

Boquete, Cerro Pate de Macho, upper NE slopes and along soggy ridge of Continental Divide. 8°46'N, 82°25'W. 1900–2000 m. 19 June 1987, T. Croat 66448 (Holotype: MO).

A *P. barrigae* L.B. Smith et *P. lindae* Betancur similis et affinis sed bracteis florigeris, sepalis petalisque minoribus differt.

Plant incompletely known, flowering to 1.5 m tall (!Croat). **Leaves** (only two partial ones known) to at least 1.2 m long. **Leaf sheaths** unknown but judging from the upper scape bracts probably elliptic, thin-coriaceous, pale brown lepidote. **Leaf blades** pseudopetiolate; the pseudopetiole 18–22 cm × 15–25 mm, channeled, nerved, entire, pale brown lepidote; the blade narrowly elliptic, attenuate at both ends, 3–5 cm wide, channeled, entire, pale brown lepidote especially abaxially, green. **Scape** erect, 75 cm (!Croat) × 5–6 mm, pale brown lepidote, drying very dark. **Scape bracts** erect, the uppermost very laxly imbricate, narrowly elliptic, attenuate, entire, green. **Inflorescence** erect, simple, subglobose, 11 × 9 cm. **Floral bracts** imbricate, slightly spreading with somewhat recurving apices, broadly elliptic to ovate, acute to attenuate, 25–50 × 20–25 mm, very thin-coriaceous to membranaceous, nerved, entire, sparsely pale brown lepidote to glabrous, red (!Croat). **Flowers** with a stout 2 mm long pedicel, erect to slightly spreading. **Sepals** free, lanceolate, acute, 28–30 × 6–7 mm, the adaxial pair carinate, thin-coriaceous, nerved, sparsely pale brown lepidote. **Corolla** somewhat zygomorphic. **Petals**

ligulate, broadly acute, 45–52 mm long, arcuate, unappendaged, white (!Croat). **Stamens** and **style** included. **Ovary** more than ¾ superior.

Pitcairnia croatii is similar to the Colombian *P. barrigae* and *P. lindae*. From the former it can be separated by its entire leaves (vs. basally serrate), shorter petals (45–52 mm vs 80 mm long), shorter sepals (28–30 mm vs 34 mm long), and shorter floral bracts (25–50, mm vs 55 mm long). From the newly described *P. lindae*, *P. croatii* can be distinguished by its somewhat recurving (vs strictly erect), shorter floral bracts (25–50 mm vs 70–80 mm long), shorter petals (45–52 mm vs 60–70 mm long), and shorter sepals (28–30 mm vs 38–43 mm long).

In the key presented for the genus *Pitcairnia* in Flora Mesoamericana (Utley in Davidse et al. 1994), *Pitcairnia croatii* would come out in the vicinity of *P. guzmanoides* L.B. Smith or *P. carioana* Wittmack but can be easily distinguished by bract and flower size.

ACKNOWLEDGMENTS

Thanks are extended to the collectors for providing the specimens; and to Stig Dalström for the illustrations.

LITERATURE CITED

- DAVIDSE G., M. SOUSA S. AND A. O. CHATER (eds.). 1994. Flora Mesoamericana. Vol. 6. Universidad Nacional Autónoma de México.
SMITH L. B. 1958. Bromeliad Soc. Bull. 8: 24–25.

DE REBUS BROMELIACEARUM II

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ABSTRACT. This paper contains taxonomic and publication information for Bromeliaceae that was not included in, or which appeared after, the publication of L.B. Smith and R.J. Downs' Flora Neotropica Monograph 14, Part 1 (1974); Part 2 (1977); Part 3 (1979), and Luther & Sieff (1994). Please refer to the last-mentioned publication for additional information. Additionally, for new taxa, it contains scientific names and their authors, publication sources and dates, country of origin, and locations of type specimens. Miscellaneous supplemental information where considered useful is included.

ABSTRACTO. Este trabajo contiene información taxonómica sobre Bromeliaceae la cual no fue incluida o que apareció después de la publicación de L.B. Smith y R.J. Downs en Flora Neotropica Monografía 14, Parte 1 (1974); Parte 2 (1977); Parte 3 (1979) y en Luther & Sieff (1994). Refiérese a la publicación posterior para información adicional. Para los nuevos taxa se incluyen los nombres y los autores, las fuentes y las fechas de las publicaciones, el país de origen y la localización de los especímenes tipo. También, se incluye información complementaria donde se considera útil.

INTRODUCTION

It is our intent in this paper to bring together all references to taxonomic changes for Bromeliaceae that were not included in Flora Neotropica Monograph 14 (hereinafter referred to as FNM 14) and De Rebus Bromeliacearum I, that have been published prior to January 1997, into a format that is directly comparable and supplementary to FNM 14. Also included are selected miscellaneous references to both old and new taxa that we believe to be useful. The authors solicit additions and corrections.

All entries are arranged in a numbered, systematic sequence based on that used in FNM 14. The first number given is the genus number. Whole numbers are as published in FNM 14. Genus numbers with a decimal point were not included in FNM 14 or have been reclassified since its publication. Where the original author stated affinity, that has, in most cases, been followed. Where relationships were not stated or were ambiguous, the senior author has assigned the number based upon his understanding of the taxa involved.

Following the hyphen is the species number. Whole species numbers (with the exception of *Deuterocohnia*, *Racinaea*, *Alcantarea* and *Werauhia* for which see the notes at the beginning of the treatment for those genera) are as published in FNM 14. Species with numbers containing a decimal point were not included in, or have been reclassified since, the publication of FNM 14. The numbers with a decimal assigned to new or reclassified taxa reflect the apparent affinity to taxa included in FNM 14. Where the original author stated affinity, that, in most cases, has been followed here. Where a relationship was not stated or was ambiguous, the senior author has assigned a number based upon his understanding of the taxa involved. For both species and genera, the numbers to the right of the decimal point have, in most cases, been assigned on the order of publication and do not necessarily reflect the relationships among the "decimal taxa".

Directly following the species numbers are numerals or letters for infraspecific taxa. Infraspecific taxa are denoted as follows:

Subspecies are given whole Arabic numerals in parentheses, e.g.: (2).

Varieties are given lower case letters, e.g.: b.

Forma are given lower case Roman numerals, e.g.: ii.

The typical infrappecific taxon "(1)" or "a" is not listed unless this contains a taxon of lower rank. Similarly, the type form "i" is not listed.

The sequence given infraspecific taxa is that used in FNM 14; for taxa not there included, or for newly reclassified taxa, the sequence, in most cases, is based on publication date and does not necessarily reflect relationships among the infraspecific taxa.

Validly named and described natural hybrids are denoted by a zero ("0"). Also denoted by a zero are validly published taxa the senior author does not feel warrant being listed in a systematic compilation.

Following the numbers is the taxon's name and author. Orthographic corrections, mostly involving gender, have been made where appropriate. For new taxa, new combinations, and changes in rank, the name and date of the publication is given. Basionyms are listed for new combinations and changes in rank.

Following the publication information for new taxa is the country of origin, and in most cases, a state, province, department or similar geo-political "type" locality. The location of the holotype and isotypes is given using standard abbreviations listed in Index Herbariorum ed. 8 (Holmgren et al., 1990).

References for synonymy are listed after the equal (=) sign.

All entries concerning reclassification, synonymy or miscellaneous supplementary notes, if not referenced, are based upon the senior author's understanding of the taxa involved.

General and frequently cited references are listed in the literature cited.

BROMELIACEAE A.L. deJussieu. See E.M.C. Leme and L.C. Marigo, Bromeliads in the Brazilian Wilderness. 1993; U. & U. Baensch, Blooming Bromeliads. 1994; G. Martinelli, Reproductive Biology of Bromeliaceae in the Atlantic Rainforest of Southeastern Brazil: Ph.D. Dissertation, Univ. of St. Andrews, Scotland.

1 PUYA Molina.

- 1-50 **P. phelpsi** L.B.Smith.
= *Pitcairnia phelpsi* (L.B.Smith) B.Holst & L.B.Smith, J. Bromeliad Soc. 43:256. 1993.
- 1-59.1 **P. robin-fosteri** H.Luther, Selbyana 16(2):235,237. 1995. Peru:Oxapampa. [Holo: MO; Iso:SEL].
- 1-147.1 **P. prosanae** Ibsch & E.Gross, J. Bromeliad Soc. 43:211-5. 1993. Bolivia:Cochabamba. [Holo:HEID; Iso:LBPB].
- 1-147.2 **P. butcheriana** H.Luther, Selbyana 16(2):237-8. 1995. Nativity unknown. [Holo:SEL]. See also Butcher, J. Bromeliad Soc. 46:103-4. 1996.

