lichen and moss, and some ferns. It would be interesting to know how many species of lichen are limited to the sycamores and therefore perhaps artificially increase the interest of this area.

The steep slope on the southern part of this area has slight longitudinal terraces which may be natural. However, the point could be investigated further. There is little evidence of any surrounding bank and ditch system around the wood. Several semi-circular flat areas are scattered along the steep slope. These are probably the site of old charcoal hearths.

Area 2

This is probably an area of mixed hardwood plantation of about 200 years old. The principal species are beech/oak/sycamore with some sweet chestnut and holm oak. Many of the original plantation trees have died or been felled and sycamore has been planted and/or is regenerating in the gaps. The ground flora is less rich than in Area 1. There are some old quarries into the Middle Purbeck strata at the western end. A couple of probable charcoal hearths are present in the eastern part.

Area 3

The former ornamental walks of Tyneham House. These date from the mid 18th century and consist of lines and groups of oak/beech/sycamore and lime with some other species scattered about. The oldest trees in Tyneham Woods occur here. The ground flora on the eastern side of Tyneham House is very similar to that in Area 1, but poorer on the western side.

Dead Wood

Dead wood in the form of fallen branches and decayed coppice stools is quite plentiful. Many branches have been knocked down by shells. Hollow or dead standing trees are very scarce, and few trees are suffuciently overmature to be of great importance for dead wood fauna.

Age of the Woodland

Tyneham Woods are notable for the rich epiphytic lichen flora recorded by Francis Rose. He equated this richness with the woods being ancient, probably primary. Although species such as the Carex species listed can be considered to be indicators of ancient woodland, the ground flora generally is not rich. There is a complete absence of boundary earthworks, but there are slight signs of contour terraces in the southern half of the wood.

Tyneham Woods are situated in an enclosed valley open only to the sea. It is probable that the lichen flora is rich because of the geographical situation of the wood and is perhaps more comparable with coastal woodlands further west in Britain. There can be little doubt that the woodland in Tyneham Gwyle is

ancient, probably primary, but in my opinion Tyneham Woods, even Area 1, are possibly ancient secondary woodland, albeit adjacent to the Tyneham Gwyle woodland.

Management

The woods have been neglected since the M.O.D. took over the area, but natural processes of decay and regeneration have taken place in that time. Many of the oaks etc. are mature or starting to become overmature and therefore potentially dangerous. Many of the larger trees have been marked for felling prior (I was told by a Range Warden) to the area being opened up to the public. If this is so, it is probable that whatever interest there may be for dead wood fauna will be seriously diminished; likewise the lichen interest.

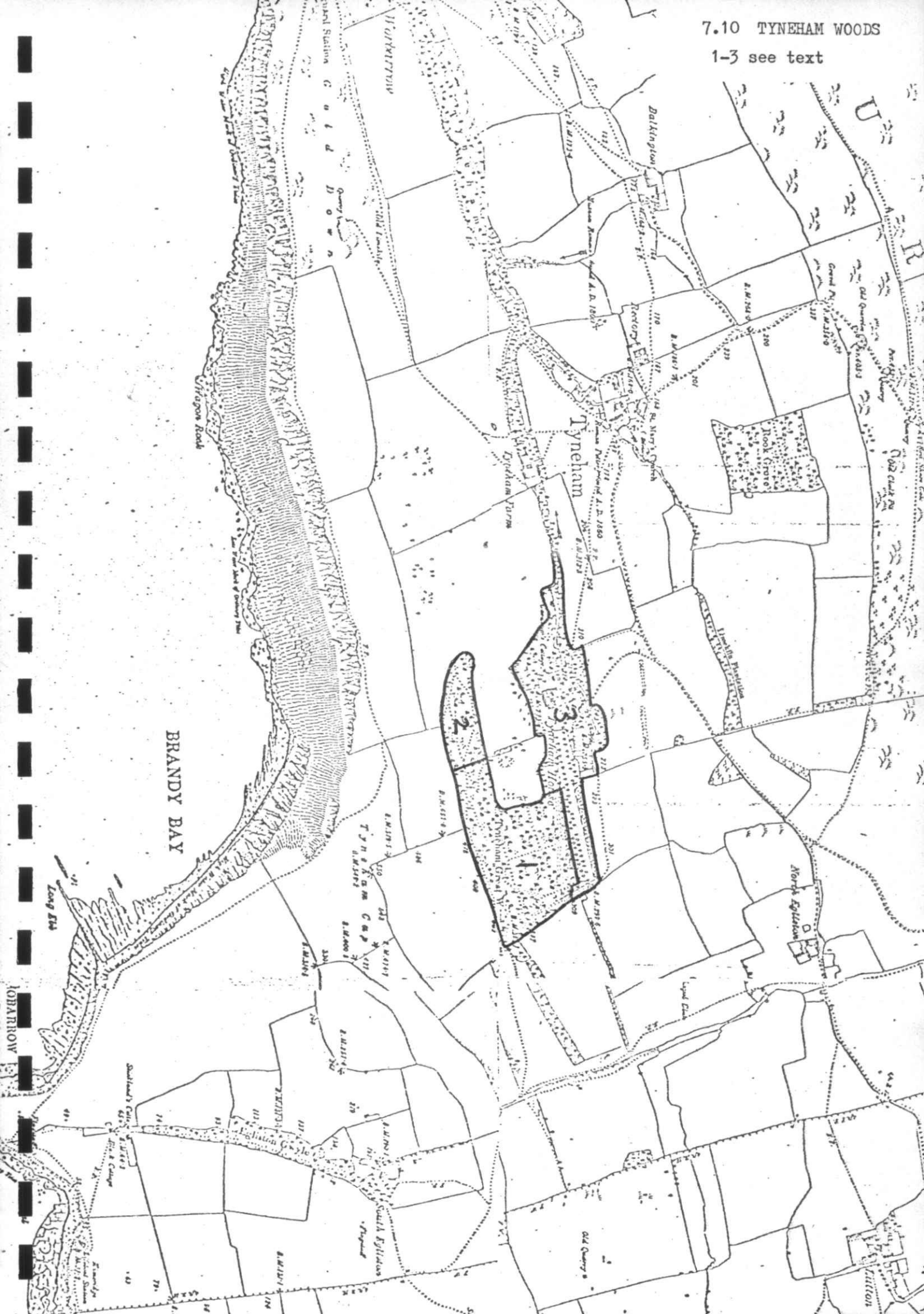
Summary

Tyneham Woods are possibly not primary but are ancient secondary woodland adjacent to probably primary woodland in Tyneham Gwyle. The woods have been neglected for 40 years and there is a good range of dead wood, mostly of smaller sizes, but few large trees of particular interest. Many of the older generation of trees are scheduled for felling which will certainly decrease any special interest there is at the site.

Paul T. Harding

7.10 TYNEHAM WOODS

1-3 see text



THE INVERTEBRATE FAUNA OF THE MATURE TIMBER HABITAT

SURVEY OF AREAS

8. West Midlands (England) Region

The following areas have been visited as part of a national survey commissioned by N.C.C. from I.T.E. The background and sources of this survey are outlined in the contract report of March 1976. Some areas were reported on in detail. These reports are included herewith in numerical order according to the following list. The remaining areas have, for various reasons, not warranted detailed reports. Summary descriptions of them have been made and included in either of the contract reports (March 1976 or March 1977) where the descriptions appear in the numbered "Area Descriptions" section.

All visits were made by P.T. Harding, almost invariably with the prior permission of the owner or his agents (except in the case of public access areas). All opinions expressed are related to the conservation value and potential of a given area for the invertebrates of mature and overmature trees, dead wood and associated biotopes.

Area, County	Date visited	Report number/ Area description
Pettypool Wood, Delamere, Cheshire	April 1976	1977-20
Bretton Clough, Derbyshire	May 1976	1977-21
Chatsworth Park, Derbyshire	May 1976	8.1/1977-22
Padley Woods, Derbyshire	May 1976	1977-23
Cotswold Beechwoods, Gloucestershire	August 1976	8.2/1977-24
Forest of Dean, Gloucester	May 1976	8.3/1977-25
Highmeadow Woods, Gloucestershire	May 1976	1977-26
Brampton Bryan Park, Hereford and Worcester	September 1975	8.4/1976-39
Dymock Wood, Hereford & Worcester	May 1976	1977-27
Eastnor Park, Hereford and Worcester	October 1977	8.5
Holme Lacy Park, Hereford and Worcester	May 1976	8.6/1977-28
Lea Bailey Inclosures, Hereford and Worcester	May 1976	1977-29
Moccas Deer Park, Hereford and Worcester	September 1975 et seq.	1977 Appendix II
Pipers Hill Common, Hereford and Worcester	April 1976	1977-30

Area, County	Date visited	Report number/ Area description
Upper Olchon Valley, Hereford and Worcester	September 1975	1976-41
Wyre Forest, Hereford and Worcester/Salop	July 1976	8.7/1977-31
The Hollies, Stiperstones, Salop	September 1975	1976-42
Brockton Coppice, Cannock Chase, Staffordshire	August 1975	1976-44
Churnet Valley Woods, Staffordshire	May 1976	1977-32
Packington Park, West Midlands	June 1976	8.8/1977-33

CHATSWORTH PARK

DERBYSHIRE

National Grid reference : 43/2570

Visited : 11 May 1976

Owner : Duke of Devonshire

Agent : D.R. Penrose, Estate Office, Edensor, Bakewell, Derbyshire.

Chatsworth Park lies on Millstone Grit overlain by neutral/acid loamy downwash soils with boulders and fine gravels. The hill on the eastern side is steep, rising to over 230 m O.D. within the woods, with rocky outcrops of Grit in places, especially in the southern part, and at Dobb Edge.

The Old Park

This lies to the south of Chatsworth House, and is bounded on the eastern side by the River Derwent, and elsewhere by a wall and a ha-ha. Cattle, sheep, red and fallow deer were grazing in this area. Much of the Old Park is open grassland with scattered groups of 100-150 year old oak and elm maidens and individual ancient pollards. The eastern edge, rising up the hill, and the valley along the southern edge are poorly drained, with some dense bracken beds, small flushes with Juncus and, in the upper valley, areas of large boulder "clitter".

This eastern and southern area contains the oldest oaks (Q. robur) and is the area referred to by Hawksworth as the "Beeley Lodge Oaks". Many of the oaks are dead or senescent, with plenty of hollow specimens. Very difficult to age, other than to say that they must exceed 300 years old. The agent reports that they are believed to be over 600 years old. Few reach a very large girth, but many of the pollards exceed 3 m girth. Some oaks have probably not been pollarded. Fallen dead wood is plentiful. There is a scatter of young birch, alders and a few planted larch of about 15 years. Individually fenced oaks of 10-25 years are scattered through much of the valley area of ancient oaks.

There is a fenced beech/sycamore plantation in the Old Park, and an unfenced larch/sycamore plantation on rising ground on the eastern edge.

The Woodlands

The woodlands of the west facing hillside east of the park contain some fine maiden oaks of 100-200 years and some older oaks as well as beech, holly, yew and many other species, mainly exotics. The older oaks are mainly in the south on the rocky slopes above the Old Park.

The remaining parkland

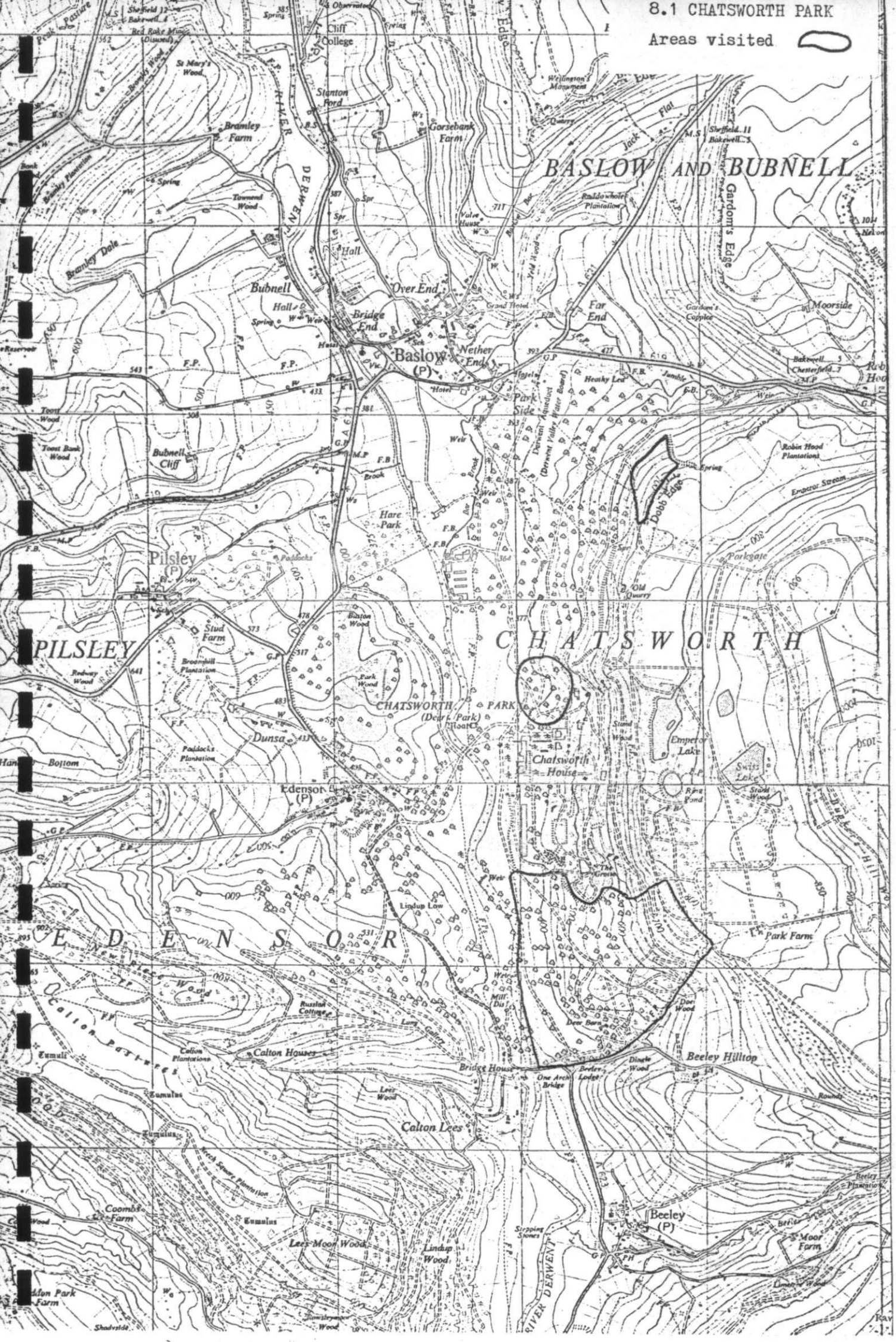
The parkland west of the Derwent is very open, with few trees, although some are probably over 250 years old.

The park north of Chatsworth House is more open than the Old Park, but does contain a good scatter of ancient oaks, especially in a small area just north of the house. There is also an interesting area of stunted oaks, probably of coppice origin, growing on Grit "clitter" below Dobb Edge. This is structurally similar to some oak woods in Wales and Devon, although it is grazed through and has a poor ground flora.

Summary

Chatsworth Park contains several areas of high potential importance for dead wood fauna: the Old Park, especially the upper slopes, and valley to the south, the wooded ridge on the eastern side, and areas in the northern park, just north of the house, and below Dobb Edge. Oak is the only species of importance, although there are a few overmature beech and holly. Soils are mainly acid with much bracken in the areas of oldest oaks. Dead wood is plentiful as standing dead trees, hollow trees, dead branches and fallen dead wood. The Old Park contains oaks of 100-150 years and 10-25 years adjacent to the ancient trees which must exceed 300 years. The Old Park is not open to the public and is grazed by stock and deer.

Paul T. Harding


8.1 CHATSWORTH PARK
Areas visited
BASLOW AND BUBNELL
CHATSWORTH
PILSLEY
EDENSOR
Baslow (P)
Bubnell
Over End
Nether End
Bridge End
Far End
Park Side
Moorside
Gorsebank Farm
Bramley Farm
Stanton Ford
Hall
Bubnell Hall
Bubnell Cliff
Pilsley (P)
Hare Park
Dobb Edge
Parkgate
Robin Hood Plantation
Emperor Stream
Emperor Lake
Swiss Lake
Chatsworth House
CHATSWORTH PARK (Deer Park)
Park Wood
Stand Wood
Dunsa
Paddocks Plantation
Broomhill Plantation
Redway Wood
Stud Farm
Buston Wood
Edenson (P)
Lindup Low
Park Farm
Deer Wood
Dingle Wood
Beeley Hilltop
Beeley (P)
Moor Farm
Beeley Plantation
Calton Houses
Calton Lees
Calton Pastures
Tumuli
Lees Wood
Lees Moor Wood
Lindup Wood
Coombs Farm
Calton Park Farm
Bridge House
One Arch Bridge
Beeley Lodge
Rowsley
RIVER DERWENT
Derwent Valley Water Board
Gardom's Edge
Gardom's Coppice
Paddock Plantation
Toast Bank Wood
Toon Wood
Townend Wood
Bramley Dale
Bramley Plantation
St Mary's Wood
Brandy Wood
Cliff College
Wellington's Monument
Jack Flat
Quarry
Old Quarry
Spring
Weir
Brook
Grand Hotel
Hotel
Vic.
Rink Pond
The Grotto
Mill Dam
Deer Barn
Russian Cottage
Lumb Gutter
Shadwell
Sheffield 12
Bakewell 4
Sheffield 11
Bakewell 5
Bakewell 5
Chesterfield 7

COTSWOLD BEECHWOODS

GLOUCESTERSHIRE

National Grid references : 32/8712 (Popes Wood)
32/8913 (Buckholt Wood)
32/8914 (Cooper's Hill)

Visited : 5 August 1976

This group of beechwoods on the Cotswolds was selected for inclusion in the Nature Conservation Review and was recommended by N.C.C. staff as containing the most mature examples of beechwoods in Gloucestershire.