2 ENCHOLIRIUM Martius.

- 2-1 **E. spectabile** Martius ex Schultes f. Unchanged from Smith & Downs (1974) but its omission for that reason from De Rebus Bromeliacearum I (Luther & Sieff, 1994) has caused confusion.
- 2-2.1 **E. longiflorum** Leme, Selbyana 16(1):110-11. 1995. Brazil:Minas Gerais. [Holo:MBM; Iso:HB].

3 FOSTERELLA L.B.Smith. See Smith & Read, Bradea 6:134-40. 1992.

- 3-11.1 **F. windischii** L.B.Smith & R.W.Read, Bradea 6:134-40. 1992. Brazil:Mato Grosso. [Holo:US; Iso:HB].
- 3-11.2 **F. hatschbachii** L.B.Smith & R.W.Read, Bradea 6:134-40. 1992. Brazil:Mato Grosso. [Holo:US; Iso:MBM].

4 CONNELLIA Brown.

- 4-3.1 **C. nahoumii** Leme, Bromelia 3(2):13-18. 1996. Venezuela:Bolivar. [Holo:HB].

5.2 LINDMANIA Mez.

- 5.2-14.1 **L. candelabriformis** B.Holst, J. Bromeliad Soc. 46:156-7. 1996. Venezuela:Amazonas. [Holo:MYF].
- 5.2-18.1 **L. oliva-estevae** Steyermark & L.B.Smith ex B.Holst, J. Bromeliad Soc. 46:158-9,163. 1996. Venezuela:Bolivar. [Holo:VEN; Iso:MO].
- 5.2-23.2 **L. terramarae** L.B.Smith, Steyermark & H.Robinson. = *L. marahuacae* (L.B.Smith, Steyermark & H.Robinson) L.B.Smith. See B.Holst, Selbyana 15(1):141. 1994.
- 5.2-23.3 **L. marahuacae** (L.B.Smith, Steyermark & H.Robinson) L.B.Smith.
SYN.: *L. terramarae* L.B.Smith, Steyermark & H.Robinson.

6 DEUTEROCOHNIA Mez. See M.A.Spencer & L.B.Smith, Bradea 6:141-5. 1993.

- 6-1 **D. brevifolia** (Grisebach) M.A.Spencer & L.B.Smith, Bradea 6:141-5. 1993.
BASIONYM: *Navia brevifolia* Grisebach, Symb. Argent. in Goett. Abn. 24:332. 1879.
SYN.: *Abromeitiella brevifolia* (Grisebach) A.Castellanos.
- 6-2 **D. lorentziana** (Mez) M.A.Spencer & L.B.Smith, Bradea 6:141-5. 1993.
BASIONYM: *Pitcairnia lorentziana* Mez in C.DeCandolle, Monogr. Phan. 9:373. 1896.
SYN.: *Abromeitiella lorentziana* (Mez) A.Castellanos.
- 6-3 **D. lotteae** (Rauh) M.A.Spencer & L.B.Smith, Bradea 6:141-5. 1993.
BASIONYM: *Abromeitiella lotteae* Rauh, Trop. Subtrop. Pflanzenwelt 42:5-12. 1983.
- 6-4 **D. scapigera** (Rauh & L.Hromadnik) M.A.Spencer & L.B.Smith, Bradea 6:141-5. 1993.
BASIONYM: *Abromeitiella scapigera* Rauh & L.Hromadnik, Trop. Subtrop. Pflanzenwelt 60:5-8. 1987.
- 6-5 **D. digitata** L.B.Smith.
Formerly 6 in Smith & Downs (1974).
- 6-6 **D. longipetala** (Baker) Mez.
Formerly 1 in Smith & Downs (1974).
- 6-6.1 **D. recurvipetala** E.Gross.
Formerly 1.1 in Luther & Sieff (1994).
- 6-7 **D. meziana** Kuntze ex Mez.
Formerly 2 in Smith & Downs (1974).
- 6-7b **D. meziana** var. *carmineoviridiflora* Rauh.
Formerly 2b in Luther & Sieff (1994).
- 6-8 **D. haumanii** A.Castellanos.
Formerly 3 in Smith & Downs (1974).
- 6-9 **D. glandulosa** E.Gross.
Formerly 3.1 in Luther & Sieff (1994).
- 6-10 **D. schreiteri** A.Castellanos.
Formerly 4 in Smith & Downs (1974).
- 6-11 **D. brevispicata** Rauh & L.Hromadnik.
Formerly 2.1 in Luther & Sieff (1994).
- 6-12 **D. strobilifera** Mez.
Formerly 5 in Smith & Downs (1974).
- 6-12b **D. strobilifera** var. *inermis* L.B.Smith.
Formerly 5b in Smith & Downs (1974).
- 6-13 **D. chrysantha** (Philippi) Mez.
Formerly 7 in Smith & Downs (1974).

7 ABROMEITIELLA Mez. = Deuterocohnia. See Spencer & Smith, Bradea 6:141-5. 1993.

- 7-1 **A. brevifolia** (Grisebach) A.Castellanos.
= *Deuterocohnia brevifolia* (Grisebach) M.A.Spencer & L.B.Smith, Bradea 6:141-5. 1993.
- 7-2 **A. lorentziana** (Mez) A.Castellanos.
= *Deuterocohnia lorentziana* (Mez) M.A.Spencer & L.B.Smith, Bradea 6:141-5. 1993.
- 7-2.1 **A. scapigera** Rauh & L.Hromadnik.
= *Deuterocohnia scapigera* (Rauh & L.Hromadnik) M.A.Spencer & L.B.Smith, Bradea 6:141-5. 1993.
- 7-2.2 **A. lotteae** Rauh.
= *Deuterocohnia lotteae* (Rauh) M.A.Spencer & L.B.Smith, Bradea 6:141-5. 1993.

8 PITCAIRNIA L'Héritier.

- 8-3 **P. wurdackii** L.B.Smith. Previously cited as a synonym of *Pepinia wurdackii* (L.B.Smith) G.S.Varadarajan & Gilmartin. See Luther & Sieff (1994).
= *Pepinia bulbosa* (L.B.Smith) G.S.Varadarajan & Gilmartin.

- 8-5.1 **P. graniticola** B.Holst, J. Bromeliad Soc. 43:254-6. 1993. Venezuela:Bolivar. [Holo:VEN].
- 8-9 **P. breweri** L.B.Smith. Previously cited as a synonym of *Pepinia breweri* (L.B.Smith) G.S.Varadarajan & Gilmartin. See Luther & Sieff (1994).
= *Pepinia armata* (L.B.Smith) G.S.Varadarajan & Gilmartin.
- 8-16.1 **P. cana** B.Holst, J. Bromeliad Soc. 43:250-3, 255. 1993. Venezuela:Amazonas. [Holo:VEN; Iso:MO].
- 8-16.2 **P. phelpsi** (L.B.Smith) B.Holst & L.B.Smith, J. Bromeliad Soc. 43:256. 1993. BASIONYM: *Puya phelpsi* L.B.Smith, Brittonia 7:78. 1950.
- 8-57 **P. halophila** L.B.Smith. See Grant, J. Bromeliad Soc. 44:170-2. 1994.
- 8-60.1 **P. calcicola** J.R.Grant & J.F.Morales, Novon 6:366-9. 1996. Costa Rica:Guanacaste. [Holo:INB; Iso:CR,MO,US].
- 8-101 **P. violascens** L.B.Smith.
SYN.: *P. violascens* var. *bogneri* Rauh.
- 8-101b **P. violascens** var. *bogneri* Rauh.
= *P. violascens* L.B. Smith.
- 8-163 **P. reflexiflora** André.
SYN.: *P. reflexiflora* var. *longipetala* E.Gross & Rauh.
- 8-163c **P. reflexiflora** var. *longipetala* E.Gross & Rauh.
= *P. reflexiflora* André.
- 8-194 **P. wendlandii** Baker.
SYN.: *P. ochroleuca* (K.Koch & Bouché) Baker.
- 8-195.2 **P. lindae** Betancur, Caldasia 17:379-82. 1995. Colombia:Antioquia. [Holo:HUA].
- 8-195.3 **P. croatii** H.Luther, Selbyana 18(1): 101-2. 1997. Panama:Chiriqui. [Holo:MO].
- 8-200 **P. oblanceolata** L.B.Smith.
= *P. arcuata* (André) André. See Utley (1994, p.92).
- 8-201 **P. arcuata** (André) André.
SYN.: *P. oblanceolata* L.B.Smith.
- 8-201.1 **P. clarkii** H.Luther, Selbyana 18(1): 98-9. 1997. Ecuador:Esmeraldas. [Holo:SEL; Iso:MO,QCNE,QCA].
- 8-213 **P. ochroleuca** (K. Koch & Bouché) Baker.
= *P. wendlandii* Baker. See Utley (1994, p.98).
- 8-230 **P. cylindrostachya** L.B.Smith. Isotype at BHUPM. See Till (1995, p.415).
- 8-235 **P. tuerckheimii** Donnell Smith.
SYN.: *P. tuerckheimii* var. *macrolepis* L.B.Smith.
- 8-235b **P. tuerckheimii** var. *macrolepis* L.B.Smith.
= *P. tuerckheimii* Donnell Smith. See Utley (1994, p.97).