Popes Wood

This also includes an area called Buckholt Wood distinct from that described in the following section. It lies on a ridge with the boundary between Cranham and Upton St. Leonards parishes running along the crest. The wood is mixed broadleaved high forest with areas of coppice and some conifer/broadleaved mixed woodland. There are a few old beech of probably about 200 years, but most beech are between 100 and 150 years. Sycamore, present as mature trees, is regenerating freely in places; and there are various other exotic species in the area. The ground flora is rich but much of the area is damaged by unrestricted public access. There is very little dead wood present in this wood.

Buckholt Wood

The area due north of Cranham village. It lies on a south facing slope dissected by several stream valleys. Mainly high forest beech of about 150 years with some older broad crowned trees of up to 300 years. There is an understorey of holly and yew and some ash in the stream valleys. Although there is some decay of the older beech trees, dead wood is scarce, except as stumps and occasional fallen limbs. The ground flora is rich, especially near the stream courses.

Cooper's Hill Common

This Local Nature Reserve is an area of woodland and some grassland which has almost certainly developed on the site of some ancient quarries along the steep hill crest. The woodland is mainly overgrown beech coppice and naturally regenerated saplings, but with a few isolated, stunted but mature beech with very broad crowns. There is also some ash and elm in places. Dead wood is not plentiful although there are some fallen dead branches and dead standing coppice stems in places. The ground flora is limited in species.

Summary

The three woods visited (Popes Wood, Buckholt Wood and Cooper's Hill) contain several types of beech dominated woodland with few overmature trees and little dead wood, either standing or fallen. Buckholt Wood and probably Popes Wood are almost certainly ancient but there seems to be little evidence to suggest that either is likely to be particularly rich in dead wood fauna, although it is probable that several Diptera would be associated with the mature beech.

Paul T. Harding

8.2 COTSWOLD BEECHWOODS

Areas visited

THE FOREST OF DEAN

GLOUCESTERSHIRE

National Grid references : 32/5.0, 32/5.1, 32/6.0 and 32/6.1

Visited : 18-19 May 1976

Owners/Managers : Forestry Commission

According to Rackham (1976) the Forest of Dean was probably one of the last areas in England to be cleared of primeval forest and brought into some form of organised woodland management. A history of the forest is given by Hart (1966). It seems probable that the forest was used mainly to supply coppice wood for charcoal production, at least since the Middle Ages, although being so near the Severn, it is not surprising that it also supplied naval timber. Most of the forest is now managed by the Forestry Commission, and the areas of mature deciduous woodland are now much reduced. The following areas are probably the most important ones still under native broadleaved woodland. The forest is increasingly becoming of importance for recreation, being little more than one hour's drive (using the M5 and M50) from the West Midlands conurbation. Forest policy is now organised to accommodate the recreational requirement and it is possibly leading to a greater willingness to retain the last areas of deciduous woodland.

F.C. compartment 252 (12 ha) in Churchill Inclosure - 32/6208

Nominally oak/beech P.1857, which is high forest, with some sweet chestnut and with holly, rowan and birch as understorey. There are about 10 older oaks (so called Charles Oaks) which are probably 250+ years old. There are also 2 large beech of the same vintage. These "Charles Oaks" and the beech have fairly straight trunks with low branching which suggests development in open conditions. These trees are now overmature, with dead wood in the crowns and some recently fallen branches. There are some old stunted oaks with possibly pollard type growth along the roadside. Lop and top from thinning and general fallen dead wood is plentiful. Hawthorn is absent in this area. The "Charles Oak", a massive pollard tree, is in compartment 247.

F.C. compartment 249 (circa 9-10 ha), just north of the Rising Sun Public House - 32/630090

An area of high forest oak P.1857 and beech P.1906. Mainly rather closely grown oaks with a few beech. Some beech natural regeneration. Very little dead wood.

F.C. compartments 534/535 (45 ha), 544a (circa 6 ha) and 542/543 (49 ha), 529/530 (circa 30 ha) Russells Inclosure

The former two areas are P.1848 oak, and the latter two are P.1810 oak. The area is well thinned oak high forest with a few beech and with holly, rowan and hawthorn scattered about and even with a few mature conifers. There are very few trees older than the stated plantation age and all is very open and tidy with only a little lop and top from thinnings.

F.C. compartments 110/111 (55 ha), 112 (circa 16 ha) and 113d (circa 4 ha) The Nagshead Inclosure including the Birdbox area. 32/6008 and 32/6009

This is an impressive looking area of oak (P.1814) high forest with a few older oak, beech and sweet chestnut and some early 19th century planted conifers. There is an understorey of holly with rowan and some birch. Holly, rowan, birch, oak and locally beech are regenerating. Sweet chestnut was clearly commoner and several recently felled trees are regenerating from the stumps. It is also regenerating by seed and some areas of this young regeneration have been cut recently. There are some large overmature sweet chestnut of 3.5-4 m girth. The oldest (pre P.1814) oak and beech are typical of such trees in Dean, with low branching, spread-crowned trees which are not pollards, having clearly developed in open situations.

Worcester Walk

Buffer zone belts of old oak along the B4028 give way to mid 19th century plantation of beech and oak with a dense mixed deciduous understorey. Clearly not managed as vigorously as most areas, but still rather tidy and lacking in much dead wood or overmature trees.

Speech House

Between Cannop and the eastern edge of the forest, along the B4226, is a 200 m wide strip on either side of the road of early 19th century oak high forest and older broad crowned oaks. Much of this is used by the public for recreation, and car parks etc. are sited within some of the better areas of overmature oak. Dead wood, except in the crowns of the trees, is scarce.

Roadsides

Buffer zone belts of oak high forest mixed with other native species, of 19th century origin line most of the public and forest roads in the forest, and are around several old mine heap areas (e.g. Parkend to Coleford Road). However,

the trees are seldom as well grown as those in the main plantation areas.

Summary

Most of the woodland of Dean has been converted to conifer/mixed plantations during the 20th century, but some areas of oak and beech high forest originating in the first half of the 19th century remain. These however are actively managed, and overmature trees are very infrequent. These areas are in Worcester Walk, Churchill Inclosure, Nagshead Inclosure and Russells Inclosure. Some pre 19th century trees, probably the former standards of short rotation coppice-with-standards woodland remain at Speech House and Worcester Walk, along the roadsides in Nagshead Inclosure, and in a small area of Churchill Inclosure. Other than lop and top, dead wood is scarce in the plantations. Dean seems not to have been worked by many entomologists, but the limited recent reports tend to confirm that its fauna is poorly represented by species associated with overmature trees and large dead wood.

References

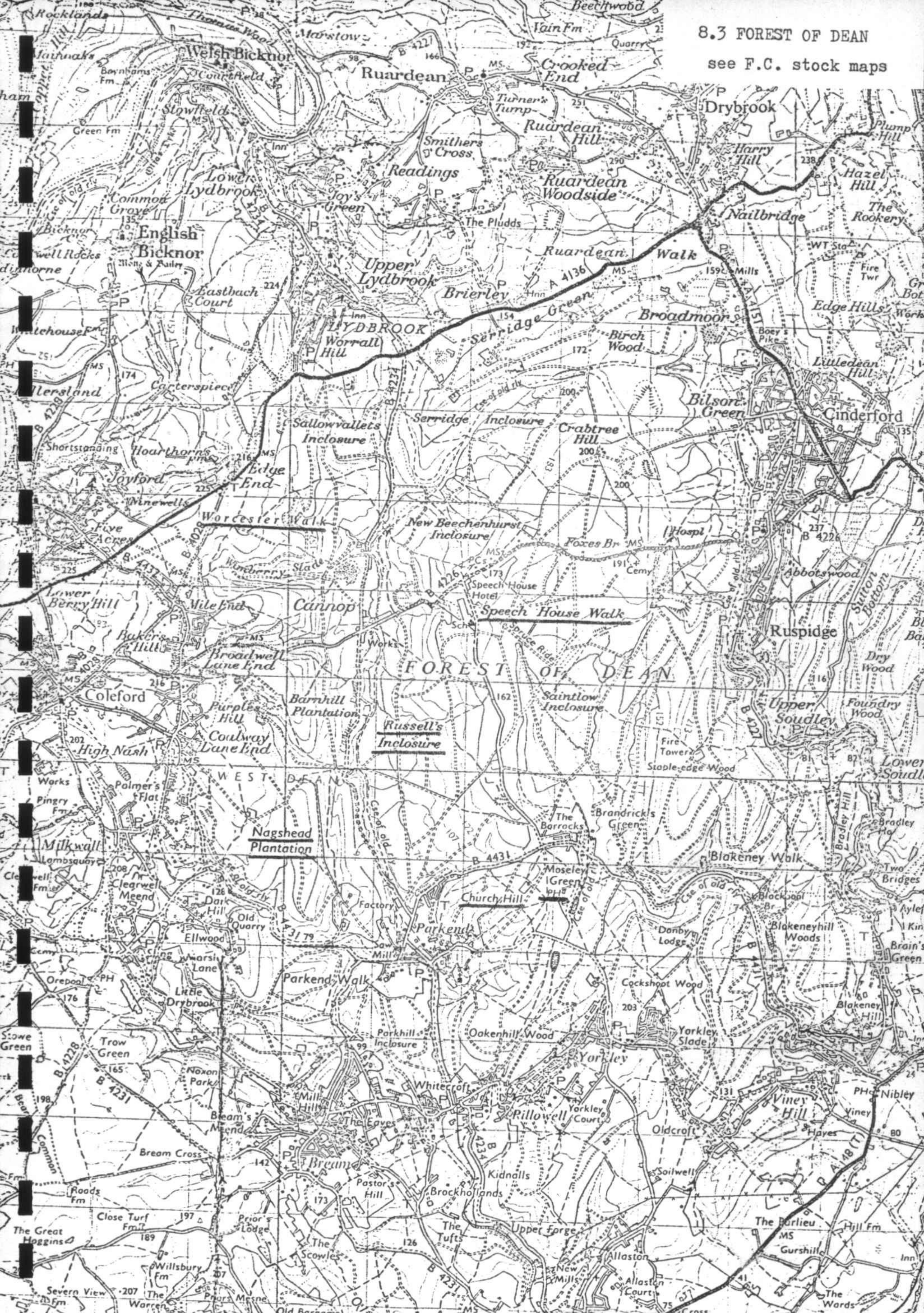
Hart, C.E. (1966). Royal Forest : a history of Dean's woods as producers of timber. Clarendon Press, Oxford.

Rackham, O. (1976). Trees and woodland in the British Landscape. Dent, London.

Paul T. Harding

8.3 FOREST OF DEAN

see F.C. stock maps



BRAMPTON BRYAN PARK

HEREFORD AND WORCESTER

National Grid reference : 32/36 72

Visited : 16 September 1975 and 21 September 1977

Owner : C.C. Harley Esq., Brampton Bryan, Bucknell, Salop.

Brampton (Bryan) Castle was built by a member of the Harley family in the 14th century after the estate came, by marriage to the heiress to the Bryan lands, to the Harleys. The castle and estate have remained in the Harley family to the present day. Mr. Harley does not know when the Park was enclosed, but he considers it to be ancient, probably originating soon after the building of the castle. It is listed as an extant deer park by Shirley (1867) and by Whitaker (1892), but Whitehead (1950) does not mention the park.

Two historical records have been found by chance, 1) In Domesday Book, ½ league of wood is listed for the parish. This was "waste in the reign of Edward and afterwards worth 5/-, now 10/-"; 2) C.J. Robinson, in his history of Herefordshire Castles (1869) states that in 1646 Sir Robert Harley was petitioning parliament for restitution of damage done to the estate during the Civil War. Brampton Bryan and Wigmore Parks were "wholly laid open and destroyed" to the value of £500.

The original park was clearly almost circular in outline, suggesting a medieval origin, but parts of the north-eastern portion have been taken into cultivation. These fields do still have isolated trees within them and some groves of trees along hedges are present, but few of these trees are old.

The western side is bounded by a stone wall and ditch which are probably on the line of an earlier ha-ha. The boundaries elsewhere are fences with little evidence of banks or ditches.

The park lies to the north of Pedwardine Hill (327 m) and contains an outlying spur of the hill in the western half. The western part of the park is on the steep slopes of the spur and the eastern half is in a valley between the spur, Pedwardine Hill and some gently rising ground on the eastern side. The present S.S.S.I. includes most of the parkland of the valley with extensions to the west and south on to higher ground.

The western part of the park - the heathy park, is mainly open unimproved heathy grassland with some areas of conifer plantations. In the steeper areas bracken is common and hawthorns are scattered among the bracken. Some groups of oaks and single trees are scattered over this part, with some good examples

of overmature/ancient oak pollards in the southern quarter. There are also some belts and groups of beech and lime, mainly stunted mature trees, on the ridge of the spur.

The eastern part of the park - the valley and the slopes down from the spur - are more densely covered with trees as well as containing a number of block plantations. Oak, beech and sweet chestnut are the dominant trees of this area. There is an excellent area of stunted oak pollards over bracken on the southern-most slope of this area, but elsewhere oaks are mainly mature or overmature maiden trees. A line of 35 venerable sweet chestnuts is a notable feature of the park. Most of these are maiden trees, but some have the form of pollards. This line of chestnuts is continued further by a line of 150-200 year old sycamore, lime and oak. The remaining trees of the lower park are mainly mature and overmature oak, beech and sweet chestnut with some conifers and exotic hardwoods. All the elms of the park (see N.C.R. description) have gone, a few felled boles were seen. The grassland is almost all improved, some areas are arable or have been ploughed in recent years.

A detailed tree survey of the whole park is in progress.

Evaluation

Although the park is indisputably rich for epiphytes, no real survey of the fauna has been done. A single visit by F.A. Hunter produced a list of about a dozen common lignophagous species. The half-day visit by Jonathan Cooter in September 1977 produced a small collection, which has still to be identified. The main difference between Moccas Deer Park and Brampton Bryan is the number of ancient hollow, pollard oaks; this generation is virtually absent at Brampton. Amounts of dead wood in the two are roughly similar, although at Brampton there are some concentrations of old boles and fallen trees around the line of sweet chestnuts. Until a comprehensive survey of the fauna has been done, it is not realistic to suggest that Brampton Bryan Park is an equal alternative to Moccas Deer Park.

Summary

Brampton Castle has been in the Harley family since the 14th century, but Mr. Harley cannot give a date for the origin of the park. The park lies on a north/south ridge rising to 270 m, with two side valleys running north-east to a flatter area near to the village. There are some notable sweet chestnuts in the southernmost valley, and some areas of ancient oak pollards, on the ridge and in the valleys. Most of the park is improved grassland, ley or arable

although there are areas of conifer plantations on some slopes. There are few young oak or sweet chestnuts, and the dead wood seems to be cleared in the accessible parts of the park. There are almost no entomological records known for the area, but it would seem to be potentially of interest. In no way can it be considered a substitute for Moccas Deer Park without detailed survey of the fauna.

References

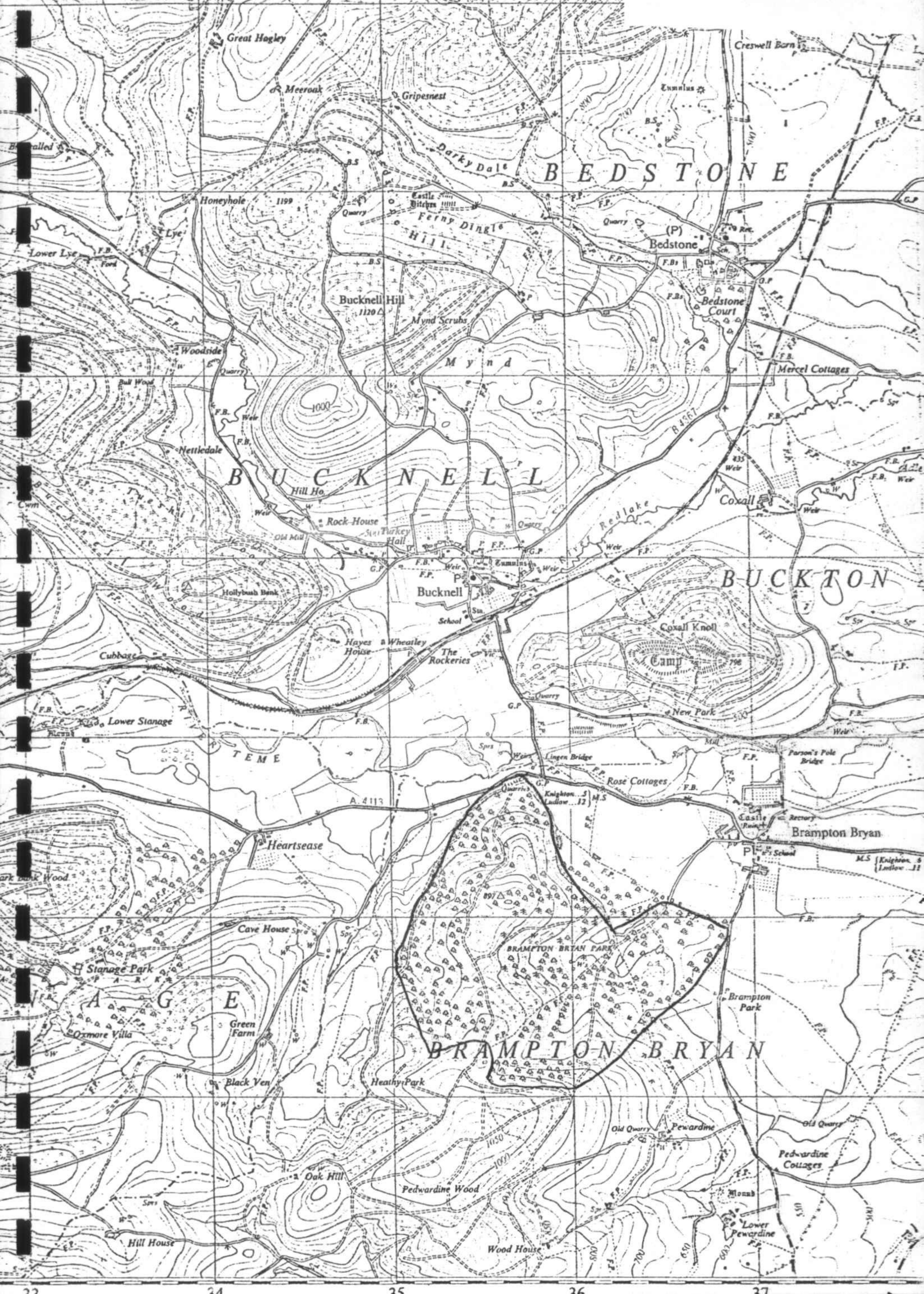
Robinson, C.J. (1869). A history of the castles of Herefordshire and their Lords. Longman, London.