8.1 PEPINIA Brongniart ex André. See H.Luther, Bromelia 2(4):22-23. 1995.

- 8.1-3 **P. wurdackii** (L.B.Smith) G.S.Varadarajan & Gilmartin.
= *P. bulbosa* (L.B.Smith) G.S.Varadarajan & Gilmartin. See Holst (1994, p.149).
- 8.1-6 **P. bulbosa** (L.B.Smith) G.S.Varadarajan & Gilmartin.
SYN.: *Pitcairnia wurdackii* L.B.Smith.
SYN.: *Pepinia wurdackii* (L.B.Smith) G.S.Varadarajan & Gilmartin.
- 8.1-8 **P. armata** (Maury) G.S.Varadarajan & Gilmartin.
SYN.: *Pitcairnia breweri* L.B.Smith.
SYN.: *Pepinia breweri* (L.B.Smith) G.S.Varadarajan & Gilmartin.
- 8.1-9 **P. breweri** (L.B.Smith) G.S.Varadarajan & Gilmartin.
= *P. armata* (Maury) G.S.Varadarajan & Gilmartin. See Holst (1994, p.149).
- 8.1-19.1 **P. cristalinensis** Leme, Selbyana 16(1):110-11. 1995. Brazil:Goias. [Holo:MBM].
- 8.1-24.3 **P. leopoldii** W.Till & S.Till, Bromelia 1(3):6-8. 1994. Venezuela:Amazonas. [Holo:BR].
- 8.1-33.2 **P. tatzyaniae** H.Luther, Bromelia 2(4):38-40. 1995. Peru:Madre de Dios. [Holo:F; Iso:USM].

9 BROCCINIA Schultes.

- 9-5.1 **B. oliva-estevae** Steyermark & L.B.Smith.
= *B. tatei* L.B.Smith. See Holst (1994, p.138).

- 9-6 **B. bernardii** L.B.Smith.
= *B. melanacra* L.B.Smith. See Holst (1994, p.138).
- 9-10 **B. melanacra** L.B.Smith.
SYN.: *B. bernardii* L.B.Smith.
- 9-11 **B. micrantha** (Baker) Mez.
See Oliva-Estevae, J. Bromeliad Soc. 44:243-6. 1994.
- 9-13 **B. cryptantha** L.B.Smith.
= *B. hechtoides* Mez. See Holst (1994, p.138).
- 9-15 **B. tatei** L.B.Smith.
SYN.: *B. oliva-estevae* Steyermark & L.B.Smith.
SYN.: *B. secunda* L.B.Smith.
- 9-16 **B. secunda** L.B.Smith.
= *B. tatei* L.B.Smith. See Holst (1994, p.138).
- 9-17 **B. reducta** Baker. See Schneider, Palmgarten 58/1:54-9. 1994; J. Bromeliad Soc. 45:77-83. 1995. See also Neuhaus, Bromelie 1995(3):69-77. 1996.
- 9-18 **B. hechtoides** Mez.
SYN.: *B. cryptantha* L.B.Smith.

11 NAVIA Martius.

- 11-3.1 **N. plowmanii** L.B.Smith, Steyermark & H.Robinson.
= *N. diffusa* L.B.Smith. See Holst (1994, p.143).
- 11-5 **N. gracilis** L.B.Smith.
= *N. reflexa* L.B.Smith. See Holst (1994, p.143).
- 11-8 **N. diffusa** L.B.Smith.
SYN.: *N. plowmanii* L.B.Smith, Steyermark & H.Robinson.
- 11-8.2 **N. platyphylla** L.B.Smith & Steyermark.
= *N. ramosa* L.B.Smith. See Holst (1994, p. 143).
- 11-10 **N. reflexa** L.B.Smith.
SYN.: *N. gracilis* L.B.Smith.
- 11-11 **N. ramosa** L.B.Smith.
SYN.: *N. platyphylla* L.B.Smith & Steyermark.
- 11-15.1 **N. tentaculata** B.Holst, J. Bromeliad Soc. 46:166-8. 1996. Venezuela:Bolívar. [Holo:VEN].
- 11-16.1 **N. parwana** B.Holst, J. Bromeliad Soc. 46:164-5. 1996. Venezuela:Amazonas. [Holo:MYF].
- 11-20 **N. phelpsi** L.B.Smith.
SYN.: *N. grafii* Steyermark & B.Holst.
- 11-20.1 **N. grafii** Steyermark & B.Holst.
= *N. phelpsi* L.B.Smith. See Holst (1994, p.143).
- 11-28 **N. nubicola** L.B.Smith.
SYN.: *N. iosothrix* L.B.Smith & Steyermark.
SYN.: *N. pedemontana* L.B.Smith, Steyermark & H.Robinson.
- 11-38.3 **N. glandulifera** B.Holst, J. Bromeliad Soc. 46:160-1. 1996. Venezuela:Bolívar. [Holo:MO; Iso:NY,PORT,SEL].
- 11-39.1 **N. pedemontana** L.B.Smith, Steyermark & H.Robinson.
= *N. nubicola* L.B.Smith. See Holst (1994, p.143).
- 11-42.1 **N. iosothrix** L.B.Smith & Steyermark.
= *N. nubicola* L.B.Smith. See Holst (1994, p.143).
- 11-47.1 **N. delascionis** L.B.Smith, Steyermark & H.Robinson.
= *N. berryana* L.B.Smith, Steyermark & H.Robinson. B.Holst, pers. comm.
- 11-51.3 **N. berryana** L.B.Smith, Steyermark & H.Robinson.
SYN.: *T. delascionis* L.B.Smith, Steyermark & H.Robinson.
- 11-57.1 **N. ebracteata** Betancur & Arbeláez, Mutisia 75:1-5. 1995. Colombia:Caqueta. [Holo:COL; Iso:COAH,HUA].
- 11-68.2 **N. mosaica** B.Holst, J. Bromeliad Soc. 43:248-51. 1993. Venezuela:Amazonas. [Holo:US; Iso:Ven].

12 DYCKIA Schultes.

- 12-31.1 **D. excelsa** Leme, Pabstia IV(4):6-7. 1993. Brazil:Mato Grosso. [Holo:HB].

13 HECHTIA Klotsch.

- 13-1.1 **H. gayi** L.W.Lenz, Aliso 14 (1):59-61. 1995. Mexico:Baja California Sur. [Holo:RSA].
- 13-14 **H. stenopetala** Klotzsch. See Till (1995, p.415).
- 13-39.1 **H. glauca** Burt-Utley & J.Utley, Brittonia 45:219-22. 1993. Mexico:Michoacan. [Holo:MEXU; Iso:B,CAS,MO,DUKE,IEB,MICH,NY,US].
- 13-40.1 **H. iltisii** Burt-Utley & J.Utley, Brittonia 45:222-5. 1993. Mexico:Jalisco. [Holo:MEXU; Iso:DUKE,MICH,MO,NY,US,WIS].

14 TILLANDSIA Linnaeus. See Beaman and Judd (1996); Grant (1993a). Although a number of *Vriesea s.l.* have been transferred to *Tillandsia s.s.* (Grant 1993b; 1996), the senior author feels it is premature to accept those changes; however we note them under both *Tillandsia* and *Vriesea*.