Shirley, E.P. (1867). Some account of English deer parks. Murray, London.

Whitaker, J. (1892). A descriptive list of the deer parks and paddocks of England. Ballantyne Hanson, London.

Whitehead, G.K. (1950). Deer and their management in the deer parks of Great Britain and Ireland. Country Life, London.

Paul T. Harding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Great Hogley
Creswell Barn
Meeroak
Gripesnest
Tumulus
Darky Dale
BEDSTONE
Honeyhole
1199
Castle Ditches
Ferny Dingle
Quarry
Lye
Lower Lye
Ford
Bedstone
Bucknell Hill
1120
Mynd Scrubs
Bedstone Court
Woodside
Mynd
Mercel Cottages
Bull Wood
1000
B 4367
Nettledale
BUCKNELL
Hill Ho.
Coxall
Rock House
Turkey Hall
Old Mill
River Redlake
Hollybush Bank
Bucknell
BUCKTON
School
Coxall Knoll
Hayes House
Wheatley
The Rockeries
Camp
Cubbage
Lower Stanage
New Park
TEME
Lingen Bridge
Parson's Pole Bridge
Rose Cottages
Knighton 5
Ludlow 12
A. 4113
Castle
Rectory
Brampton Bryan
Heartsease
School
Knighton 6
Ludlow 11
897
Cave House
BRAMPTON BRYAN PARK
Stanage Park
PARK
AGE
Brampton Park
Oxmore Villa
Green Farm
BRAMPTON BRYAN
Black Ven
Heathy Park
Old Quarry
Pewardine
Pedwardine Cottages
1050
Oak Hill
Pedwardine Wood
Mound
Hill House
Wood House
Lower Pewardine
33
34
35
36
37

EASTNOR PARK

HEREFORD AND WORCESTER

National Grid reference : 32/74 37

Visited : 20 October 1977

Owner : Major and Mrs. Hervey-Bathurst, Eastnor Estate

This extensive park was visited briefly with Noel King (NCC Hereford and Worcester). We were accompanied by the park-keeper, Mr. Wadley, who proved to be most informative about the park and to have an intuitive knowledge of the management requirements for the conservation of parkland.

The central valley of the park is fairly open with some areas of comparatively lush grassland. There are scattered mature oaks, beeches and a few other species and a few older oaks. To the east the ground rises to a ridge with areas of more dense woodland and scrub including some good overmature oaks. On the crest of the ridge the heathy grassland gives way to extensive areas of bracken dotted with oaks and hawthorns. This area appears to be undisturbed and seems to have considerable potential interest for invertebrates associated with old trees and dead wood. This terrain seems to extend over at least as far as the Obelisk, but time prevented us from seeing all of it. This eastern part of the park could well repay further examination.

A herd of 300 red deer run on about 360 acres of the park, together with some cattle. The park is used to a limited extent for camping, military exercises and vehicle trials, but little evidence of serious damage to the trees, or grassland was seen.

Fallen dead wood is almost absent in the valley but in the remoter eastern part some dead wood was seen. Succession of oak in the park is limited to a few areas of mature oak plantation along the ridge east of the valley. There is a need for some planned planting in the valley and on the more open slopes.

The rare beetle Bibloporus minutus was recorded at "Eastnor Hill" under bark in August 1936 by A.A. Allen. Other records may be held by him. Eastnor is a locality occasionally referred to by Tomlin in his Herefordshire Coleoptera list.

Summary

Despite a very brief visit to the park, it is clear that some areas of considerable potential interest exist in the eastern part of the park. There are scattered overmature oaks with hawthorns, over bracken. Elsewhere there

are areas of mature oak woodland as well as very open oak/beech parkland over improved grassland. Bibloporus minutus has been recorded from Eastnor Hill nearby.

Appendix - Suggestions for Management

The park is already managed with a strong nature conservation bias. However, the following guides may help to perpetuate the value of the park for wildlife, particularly any special and rare insects associated with old trees and dead wood, and epiphytic lichens that may occur.

1) Some trees, especially oaks and beech, should be allowed to see out their full life-span and not be felled when mature.

2) Fallen dead wood and dead standing trees should be left undisturbed in the brackeny areas and in the woodland of the eastern ridge.

3) A new generation of trees should be started, preferably using local seed. These should be of the species already present in the park and in the ratios of the present stocking ie. with a strong bias to oak. Ideally the central valley should be planted with individually fenced trees; the ridge and eastern part could be planted with single trees, belts and groups, appropriately fenced.

4) The heathy grassland and small marshy areas together with the bracken beds add to the interest of the park giving a variety of field layer types. Any alteration of this situation would detract from the interest of the park.

Reference

Allen, A.A. (1958). Bibloporus minutus Raf. (= höglundi Palm) (Col., Pselaphidae) in Herefordshire : a definite British record. Entomologist's mon. Mag. 98, 110.

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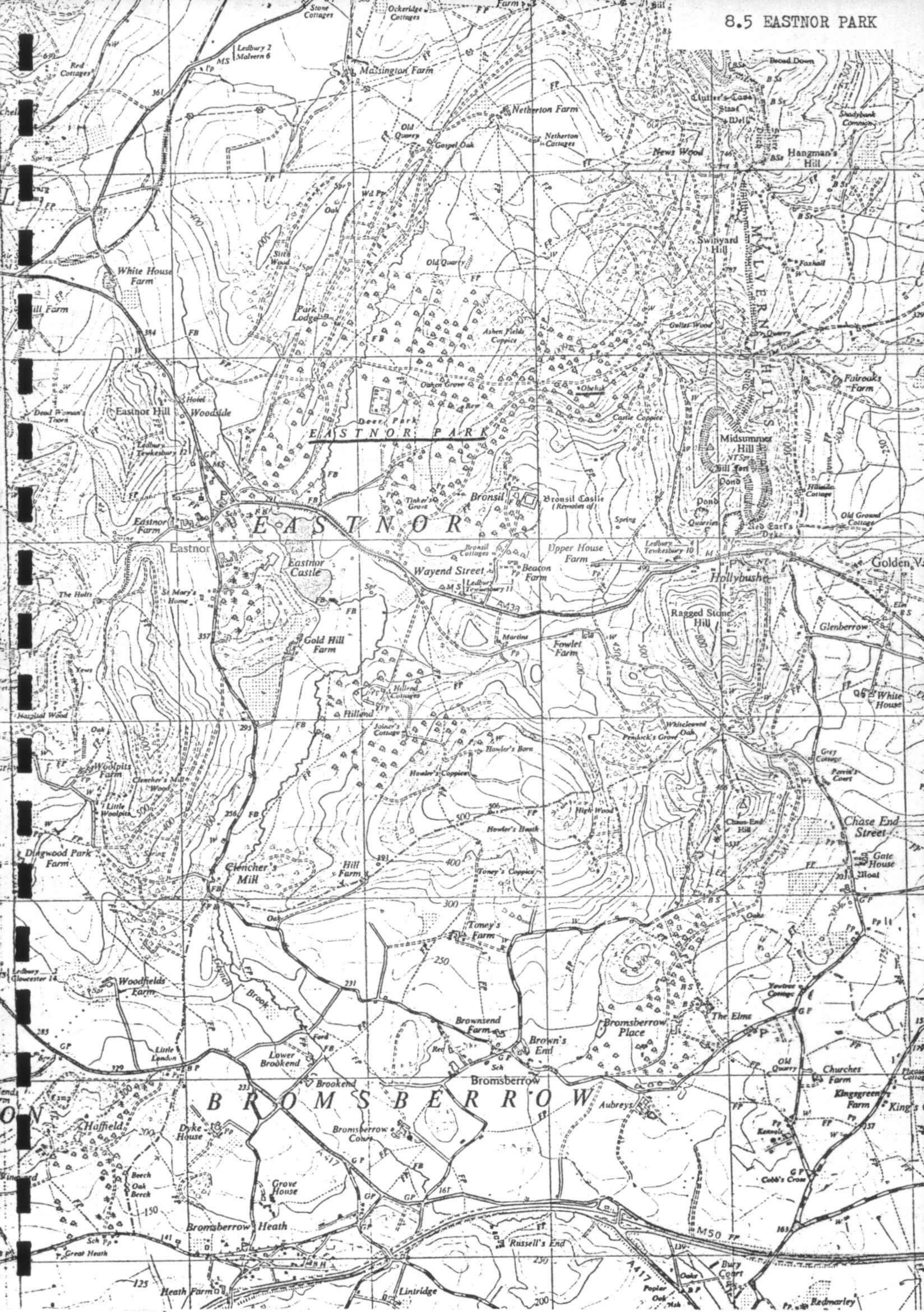
EASTNOR PARK
EASTNOR
BROMSBERROW
MALVERN HILLS
Massington Farm
Netherton Farm
Gospel Oak
News Wood
Hangman's Hill
Swinyard Hill
White House Farm
Park Lodge
Eastnor Hill
Woodside
Deer Park
Obelisk
Castle Coppice
Midsummer Hill
Bronsil
Bronsil Castle
Eastnor Farm
Eastnor
Eastnor Castle
Wayend Street
Upper House Farm
Beacon Farm
Hollybush
Golden Valley
Ragged Stone Hill
Glenberrow
Gold Hill Farm
Fowlet Farm
White House
Hillend
Whiteleaved Oak
Woolpits Farm
Little Woolpits
High Wood
Chase End Hill
Chase End Street
Dingwood Park Farm
Clencher's Mill
Hill Farm
Gate House
Toney's Farm
Woodfields Farm
Brook
Brownsend Farm
Brown's End
Bromsberrow Place
The Elms
Little London
Lower Brookend
Brookend
Bromsberrow
Aubreys
Churches Farm
Kingsgreen Farm
Haffield
Dyke House
Bromsberrow Court
Cobb's Cross
Grove House
Bromsberrow Heath
Russell's End
M50
A417
A438
Great Heath
Heath Farm
Lintridge
Bury Court
Redmarley

HOLME LACY PARK

HEREFORD AND WORCESTER

National Grid reference : 32/5534

Visited : 20 May 1976

Owners : Herefordshire County Council - School of Agriculture

This site was visited without permission, mainly by access from public footpaths.

Much of the park is now improved pasture or arable, but about 50 ancient trees are left. These are mainly oaks with a few sweet chestnut, Wellingtonia and cedar. The best areas of ancient oaks are at 32/553347 and 32/553340, on the extreme south east near the former Deer Barn, and also on the western side on the steep slope above Brick Kiln Wood. The oldest oaks are massive hollow pollards, with some dead wood in the crowns. Dead wood seems to be cleared away once it falls, but the trees are otherwise undisturbed. On the western side of the park, and less frequently elsewhere, there are about 50 younger maiden oaks of 150-200 years, and some similar aged or younger horse chestnut and sycamore. Hawthorns are plentiful as tall shrubs in fields, areas of scrub and in hedges.

Summary

The park has been reclaimed for arable and pasture, but about 50 ancient trees remain, mainly pollard oaks. A similar number of 150-200 year oaks are also present. Dead wood in the crowns and hollow trees are plentiful, but fallen dead wood appears to be removed. The ancient trees are reported to be of interest for lichens and they may still retain some interest for their invertebrates, although many are in rather exposed positions in fields.

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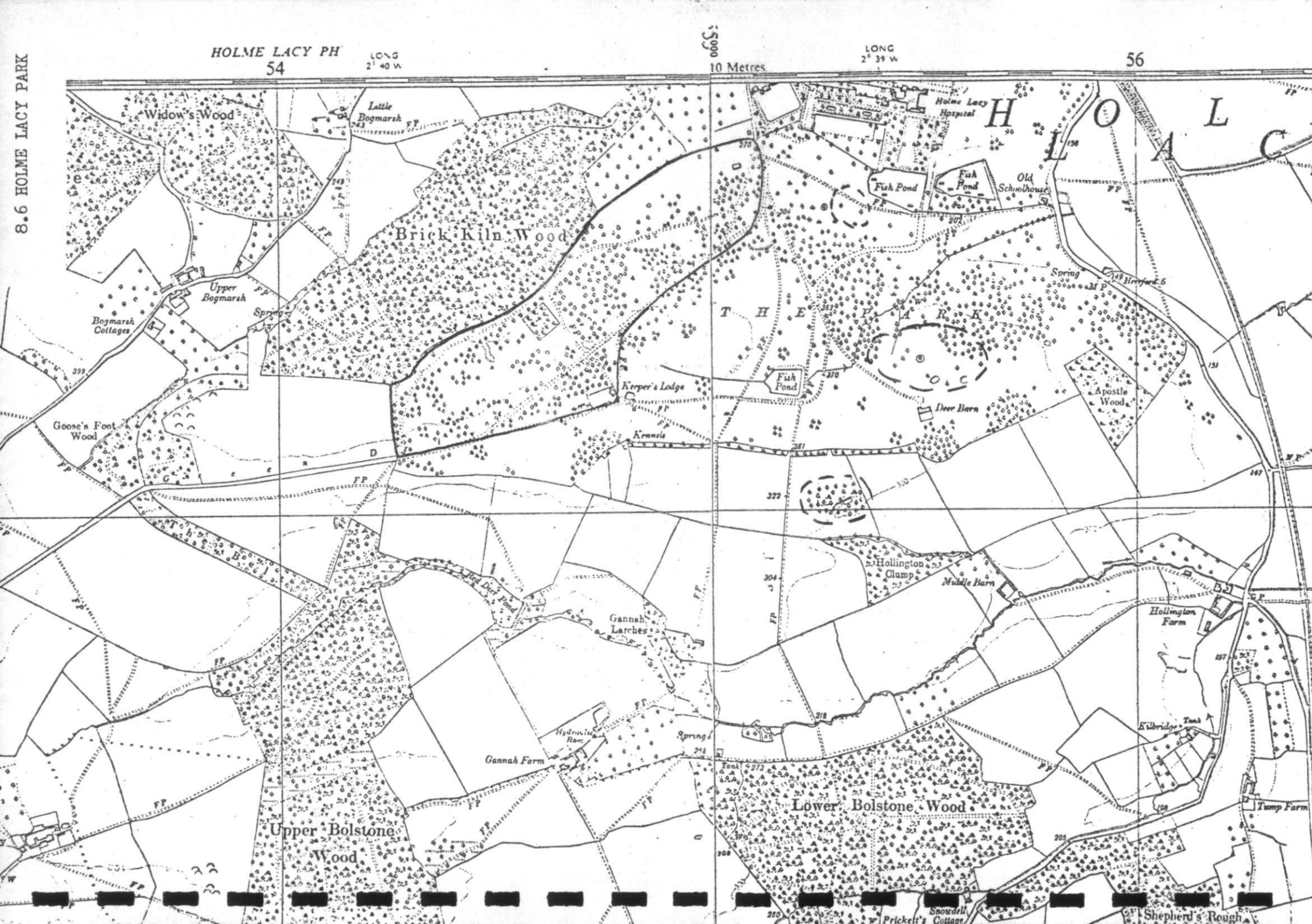
8.6 HOLME LACY PARK
HOLME LACY PH
54
LONG 2° 40 W
1:5000
10 Metres
LONG 2° 39 W
56
Widow's Wood
Little Bogmarsh
Brick Kiln Wood
Upper Bogmarsh
Spring
Bogmarsh Cottages
Goose's Foot Wood
Keeper's Lodge
Kennels
Holme Lacy Hospital
Fish Pond
Fish Pond
Old Schoolhouse
Spring
Fish Pond
Deer Barn
Apostle Wood
Hollington Clump
Middle Barn
Hollington Farm
Kilbridge
Tank
Tump Farm
Gannah Larches
Hydraulic Ram
Spring
Gannah Farm
Upper Bolstone Wood
Lower Bolstone Wood
Snowdell Cottage
Shepherd's Rough

WYRE FOREST

HEREFORD AND WORCESTER/SALOP

Visited : 28-30 July 1976

Multiple ownership.

Seckley Wood (Ravine area) 32/765786

F.C. crop maps indicate oak P.1860-1890 with a few recently planted areas.

Mainly oak high forest with localised areas of overgrown oak coppice. Probably oak coppice-with-standards replanted in the latter 19th century to high forest. Oak maidens vary between circa 75 years and over 150 years. Other species include the well known beeches, mainly maidens of a considerable age, some now well decayed. There is a very large multi-stemmed beech in Cliff Wood. Also occurring are birch, hazel, holly, gean and alder. The ground flora is typical of acid facies with much Vaccinium and Luzula although the foot of the scarp has flushed areas.

Dead wood is mainly small branches in the oaks and fallen around some of the older oaks. A few beech are hollow and one fallen beech was noted.

There is a curious abundance of natural regeneration especially of beech within the last 15 years possibly indicating a change of management, eg. withdrawal of grazing.