- 14-0 **T. andreetae** (Rauh) J.R.Grant, Phytologia 75:170-5. 1993.
BASIONYM: *Vriesea andreetae* Rauh. Trop. Subtrop. Pflanzenwelt. 43:22-8. 1983.
= *Vriesea andreetae* Rauh.
- 14-0 **T. arpocalyx** André.
Formerly treated as a synonym of *Vriesea arpocalyx* (André) L.B.Smith in Smith & Downs (1977).
= *Vriesea arpocalyx* (André) L.B.Smith. But see Grant (1993b).
- 14-0 **T. azuayensis** (Rauh & E.Gross) J.R.Grant, Phytologia 77:99-101. 1994.
BASIONYM: *Vriesea wuelfinghoffii* Rauh & E.Gross, Trop. Subtrop. Pflanzenwelt 79:25-7. 1991.
= *Vriesea wuelfinghoffii* Rauh & E.Gross.
- 14-0 **T. barclayana** Baker.
Formerly treated as a synonym of *Vriesea barclayana* (Baker) L.B.Smith in Smith & Downs (1977).
= *Vriesea barclayana* (Baker) L.B.Smith. But see Grant (1993).
- 14-0 **T. boeghii** (H.Luther) J.R.Grant, Phytologia 75:170-5. 1993.
BASIONYM: *Vriesea boeghii* H.Luther, Nordic J. Bot. 12(2):221. 1992.
= *Vriesea boeghii* H.Luther.
- 14-0 **T. castaneobulbosa** Mez & Wercklé.
Formerly treated as a synonym of *Vriesea castaneobulbosa* (Mez & Wercklé) J.R.Grant in Luther & Sieff (1994).
= *Vriesea castaneobulbosa* (Mez & Wercklé) J.R.Grant. But see Grant (1993).
- 14-0 **T. cathcartii** (H.Luther) J.R.Grant, Phytologia 79:254-6. "1995" 1996.
BASIONYM: *Vriesea cathcartii* H.Luther, J. Bromeliad Soc. 45:52. 1995.
= *Vriesea cathcartii* H.Luther.
- 14-0 **T. cereicola** Mez.
Formerly treated as a synonym of *Vriesea cereicola* (Mez) L.B.Smith in Smith & Downs (1977).
= *Vriesea cereicola* (Mez) L.B.Smith. But see Grant (1993).
- 14-0 **T. curvispica** (Rauh) J.R.Grant, Phytologia 75:170-5. 1993.
BASIONYM: *Vriesea curvispica* Rauh, Trop. Subtrop. Pflanzenwelt. 42:21-4. 1983.
= *Vriesea curvispica* Rauh.
- 14-0 **T. drewii** (L.B.Smith) J.R.Grant, Phytologia 75:170-5. 1993.
BASIONYM: *Vriesea drewii* L.B.Smith, Phytologia 5:401. 1956.
= *Vriesea drewii* L.B.Smith.
- 14-0 **T. harmsiana** L.B.Smith.
Formerly treated as a synonym of *Vriesea harmsiana* (L.B.Smith) L.B.Smith in Smith & Downs (1977).
= *Vriesea harmsiana* (L.B.Smith) L.B.Smith. But see Grant (1993).
- 14-0 **T. hitchcockiana** L.B.Smith.
Formerly treated as a synonym of *Vriesea hitchcockiana* (L.B.Smith) L.B.Smith in Smith & Downs (1977).
= *Vriesea hitchcockiana* (L.B.Smith) L.B.Smith. But see Grant (1993).

- 14-0 **T. incurva** Grisebach.
Formerly treated as a synonym of *Vriesea incurva* (Grisebach) R.W.Read in Smith & Downs (1977).
= *Vriesea incurva* (Grisebach) R.W.Read. But see Grant (1993).
- 14-0 **T. limonensis** (Rauh) J.R.Grant, Phytologia 75:170-5. 1993.
BASIONYM: *Vriesea limonensis* Rauh, Trop. Subtrop. Pflanzenwelt 43:22. 1983.
= *Vriesea limonensis* Rauh.
- 14-0 **T. olmosana** (L.B.Smith) J.R.Grant, Phytologia 75:170-5. 1993.
BASIONYM: *Vriesea olmosana* L.B.Smith, Phytologia 13:113. 1966.
= *Vriesea olmosana* L.B.Smith.
- 14-0b **T. olmosana** var. **pachamamae** (Rauh) J.R.Grant, Phytologia 75:170-5. 1993.
BASIONYM: *Vriesea olmosana* var. *pachamamae* Rauh, Trop. Subtrop. Pflanzenwelt. 43:29. 1983.
= *Vriesea olmosana* var. *pachamamae* Rauh.
- 14-0 **T. patula** Mez.
Formerly treated as a synonym of *Vriesea patula* (Mez) L.B.Smith in Smith & Downs (1977).
= *Vriesea patula* (Mez) L.B.Smith. But see Grant (1993).
- 14-0 **T. penduliscapa** (Rauh) J.R.Grant, Phytologia 75:170-5. 1993.
BASIONYM: *Vriesea penduliscapa* Rauh, Trop. Subtrop. Pflanzenwelt 18:21. 1976.
= *Vriesea penduliscapa* Rauh.
- 14-0 **T. pereziana** André.
Formerly treated as a synonym of *Vriesea pereziana* (André) L.B.Smith in Smith & Downs (1977).
= *Vriesea pereziana* (André) L.B.Smith. But see Grant (1993).
- 14-0 **T. peruviana** J.R.Grant, Phytologia 75:170-5. 1993.
BASIONYM: *Vriesea sagasteguii* L.B.Smith, Phytologia 16:82. 1968.
= *Vriesea sagasteguii* L.B.Smith.
- 14-0 **T. petraea** L.B.Smith.
Formerly treated as a synonym of *Vriesea petraea* (L.B.Smith) L.B.Smith in Smith & Downs (1977).
= *Vriesea petraea* (L.B.Smith) L.B.Smith. But see Grant (1993).
- 14-0 **T. porphyrocraspeda** J.R.Grant, Phytologia 75:170-5. 1993.
BASIONYM: *Vriesea cylindrica* L.B.Smith, Contr. U.S. Natl. Herb. 29:445. 1951.
= *Vriesea cylindrica* L.B.Smith.
- 14-0 **T. robusta** Grisebach.
Formerly treated as a synonym of *Vriesea robusta* (Grisebach) L.B.Smith in Smith & Downs (1977).
= *Vriesea robusta* (Grisebach) L.B.Smith. But see Grant (1993).
- 14-0 **T. strobeliae** (Rauh) J.R.Grant, Phytologia 75:170-5. 1993.
BASIONYM: *Vriesea strobeliae* Rauh, Trop. Subtrop. Pflanzenwelt. 18:17. 1976.
= *Vriesea strobeliae* Rauh.
- 14-0 **T. tequendamae** (André) L.B.Smith.
Formerly treated as a synonym of *Vriesea tequendamae* André in Smith & Downs (1977).
= *Vriesea tequendamae* André. But see Grant (1993).
- 14-0 **T. tillandsioides** (L.B.Smith) J.R.Grant, Phytologia 75:170-5. 1993.
BASIONYM: *Vriesea tillandsioides* L.B.Smith, Phytologia 9:256. 1963.
= *Vriesea tillandsioides* L.B.Smith.
- 14-0 **T. werneriana** J.R.Grant, Phytologia 75:170-5. 1993.
BASIONYM: *Vriesea rauhii* L.B.Smith, Phytologia 6:194. 1958.
= *Vriesea rauhii* L.B.Smith.
- 14-0 **T. yaconorensis** J.R.Grant, Phytologia 75:170-5. 1993.
BASIONYM: *Vriesea koideae* Rauh, J. Bromeliad Soc. 42:148. 1992.
= *Vriesea koideae* Rauh.
- 14-3.1 **T. naundorffiae** Rauh & Barthlott.
= *T. stenoura* var. *mauroi* Gilmartin.