Dowles Brook and its tributaries

This area is partly in F.C., N.C.C. and E.F.G. ownership with many small areas in various ownerships. N.C.C. is actively negotiating for much of the area. Discussions with Mr. F. Fincher revealed that the oldest trees lie along Dowles Brook near Oak Cottage. We looked at this area and I found the oak there to be little different to that seen in the high forest areas further up Dowles Brook, in Shelf Held and Town Coppice and along Mad Brook.

There are large areas of 100-120 year old oak high forest which are doubtless of high conservation value, but lack the ancient tree element relevant to this survey. There are also extensive areas of oak dominated coppice along Dowles Brook, and in Langdon and Withybed Woods.

Eymore Wood

Much of this wood has been replanted in the last 20 years, mainly with conifers. The remaining areas of oak high forest and oak coppice in Compts 14, 15, 16, 18, 19,

20 and 25 are very similar to much of the main body of Wyre although there are a few old beech on the lower slopes of the Severn scarp. The oak areas are extensively used by the public for recreation.

Summary

Oak, the dominant tree of Wyre, of more than 150 years seem to be very rare in the area except as boundary pollards within forest clearings. A few overmature beech are present in Seckley Wood and also in Eymore Wood. The area is reported to be of high conservation value for dead wood fauna, but published records are few. Hickin (1971) in his book on Wyre Forest lists a few rare Coleoptera and Fowler (1889-1891) lists Bewdley Forest as a locality for some species associated with dead wood. As a large Royal Forest area, mainly under deciduous woodland, Wyre must be of importance of "Old Forest" insect species, but probably not those associated with overmature trees.

References

Fowler, W.W. (1887-1891). The Coleoptera of the British Isles, Vols 1-5. Reeve, London.

Hickin, N.E. (1971). The natural history of an English forest - the wild life of Wyre. Hutchinson, London.

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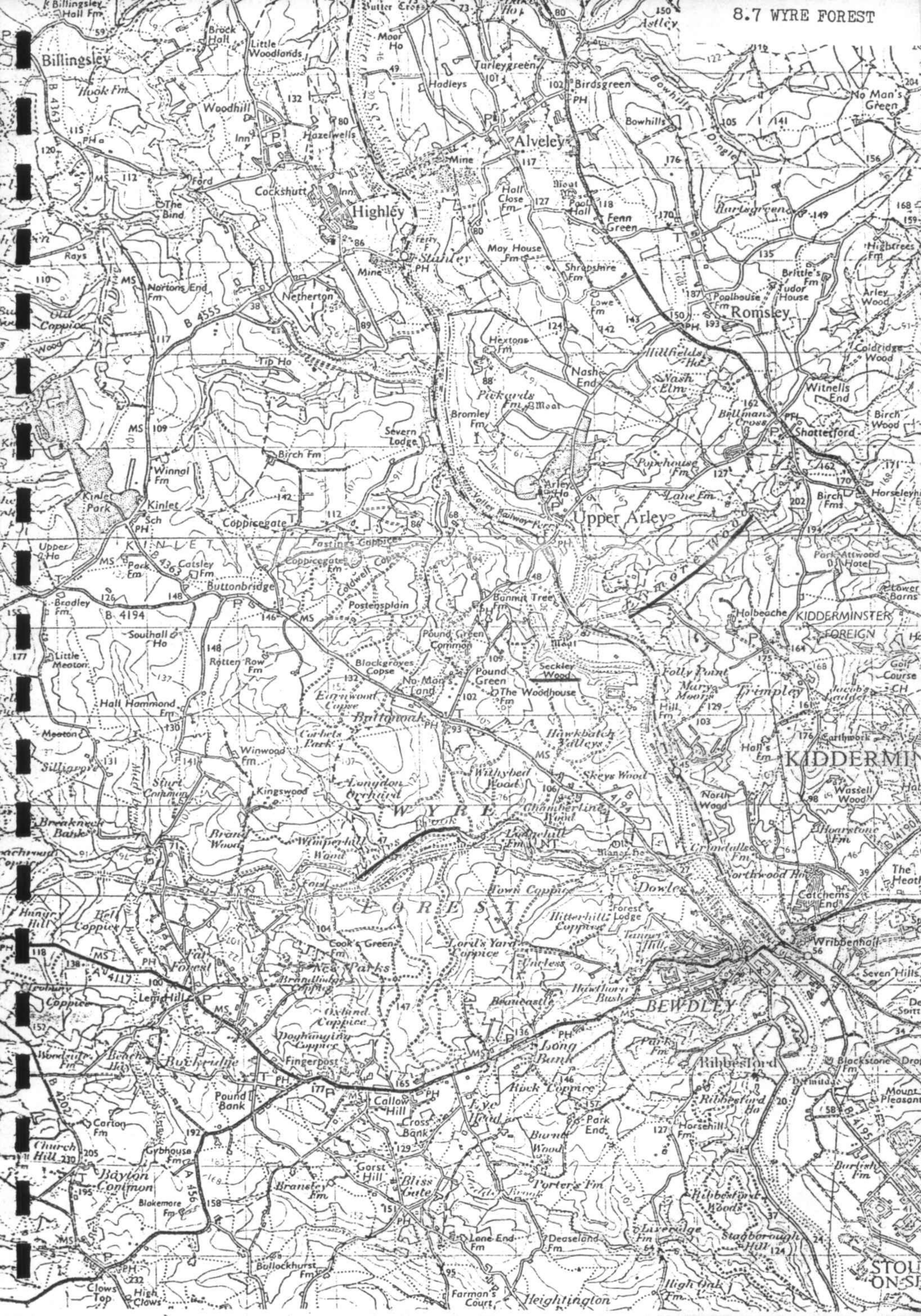

Billingsley
Billingsley Hall Fm
Brock Hall
Little Woodlands
Moor Ho
Astley
Turleygreen
Birdsgreen
Hadleys
Hook Fm
Woodhill
Hazelwells
Alveley
Bowhills
No Man's Green
Mine
Cockshutt
Highley
Hall Close Fm
Pool Hall
Fenn Green
Hurtsgreen
The Bind
Rays
Stanley
May House Fm
Shropshire Fm
Hightrees Fm
Brittle's Fm
Tudor House
Nortons End Fm
Netherton
Poolhouse
Romsley
Arley Wood
Old Coppice
Lowe Fm
B 4555
Hextons Fm
Hillfields Ho
Coldridge Wood
Tip Ho
Nash End
Nash Elm
Witnells End
Pickards Fm
Bellmans Cross
Shatterford
Birch Wood
Bromley Fm
Severn Lodge
Birch Fm
Winnal Fm
Popehouse Fm
Kinlet Park
Kinlet
Arley Ho
Lane Fm
Birch Fms
Horseleyhill
Coppicegate
Severn Valley Railway
Upper Arley
KINLET
Fastings Coppice
Upper Ho
Coppicegate Fm
Coldwell Copse
Park Attwood Hotel
Park Fm
Catsley Fm
Buttonbridge
Bradley Fm
B 4194
Postensplain
Bunnut Tree Fm
Holbeache
KIDDERMINSTER FOREIGN
Lower Barns
Southall Ho
Pound Green Common
Moat
Little Meaton
Rotten Row Fm
Blockgroves Copse
Pound Green
Seckley Wood
Folly Point
Mary Moors
Trimpley
Golf Course
No Man's Land
The Woodhouse Fm
Hall Hammond Fm
Earnwood Copse
Buttonoak
Hawkbatch Valleys
Hill Fm
Jacob's Ladder
Earthwork
Meaton
Corbets Park
Hall's Fm
KIDDERMIN
Winwood Fm
Sillgrove
Sturt Common
Kingswood
Longdon Orchard
Withybed Wood
Skeys Wood
North Wood
Wassell Wood
WYRE
Chamberline Wood
Breakneck Bank
Brand Wood
Wimperhill Wood
Lodgehill Fm
Old Manor Ho
Grindalls Fm
Hoarstone Fm
Northwood Fm
The Heath
Town Coppice
Dowles
Catchems End
Hungry Hill
Bell Coppice
FOREST
Hitterhill Coppice
Forest Lodge
Tanner's Hill
Wribbenhall
Cook's Green Fm
Lord's Yard Coppice
Far Forest
New Parks
Uncless
Seven Hills
A 4117
Lem Hill
Brandlodge Coppice
Hawthorn Bush
Oxlands Coppice
Broncastle
BEWDLEY
Doghanging Coppice
Long Bank
Park Fm
Ribbesford
Blackstone
Bucknell
Beach Hay
Fingerpost
Rock Coppice
Pound Bank
Callow Hill
Eye Head
Ribbesford Ho
Mount Pleasant
Carton Fm
Cross Bank
Park End
Burnt Wood
Horsehill Fm
Church Hill
Gybhouse Fm
Bayton Common
Gorst Hill
Bliss Gate
Bransley Fm
Porter's Fm
Burlish Fm
Blakemore Fm
Ribbesford Woods
Lane End Fm
Deaseland Fm
Liveridge Fm
Stagborough Hill
Bullockhurst Fm
Clows Top
High Clows
Farman's Court
Heightington
High Oak Fm
STOU ON-SE

PACKINGTON PARK

WEST MIDLANDS

National Grid reference : 42/2284

Visited : 3 June 2284

Owner : Lord Aylesford, Packington Hall, Meriden.

Packington Park lies between Coventry and the Birmingham conurbation on the east and west sides, with the M6 and A45 running close by on the north and south sides. In such a location it is surprising that so much "wild" land has not been developed, although parts of the park and its environs are now being opened up for recreational use based on a Golf and Country Club.

History

The park was emparked in 1777 from the Forest of Arden. Arden was not a Royal Forest, but retained a high proportion of woodland into the 16th century. Early 17th century maps show a deer park in the approximate location of Packington Park. The Old Hall was demolished during the Commonwealth and Packington Hall was built in 1670; presumably the estate of the hall took in the older deer park. The 1st Edition Ordnance Survey maps show the park considerably larger than it is today.

Part of the park was requisitioned for the Allied Forces during the 1939-45 war and a complex of buildings was developed in the north-eastern quarter. Some of these buildings or their bases remain. Extensive gravel workings began in 1952 in the northern part of the park. All extraction work has now ceased and the pits are now water-filled and have been landscaped to some extent.

Topography and Soils

The park is on undulating ground with a flat plain running east from the hall, and with a stream valley, partly dammed, which runs south of the hall to join the River Blythe on the western edge of the park.

The soils are mainly light and sandy, of glacial origin. In the deer park the light mineral soils are overlain by a deep layer of humus. The underlying strata are Triassic (Keuper) Marls.

Present Land Use

The original park is now under three distinctly different forms of management.

1. Arable. There is an extensive area of arable land mainly on the west and south sides of the park. There are still some scattered old trees, mainly oaks in this area.

2. Forest of Arden Golf and Country Club. This newly launched company is chaired by Lord Aylesford. It is based on the northern part of the park utilising the flooded gravel workings for fishing and other areas disturbed by extraction and by the military for a 9 hole golf course, golf range and for a shooting ground. A club house/restaurant/bar complex overlooks the main coarse fishing area. A second 9 hole golf course is in the process of construction, this takes in some of the eastern end of the deer park. There are other areas for fishing within the park which are open to fishermen licensed by the Country Club.

3. Deer Park. This is not open to the public except for access to the fishing waters and to the church. Much of the area is open unimproved bracken heath, pasture and oak woodland in open canopy with old pollards anf young maidens. There are some areas of improved pasture near the hall. At least 100 Menil Fallow deer and a few sheep were seen.

The Oaks of the Deer Park

The striking feature of Packington is the number of ancient pollard oaks together with younger, but stag-headed maidens and more vigorous oak maidens of 50-75 years and 100-150 years. These are best seen between the park pool and the East Gate, and in the north-western corner of the present deer park, on a slight hill.

Dead and dying trees are plentiful and many hollow pollards remain, some containing large accumulations of leaf-litter and wood mould. Fallen trees and limbs are present, and much seems to be left where it falls if it is not obstructing tracks or obviously unsightly.

There is a lack of young oaks (less than 50 years) and no attempt seems to be made to foster a new generation in the deer park. However, I believe that the second 9 hole golf course will go through part of the eastern part of the park and here, although some old trees will be removed, it is to be hoped that young oaks or acorns of local provenance will be planted.

The stag headed maiden oaks seem to be dying back at about 300 years old. This die-back may be due to a lowered water table or to aerial pollution.

Dead Wood Fauna

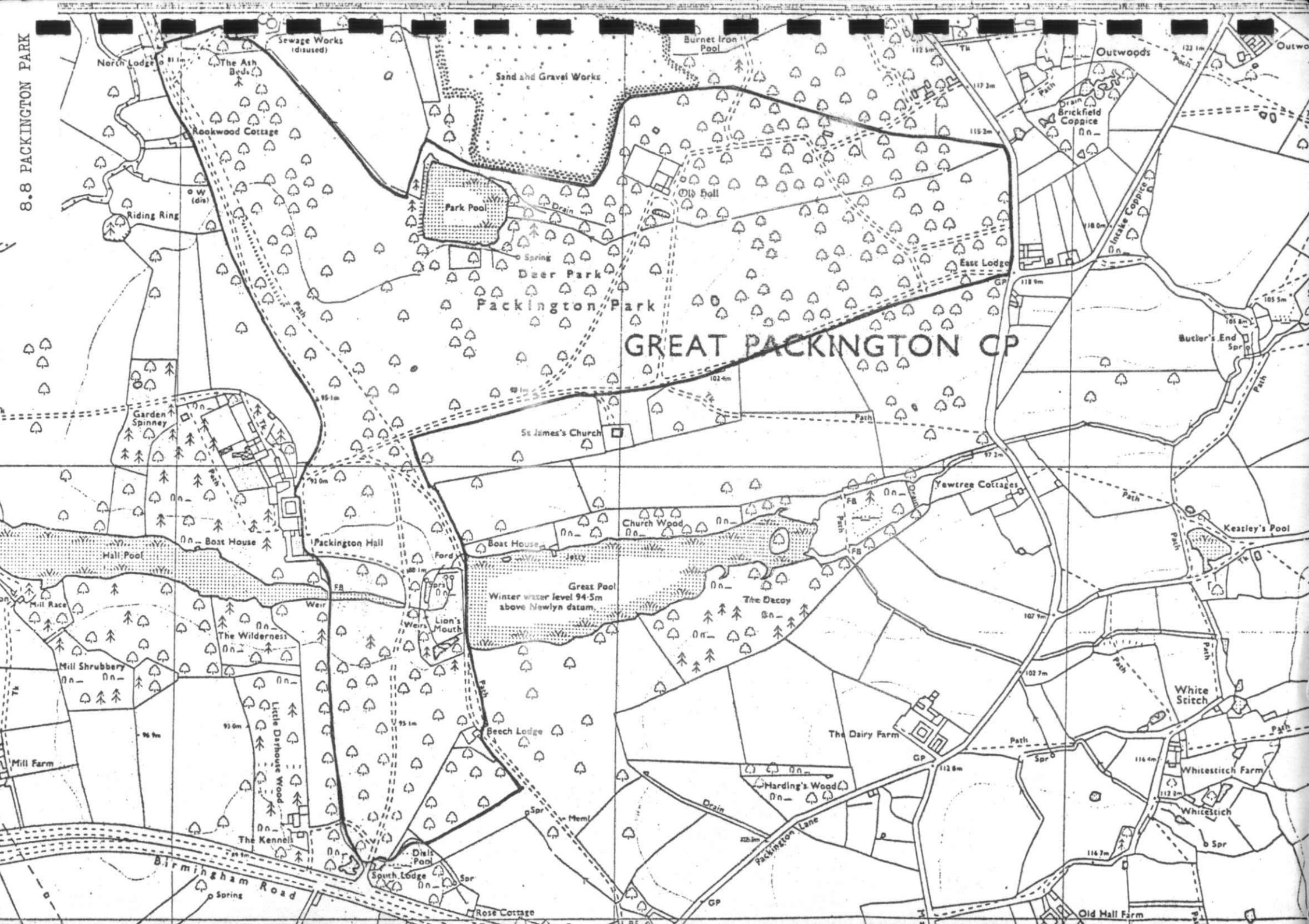
No samples of fauna were taken, but all the evidence, from flight holes in

dead wood and from the abundance of fallen and standing dead wood, indicate that Packington is potentially a very interesting area. Oak is the dominant tree with hawthorn being present around small areas of woodland, and alder in wet hollows and especially in Church Wood. There are a few senile beech in the park.

Summary

Packington Park is placed between two large centres of population, Coventry and Birmingham, and therefore there is considerable pressure for access by the public. Part of the park is now open for fishing, golf and shooting but most of the better remnants of the old deer park are not open to the public. Ancient pollard oaks are plentiful and there is a good range of younger trees. The best areas of open canopy oak woodland over bracken/grass heath are east of the park pool and on a rise in the north west of the park. It is apparently unknown entomologically, but as a relic of the Forest of Arden could be of considerable interest. The epiphyte flora is unlikely to be rich owing to the aerial pollution which may also be causing die back on the older maiden oaks.

Paul T. Harding


8.8 PACKINGTON PARK
GREAT PACKINGTON CP
Packington Park
Deer Park
Park Pool
Old Hall
Sand and Gravel Works
Sewage Works (disused)
Burnet Iron Pool
North Lodge
The Ash Beds
Rookwood Cottage
Riding Ring
Spring
Drain
East Lodge
Outwoods
Brickfield Coppice
Intake Coppice
Butler's End
Garden Spinney
St James's Church
Yewtree Cottages
Keasley's Pool
Church Wood
Boat House
Jetty
Packington Hall
Hall Pool
Mill Race
Weir
Ford
Weirs
Lion's Mouth
Great Pool
Winter water level 94·5m above Newlyn datum
The Decoy
The Wilderness
Mill Shrubbery
Little Darhouse Wood
Beech Lodge
The Dairy Farm
White Stitch
Whitestitch Farm
Whitestitch
Harding's Wood
Packington Lane
Mill Farm
The Kennels
Birmingham Road
South Lodge
Dials Pool
Rose Cottage
Old Hall Farm
Path
FB
GP
Spr
Tk