- 14-6 **T. lajensis** André.
SYN.: *T. ampla* Mez & Sodiro.
SYN.: *T. arcuans* L.B.Smith.
SYN.: *T. arcuans* var. *naundorffiae* Gilmartin.
- 14-15c **T. stenoura** var. *mauroi* Gilmartin.
SYN.: *T. naundorffiae* Rauh & Barthlott.
- 14-29 **T. deppeana** Steudel.
See Till (1995, p.418-9).
- 14-37.1 **T. australis** Mez.
See Blackburn, J. Bromeliad Soc. 46:170-1. 1996.
- 14-39.1 **T. makrinii** L.Hromadnik, Bromelie 1994(1):2-4. 1994. Mexico:Oaxaca. [Holo:WU].
- 14-40.1 **T. marcalaensis** Rauh & E.Gross.
= *T. excelsa* Grisebach.
- 14-47 **T. excelsa** Grisebach.
SYNTYPE (HAL). See Till (1995, p.417).
SYN.: *T. marcalaensis* Rauh & E.Gross.
SYN.: *T. werckleana* Mez.
- 14-63 **T. werckleana** Mez.
= *T. excelsa* Grisebach. See Utley (1994, p.104).
- 14-74.1 **T. coinaensis** Ehlers.
Formerly 25.2 in Luther & Sieff (1994).
- 14-83 **T. arcuans** L.B.Smith.
= *T. lajensis* André.
- 14-83b **T. arcuans** var. *naundorffiae* Gilmartin.
= *T. lajensis* André.
- 14-89 **T. ampla** Mez & Sodiro.
= *T. lajensis* André.
- 14-98b **T. chartacea** var. *peruviana* L.B.Smith.
= *T. queroensis* Gilmartin.
- 14-105.2 **T. dexteri** Luther.
See Eistetter, Bromelie 1995(3):85-6. 1996.
- 14-114.2 **T. laminata** L.B.Smith.
SYN.: *Racinaea laminata* (L.B.Smith) M.A.Spencer & L.B.Smith.
- 14-116 **T. gayi** Baker.
= *T. latifolia* var. *divaricata* (Bentham) Mez.
- 14-125 **T. edithiae** Rauh.
Type locality is Bolivia:Santa Cruz. See Till (1995, p.416).
- 14-139 **T. latifolia** Meyen.
See Rauh & von Bismark, Trop. Subtrop. Pflanzenwelt 94:1-46. 1996.
- 14-139c **T. latifolia** var. *divaricata* (Bentham) Mez.
SYN.: *T. gayi* Baker
- 14-139.3 **T. buchlohii** Rauh.
See Till in Bromelia 3(4):38-9. 1996.
- 14-143 **T. queroensis** Gilmartin.
SYN.: *T. chartacea* var. *peruviana* L.B.Smith.
- 14-146.1aii **T. zecheri** var. *zecheri* forma *brealitoensis* Palací & G.K.Brown, J. Bromeliad Soc. 44:107-16. 1994. Argentina:Salta. [Holo:RM; Iso:MCNS].
- 14-146.1b **T. zecheri** var. *cafayatisensis* Palací & G.K.Brown, J. Bromeliad Soc. 44:107-16. 1994. Argentina:Salta. [Holo:MCNS; Iso:RM].
"T. cafayatisensis" was reported as a provisional name in Luther & Sieff (1994).
SYN.: *T. muhrrii* Rauh.
- 14-146.3 **T. hegeri** Ehlers, Bromelie 1994(2):33-5. 1994. Bolivia. [Holo:WU].
- 14-151.2 **T. muhrrii** Rauh.
Formerly treated as a synonym of unpublished taxon "T. cafayatisensis" in Luther & Sieff (1994).
= *T. zecheri* var. *cafayatisensis* Palací & G.K.Brown. See Palací & Brown, J. Bromeliad Soc. 44:107-16. 1994.

- 14-151.5 **T. ramellae** W.Till & S.Till, Candollea 50:453-6. 1995. Paraguay:Chaco. [Holo:G; Iso:CTES,FCQ,G,MO,WU].
- 14-155.2 **T. reclinata** E.Pereira & Martinelli.
Type is *G. Martinelli* 7413. See Till (1995, p.419).
- 14-162.1 **T. muhrii** Weber. See Palací & G.K.Brown, J. Bromeliad Soc. 43:99-104, 119. 1993.
- 14-167(2) **T. xiphioides** ssp. *prolata* H.Luther, J. Bromeliad Soc. 46:211-2. 1996. Bolivia:La Paz. [Holo:SEL; Iso:LPB].
- 14-170b **T. meridionalis** var. *subsecundifolia* W.Weber & Ehlers.
Cited as a synonym of *T. recurvifolia* var. *subsecundifolia* (W.Weber & Ehlers) W.Till in Till & Luther, J. Bromeliad Soc. 45:264-8. 1995.
= *T. leonamiana* E.Pereira. See Till in Till & Luther, J. Bromeliad Soc. 45:264-8. 1995.
- 14-170.1 **T. leonamiana** E.Pereira.
SYN.: *T. meridionalis* var. *subsecundifolia* W.Weber & Ehlers.
SYN.: *T. recurvifolia* var. *subsecundifolia* (W.Weber & Ehlers) W.Till.
- 14-170.2 **T. recurvifolia** Hooker.
Formerly treated as a synonym of *T. rosea* Lindley in Smith & Downs (1977). See Weber, J. Bromeliad Soc. 32:329-46. 1982.
SYN.: *T. meridionalis*. See Till & Luther, J. Bromeliad Soc. 45:264-8. 1995.
- 14-170.2b **T. recurvifolia** var. *subsecundifolia* (W.Weber & Ehlers) W.Till in Till & Luther, J. Bromeliad Soc. 45:264-8. 1995.
= *T. leonamiana* E.Pereira.
- 14-171.2 **T. thiekenii** Ehlers.
See Heidt, Bromelie 1994(2):59-60. 1994.
- 14-172 **T. ixioides** Grisebach.
Isotypes (BHUPM, GFW). See Till (1995, p.417).
- 14-175aii **T. stricta** forma *nivea* Leme, Pabstia IV(3):6. 1993. Brazil:Rio de Janeiro. [Holo:HB].
- 14-176.2 **T. burle-marxii** Ehlers, Bromelie 1994(3):74-8. 1994. Brazil:Bahia. [Holo:WU].
- 14-178.3 **T. milagrensis** Leme, J. Bromeliad Soc. 43:243-4. 1993. Brazil:Bahia. [Holo:HB].
- 14-205 **T. paleacea** Presl.
See Zizka & Munoz-Schick, Bol. Mus. Nac. Hist. Nat. Chile 44: 11-17. 1993.
- 14-205.1 **T. marconae** W.Till & Vitek.
See Zizka & Munoz-Schick, Bul. Mus. Nac. Hist. Nat. Chile. 44: 11-17. 1993.
- 14-208 **T. purpurea** Ruiz & Pavon.
See Rauh & von Bismark, Trop. Subtrop. Pflanzenwelt 94:1-46. 1996.
- 14-219.1 **T. pedicellata** (Mez) A.Castellanos.
See Till (1995, p.416).
- 14-226.2 **T. tenebra** L.Hromadnik & W.Till.
Paratype (BHUPM). See Till (1995, p.419).
- 14-228 **T. retorta** Grisebach ex Baker.
Isolectotype (BHUPM). See Till (1995, p.419).
- 14-229 **T. andicola** Grisebach ex Baker.
See Till (1995, p.418).
- 14-231 **T. recurvata** (Linnaeus) Linnaeus.
See Holcomb, Proc. Louisiana Acad. Sci. 58:11-17. 1995.
- 14-232 **T. capillaris** Ruiz & Pavon.
See Till (1995, p.417).
- 14-232.1 **T. virescens** Ruiz & Pavon.
See Till (1995, p.416).
- 14-232.2 **T. kuehhasii** W.Till, Bromelie 1995(2):33-5. 1995. Bolivia:Chuquisaca/Potosi. [Holo:WU; Iso:WU].
- 14-233 **T. usneoides** (Linnaeus) Linnaeus.
See Till (1995, p.420). See also Rauh & von Bismark, Trop. Subtrop. Pflanzenwelt 94:1-46. 1996.
- 14-234.1 **T. taxcoensis** Ehlers, Bromelie 1996(1):26-9, cover. 1996. Mexico:Morelos. [Holo:WU; Iso:WU].

- 14-241 *T. multicaulis* Steudel.
See Till (1995, p.415).
- 14-244.1 *T. laui* Matuda.
See Ehlers, Bromelie 1995(2):42-4. 1995.
- 14-244.3 *T. tillii* Ehlers.
See Ehlers, Bromelie 1995(2):43-6. 1995.
- 14-245 *T. andreana* E.Morren ex André.
See Holst (1994, p.149).
- 14-246e *T. ionantha* var. *stricta* Hort. ex Koide, J. Bromeliad Soc. 43:161. 1993. Mexico: Oaxaca. [Holo:SEL; Iso:US,MEXU]
- 14-246eii *T. ionantha* var. *stricta* forma *fastigiata* Koide, J. Bromeliad Soc. 43:162-3. 1993. Mexico:Oaxaca. [Holo:SEL; Iso:US,MEXU].
- 14-249.2 *T. setiformis* Ehlers, Bromelie 1993(1):3-6. 1993. Mexico:Oaxaco. [Holo:WU].
- 14-251.2 *T. occulta* H.Luther, Selbyana 18(1):99-101. 1997. Mexico:Sinaloa. [Holo:SEL; Iso: MEXU].
- 14-258 *T. xerographica* Rohweder.
See Vollmer, Bromelie 1995(1):2-4. 1995.
- 14-264 *T. achyrostachys* E. Morren ex Baker.
SYN.: *T. achyrostachys* var. *stenolepis* L.B.Smith.
- 14-264b *T. achyrostachys* var. *stenolepis* L.B.Smith.
Isotype (BHUPM). See Till. (1995, p.415).
= *T. achyrostachys* E. Morren. See Utley (1994, p.104).
- 14-267.1 *T. callichroma* L.Hromadnik, Bromelie 1993(1):27-9. 1993. Mexico:Oaxaco. [Holo: WU].
- 14-267.2 *T. ventanaensis* Ehlers & Koide, J. Bromeliad Soc. 45:18-20. 1955. Mexico:Du- rango [Holo:WU].
- 14-268.3b *T. supermexicana* var. *pendula* L.Hromadnik, Bromelie 1993(2):49-50. 1993. Mex- ico:Oaxaca. [Holo:WU].
- 14-268.3c *T. supermexicana* var. *saxicola* L.Hromadnik, Bromelie 1993(2):50. 1993. Mexico: Guerrero. [Holo:WU].
- 14-274.3 *T. marabascoensis* Ehlers & Lautner.
Formerly 282.7 in Luther & Sieff (1994).
- 14-277.5 *T. guenther-nolleri* Ehlers, Bromelie 1995(1):13-18. 1995. Mexico:Jalisco. [Holo: WU; Iso:WU].
- 14-281.1 *T. verapazana* Ehlers, Bromelie 1994(1):27-9 & cover. 1994. Guatemala:Baja Ver- apaz. [Holo:WU].
- 14-282a *T. fasciculata* var. *fasciculata* Swartz.
See Luther in Rhodora 883/884:342-7. 1993.
- 14-282f *T. fasciculata* var. *densispica* Mez.
Isolectotypes (BHUPM, GFW). See Till (1995, p.417).
- 14-282i *T. fasciculata* var. *uncispica* Mez.
Isolectotype (BHUPM). See Till (1995, p.417).
- 14-282.6 *T. rhomboidea* André.
SYN.: *T. acostae* André.
- 14-282.8 *T. beutelspacheri* Matuda.
Formerly 94 in Smith & Downs (1977). See Luther, J. Bromeliad Soc. 44:117-8. 1994.
- 14-285.3 *T. rubripica* Ehlers & Koide, J. Bromeliad Soc. 46:7-10. 1996. Mexico:Oaxaca. [Holo:WU; Iso:WU].
- 14-286.2 *T. salmonea* Ehlers, Bromelie 1995(3):65-8. 1996. Mexico:Chiapas. [Holo:WU; Iso: WU,SEL].
- 14-287 *T. acostae* Mez & Tonduz ex Mez.
= *T. rhomboidea* André.
- 14-297.1 *T. pamela* Rauh.
See Cházaro-Basáñez, J. Bromeliad Soc. 44:80-1, 85. 1994.
- 14-297.2 *T. trauneri* L.Hromadnik, Bromelie 1994(2):50-3. 1994. Mexico:Guerrero. [Holo: WU].
- 14-302.1 *T. fresnilloensis* W.Weber & Ehlers.
Formerly 348.1 in Luther & Sieff (1994).

- 14-306(1)i *T. utriculata* ssp. *utriculata* forma *utriculata* Linnaeus.
See Till (1995, p.415).
- 14-314 *T. subulifera* Mez.
See Grant, J. Bromeliad Soc. 43:120-2. 1993.
- 14-325.1 *T. paucifolia* Baker.
Formerly treated as a synonym of *T. circinnata* Schlechtendal in Smith & Downs (1977).
SYN.: *T. circinnata* Mez et auct.
- 14-330 *T. brachycaulos* Schlechtendal.
SYN. *T. bradeana* Mez & Tonduz.
See also Ehlers, Bromelie 1995(1) 26-9. 1995.
- 14-330.2 *T. bradeana* Mez & Tonduz.
Previously elevated to species status by Gardner (1982).
= *T. brachycaulos* Schlechtendal. See Utley (1994, p.106).
- 14-330.3 *T. kammii* Rauh, Trop. Subtrop. Pflanzenwelt 21:45-8. 1977. Honduras:Olancho. [Holo: HEID]. CITES Appendix II. 1992.
- 14-330.4 *T. velutina* Ehlers, J. Bromeliad Soc. 44:153-5, back cover. 1994. Mexico:Chiapas. [Holo:WU; Iso:WU].
- 14-332b *T. capitata* var. *guzmanioides* L.B.Smith.
= *T. lautneri* Ehlers, Bromelie 1993(2):38-40. 1993.
- 14-332.1 *T. rhodocephala* Ehlers & Koide, J. Bromeliad Soc. 44:130-3. 1994. Mexico:Oa- xaca. [Holo:WU].
- 14-336 *T. plagiotropica* Rohweder.
See Luther, J. Bromeliad Soc. 44:197, 212. 1994.
- 14-339.1 *T. cossonii* Baker.
Isotype (HAL). See Till (1995, p.416).
- 14-340.2 *T. lautneri* Ehlers, Bromelie 1993(2):38-40. 1993. Guatemala:Huehuetenango. [Holo:WU; Iso:WU].
SYN.: *T. capitata* var. *guzmanioides* L.B.Smith.
- 14-340.3 *T. mateoensis* Ehlers, Bromelie 1993(3):85-7, cover. 1993. Guatemala:Huehueten-ango. [Holo:WU; Iso:WU,SEL].
- 14-341 *T. eizii* L.B.Smith.
See Guess, J. Bromeliad Soc. 45:178-9. 1995.
- 14-347 *T. schiedeana* Steudel.
See Till (1995, p.416,419).
- 14-351 *T. baliophylla* Harms.
See Beaman & Judd (1996).
- 14-352 *T. paniculata* (Linnaeus) Linnaeus.
See Beaman & Judd (1996).
- 14-353 *T. grandis* Schlechtendal.
See Beaman & Judd (1996); Cházaro & Mostul, J. Bromeliad Soc. 46:99-102. 1996.
- 14-354 *T. viridiflora* (Beer) Baker.
See Beaman & Judd (1996).
- 14-355 *T. trapeziformis* Mez.
= *Racinaea trapeziformis* (Mez) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.159).
- 14-356 *T. seemannii* (Baker) Mez.
= *Racinaea seemannii* (Baker) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.157).
- 14-357 *T. steyermarkii* L.B.Smith.
= *Racinaea steyermarkii* (L.B.Smith) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.158).
- 14-358 *T. crispa* (Baker) Mez.
= *Racinaea crispa* (Baker) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.153).
- 14-358.1 *T. undulifolia* Mez.
= *Racinaea undulifolia* (Mez) H.Luther, Nordic J. Bot. 14:379. 1994.

- 14-359 **T. tenuispica** André.
= *Racinaea tenuispica* (André) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.158).
- 14-360 **T. pugiformis** L.B.Smith.
= *Racinaea pugiformis* (L.B.Smith) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.156).
- 14-361 **T. gilmartiniae** L.B.Smith.
= *Racinaea gilmartiniae* (L.B.Smith) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.154).
- 14-362 **T. ghiesbreghtii** Baker.
= *Racinaea ghiesbreghtii* (Baker) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.154).
- 14-363 **T. adscendens** L.B.Smith.
= *Racinaea adscendens* (L.B.Smith) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.153).
- 14-364 **T. elegans** L.B.Smith.
= *Racinaea elegans* (L.B.Smith) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.153).
- 14-365 **T. inconspicua** André.
= *Racinaea inconspicua* (André) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.154).
- 14-366 **T. riocreuxii** André.
= *Racinaea riocreuxii* (André) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.156).
- 14-367 **T. lescaillei** C.Wright.
Previously cited as a synonym of *T. spiculosa* Grisebach. See Luther & Sieff (1994).
= *Racinaea spiculosa* (Grisebach) M.A.Spencer & L.B.Smith.
- 14-368 **T. stenoglossa** L.B.Smith.
Previously cited as a synonym of *T. spiculosa* var. *stenoglossa* (L.B.Smith) Gouda. See Luther & Sieff (1994).
= *Racinaea spiculosa* var. *stenoglossa* (L.B.Smith) M.A.Spencer & L.B.Smith.
- 14-369 **T. spiculosa** Grisebach.
= *Racinaea spiculosa* (Grisebach) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.157).
- 14-369b **T. spiculosa** var. *ustulata* (Reitz) L.B.Smith.
= *Racinaea spiculosa* var. *ustulata* (Reitz) M.A. Spencer & L.B. Smith. See Spencer & Smith (1993, p.157).
- 14-369c **T. spiculosa** var. *micrantha* (Baker) L.B.Smith.
= *Racinaea spiculosa* var. *micrantha* (Baker) M.A. Spencer & L.B.Smith. See Spencer & Smith (1993, p.157).
- 14-369d **T. spiculosa** var. *stenoglossa* (L.B.Smith) Gouda.
= *Racinaea spiculosa* var. *stenoglossa* (L.B. Smith) M.A. Spencer & L.B.Smith. See Spencer & Smith (1993, p.157).
- 14-370 **T. rothschuhiana** Mez.
= *Racinaea rothschuhiana* (Mez) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.157).
- 14-371 **T. fawcettii** Mez.
= *Racinaea fawcettii* (Mez) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.154).
- 14-372 **T. homostachya** André.
= *Racinaea homostachya* (André) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.154).
- 14-372.1 **T. almeriae** Rauh.
= *Racinaea almeriae* (Rauh) J.R.Grant, Phytologia 74:429. 1993.
- 14-373 **T. monticola** Mez & Sodiro.
= *Racinaea monticola* (Mez & Sodiro) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.155).

- 14-374 **T. quadripinnata** Mez & Sodiro.
= *Racinaea quadripinnata* (Mez & Sodiro) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.156).
- 14-375 **T. diffusa** L.B.Smith.
= *Racinaea diffusa* (L.B.Smith) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.153).
- 14-376 **T. pendulispica** Mez.
= *Racinaea pendulispica* (Mez) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.156).
- 14-376.1 **T. dielsii** Harms.
= *Racinaea dielsii* (Harms) H.Luther, Nordic J. Bot. 14:379. 1994.
- 14-377 **T. subalata** André.
= *Racinaea subalata* (André) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.158).
- 14-378 **T. sinuosa** L.B.Smith.
= *Racinaea sinuosa* (L.B.Smith) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.157).
- 14-378b **T. sinuosa** var. *quirozii* Gilmartin.
= *Racinaea sinuosa* var. *quirozii* (Gilmartin) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.157).
- 14-378.1 **T. hauggiae** Rauh.
= *Racinaea hauggiae* (Rauh) J.R.Grant, Phytologia 74:429. 1993.
- 14-379 **T. tripinnata** (Baker) Mez.
= *Racinaea tripinnata* (Baker) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.159).
- 14-380 **T. membranacifolia** L.B.Smith.
= *Racinaea membranacifolia* (L.B.Smith) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.155).
- 14-380.1 **T. domingos-martinsis** Rauh.
= *Racinaea domingos-martinsis* (Rauh) J.R.Grant, Phytologia 74:429. 1993.
- 14-381 **T. insularis** Mez.
= *Racinaea insularis* (Mez) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.154).
- 14-381b **T. insularis** var. *latilamina* Gilmartin.
= *Racinaea insularis* var. *latilamina* (Gilmartin) M.A. Spencer & L.B. Smith. See Spencer & Smith (1993, p.154).
- 14-382 **T. multiflora** Benthham.
= *Racinaea multiflora* (Benthham) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.155).
- 14-382b **T. multiflora** var. *decipiens* (André) L.B. Smith.
= *Racinaea multiflora* var. *decipiens* (André) M.A. Spencer & L.B. Smith. See Spencer & Smith (1993, p.155).
- 14-382c **T. multiflora** var. *tomensis* L.B. Smith.
= *Racinaea multiflora* var. *tomensis* (L.B. Smith) M.A. Spencer & L.B. Smith. See Spencer & Smith (1993, p.155).
- 14-382.1 **T. tandapiana** H.Luther.
= *Racinaea tandapiana* (H.Luther) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.158).
- 14-383 **T. pallidoflavens** Mez.
= *Racinaea pallidoflavens* (Mez) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.155).
- 14-384 **T. michelii** Mez.
= *Racinaea michelii* (Mez) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.155).
- 14-385 **T. pardina** L.B.Smith.
= *Racinaea pardina* (L.B.Smith) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.155).

- 14-385.1 **T. nervibractea** Gilmartin & H.Luther.
= *Racinaea nervibractea* (Gilmartin & H.Luther) J.R.Grant, Phytologia 74:429. 1993.
- 14-386 **T. blassii** L.B.Smith.
= *Racinaea blassii* (L.B.Smith) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.153).
- 14-387 **T. cuspidata** L.B.Smith.
= *Racinaea cuspidata* (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:151-60. 1993.
- 14-388 **T. bakeri** L.B.Smith.
= *Racinaea flexuosa* (Baker) M.A.Spencer & L.B.Smith, Phytologia 74:151-60. 1993.
- 14-389 **T. adpressa** André.
= *Racinaea adpressa* (André) J.R.Grant, Novon 4:362-4. 1994.
- 14-389b **T. adpressa** var. *orthiantha* (Standley) L.B.Smith.
= *Racinaea adpressa* ssp. *orthiantha* (Standley) J.R.Grant, Novon 4:362-4. 1994.
- 14-389c **T. adpressa** var. *tonduziana* (Mez) L.B.Smith,
= *Racinaea schumanniana* (Wittmack) J.R.Grant, Novon 4:362-4. 1994.
- 14-389d **T. adpressa** var. *miniata* Rauh.
= *Racinaea miniata* (Rauh) J.R.Grant, Novon 4:362-4. 1994.
- 14-390 **T. caribaea** L.B.Smith.
Previously cited as a synonym of *T. tetrantha* var. *caribaea* (L.B.Smith) Gouda. See Luther & Sieff (1994).
= *Racinaea tetrantha* var. *caribaea* (L.B.Smith) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.158).
- 14-391 **T. tetrantha** Ruiz & Pavon.
= *Racinaea tetrantha* (Ruiz & Pavon) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.158).
- 14-391b **T. tetrantha** var. *aurantiaca* (Grisebach) L.B.Smith.
= *Racinaea tetrantha* var. *aurantiaca* (Grisebach) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.158).
- 14-391c **T. tetrantha** var. *densiflora* (André) L.B.Smith.
= *Racinaea tetrantha* var. *densiflora* (André) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.158).
- 14-391d **T. tetrantha** var. *scarlatina* (André) L.B.Smith.
= *Racinaea tetrantha* var. *scarlatina* (André) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.159).
- 14-391e **T. tetrantha** var. *miniata* (André) L.B.Smith.
= *Racinaea tetrantha* var. *miniata* (André) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.159).
- 14-391f **T. tetrantha** var. *ramosior* L.B.Smith.
= *Racinaea tetrantha* var. *ramosior* (L.B.Smith) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.159).
- 14-391g **T. tetrantha** var. *caribaea* (L.B.Smith) Gouda. = *Racinaea tetrantha* var. *caribaea* (L.B.Smith) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.159).
- 14-391.1 **T. pseudotetrantha** Gilmartin & H.Luther.
= *Racinaea pseudotetrantha* (Gilmartin & H.Luther) J.R.Grant, Phytologia 74:429. 1993.
- 14-392 **T. contorta** Mez & Pittier ex Mez.
= *Racinaea contorta* (Mez & Pittier ex Mez) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.153).
- 14-393 **T. penlandii** L.B.Smith.
= *Racinaea penlandii* (L.B.Smith) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.156).
- 14-393b **T. penlandii** var. *pedunculata* L.B.Smith.
= *Racinaea penlandii* var. *pedunculata* (L.B.Smith) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.156).

- 14-394 **T. jenmanii** Baker.
= *Racinaea jenmanii* (Baker) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.154).
- 14-395 **T. ropalocarpa** André.
= *Racinaea ropalocarpa* (André) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.156).
- 14-396 **T. aerisicola** (Mez) Mez.
= *Racinaea aerisicola* (Mez) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.153).
- 14-397 **T. sanctae-martae** L.B.Smith.
= *Racinaea sanctae-martae* (L.B.Smith) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.157).
- 14-398 **T. commixa** Mez.
= *Racinaea commixa* (Mez) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.153).
- 14-399 **T. parviflora** Ruiz & Pavon.
= *Racinaea parviflora* (Ruiz & Pavon) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.156).
- 14-399b **T. parviflora** var. *expansa* L.B.Smith.
= *Racinaea parviflora* var. *expansa* (L.B.Smith) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.156).
- 14-400 **T. fraseri** Baker.
= *Racinaea fraseri* (Baker) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.154).
- 14-401 **T. laminata** L.B.Smith.
= 114.2
- 14-402 **T. pectinata** André.
= *Racinaea pectinata* (André) M.A.Spencer & L.B.Smith. See Spencer & Smith (1993, p.156).

14.1 RACINAEA M.A.Spencer & L.B.Smith. See Spencer & Smith, Phytologia 74:151-60. 1993. See also Grant, Novon 4:362-4. 1994. *Racinaea* is the former subgenus *Pseudocatopsis* of *Tillandsia*.

- 14.1-0 **R. laminata** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:154. 1993.
= *Tillandsia laminata* L.B.Smith.
- 14.1-1 **R. trapeziformis** (Mez) M.A.Spencer & L.B.Smith, Phytologia 74:159. 1993.
BASIONYM: *Tillandsia trapeziformis* Mez in C. DeCandolle, Monogr. Phan. 9:737. 1896.
- 14.1-2 **R. seemannii** (Baker) M.A.Spencer & L.B.Smith, Phytologia 74:157. 1993.
BASIONYM: *Guzmania seemannii* Baker, Handb. Bromel. 153. 1889.
SYN.: *Tillandsia seemannii* (Baker) Mez.
- 14.1-3 **R. steyermarkii** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:158. 1993.
BASIONYM: *Tillandsia steyermarkii* L.B.Smith, Phytologia 28:38. 1974.
- 14.1-4 **R. crispa** (Baker) M.A.Spencer & L.B.Smith, Phytologia 74:153. 1993.
BASIONYM: *Guzmania crispa* Baker, J. Bot. London 25:173. 1887.
SYN.: *Tillandsia crispa* (Baker) Mez.
- 14.1-5 **R. undulifolia** (Mez) H.Luther, Nordic J. Bot. 14:379. 1994.
BASIONYM: *Tillandsia undulifolia* Mez in C.DeCandolle, Monogr. Phan. 9:740. 1896.
- 14.1-6 **R. tenuispica** (André) M.A.Spencer & L.B.Smith, Phytologia 74:158. 1993.
BASIONYM: *Tillandsia tenuispica* André, Enum. Bromel. 7. 13 Dec 1888; Rev. Hortic. 60:567. 16 Dec 1888.
- 14.1-7 **R. pugiformis** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:156. 1993.
BASIONYM: *Tillandsia pugiformis* L.B.Smith, Contr. Gray Herb. 89:13,24. 1930.
- 14.1-8 **R. gilmartiniae** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:154. 1993.
BASIONYM: *Tillandsia gilmartiniae* L.B.Smith, Phytologia 9:247. 1963.
- 14.1-9 **R. ghiesbreghtii** (Baker) M.A.Spencer & L.B.Smith, Phytologia 74:154. 1993.
BASIONYM: *Tillandsia ghiesbreghtii* Baker, Handb. Bromel. 206. 1889.

- 14.1-10 **R. adscendens** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:153. 1993.
BASIONYM: *Tillandsia adscendens* L.B.Smith, North Amer. Fl. 19:122. 1938.
- 14.1-11 **R. elegans** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:153. 1993.
BASIONYM: *Tillandsia elegans* L.B.Smith, Contr. U.S. Natl. Herb. 29:528. 1954.
- 14.1-12 **R. inconspicua** (André) M.A.Spencer & L.B.Smith, Phytologia 74:154. 1993.
BASIONYM: *Tillandsia inconspicua* André, Enum. Bromel. 8. 13 Dec 1888. Rev. Hortic. 60:568. 16 Dec. 1888.
- 14.1-13 **R. riocreuxii** (André) M.A.Spencer & L.B.Smith, Phytologia 74:156. 1993.
BASIONYM: *Tillandsia riocreuxii* André, Enum. Bromel. 7. 13 Dec 1888; Rev. Hortic. 60:567. 16 Dec 1888.
- 14.1-14 **R. lescaillei** (C.Wright) M.A.Spencer & L.B.Smith, Phytologia 74:155. 1993.
= *Racinaea spiculosa* (Grisebach) M.A.Spencer & L.B.Smith.
- 14.1-15 **R. spiculosa** (Grisebach) M.A.Spencer & L.B.Smith, Phytologia 74:157. 1993.
BASIONYM: *Tillandsia spiculosa* Grisebach, Nachr. Ges. Wiss. Goett. "1864":17. 1865.
SYN.: *Racinaea lescaillei* (C.Wright) M.A.Spencer & L.B.Smith.
- 14.1-15b **R. spiculosa** var. *ustulata* (Reitz) M.A.Spencer & L.B.Smith, Phytologia 74:157. 1993.
BASIONYM: *Tillandsia triticea* var. *ustulata* Reitz, Sellowia 14:108. 1962.
- 14.1-15c **R. spiculosa** var. *micrantha* (Baker) M.A.Spencer & L.B.Smith, Phytologia 74:157. 1993.
BASIONYM: *Tillandsia micrantha* Baker, J. Bot. London 25:303. 1887.
SYN.: *Tillandsia spiculosa* var. *micrantha* (Baker) L.B.Smith.
- 14.1-15d **R. spiculosa** var. *stenoglossa* (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:157. 1993.
BASIONYM: *Tillandsia stenoglossa* L.B.Smith, Fieldiana Bot. 28:151. 1951.
SYN.: *Tillandsia spiculosa* var. *stenoglossa* (L.B.Smith) Gouda.
- 14.1-16 **R. rothschuhiana** (Mez) M.A.Spencer & L.B.Smith, Phytologia 74:157. 1993.
BASIONYM: *Tillandsia rothschuhiana* Mez in C. DeCandolle, Monogr. Phan. 9:645. 1896.
- 14.1-17 **R. fawcettii** (Mez) M.A.Spencer & L.B.Smith, Phytologia 74:154. 1993.
BASIONYM: *Tillandsia fawcettii* Mez in C.DeCandolle, Monogr. Phan. 9:752. 1896.
- 14.1-18 **R. homostachya** (André) M.A.Spencer & L.B.Smith, Phytologia 74:154. 1993.
BASIONYM: *Tillandsia homostachya* André, Enum. Bromel. 7. 13 Dec 1888. Rev. Hortic. 60:567. 16 Dec. 1888.
- 14.1-19 **R. almeriae** (Rauh) J.R.Grant, Phytologia 74:429-30. 1993.
BASIONYM: *Tillandsia almeriae* Rauh, Trop. Subtrop. Pflanzenwelt 58:19-21. 1986.
- 14.1-20 **R. monticola** (Mez & Sodiro) M.A.Spencer & L.B.Smith, Phytologia 74:155. 1993.
BASIONYM: *Tillandsia monticola* Mez & Sodiro, Bull. Herb. Boissier II. 4:1135. 1904.
- 14.1-21 **R. quadripinnata** (Mez & Sodiro) M.A.Spencer & L.B.Smith, Phytologia 74:156. 1993.
BASIONYM: *Tillandsia quadripinnata* Mez & Sodiro, Bull. Herb. Boissier II. 5:105. 1905.
- 14.1-22 **R. diffusa** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:153. 1993.
BASIONYM: *Tillandsia diffusa* L.B.Smith, Phytologia 9:252. 1963.
- 14.1-23 **R. pendulispica** (Mez) M.A.Spencer & L.B.Smith, Phytologia 74:156. 1993.
BASIONYM: *Tillandsia pendulispica* Mez in C.DeCandolle, Monogr. Phan. 9:745. 1896.
- 14.1-24 **R. dielsii** (Harms) H.Luther, Nordic J. Bot. 14:379. 1994.
BASIONYM: *Tillandsia dielsii* Harms, Notizbl. Bot. Gard. Berlin. 12:589. 1925.
- 14.1-25 **R. subalata** (André) M.A.Spencer & L.B.Smith, Phytologia 74:158. 1993.
BASIONYM: *Tillandsia subalata* André, Enum. Bromel. 7. 13 Dec 1888; Rev. Hortic. 60:567. 16 Dec 1888.
- 14.1-26 **R. sinuosa** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:157. 1993.
BASIONYM: *Tillandsia sinuosa* L.B.Smith, Contr. Gray Herb. 89:14. 1930.
SYN.: *Racinaea sinuosa* var. *quirozii* (Gilmartin) M.A.Spencer & L.B.Smith.

- 14.1-26b **R. sinuosa** var. *quirozii* (Gilmartin) M.A.Spencer & L.B.Smith, Phytologia 74:157. 1993.
BASIONYM: *Tillandsia sinuosa* var. *quirozii* Gilmartin, Phytologia 16:162. 1968.
= *Racinaea sinuosa* (L.B.Smith) M.A.Spencer & L.B.Smith
- 14.1-27 **R. hauggiae** (Rauh) J.R.Grant, Phytologia 74:429-30. 1993.
BASIONYM: *Tillandsia hauggiae* Rauh, Trop. Subtrop. Pflanzenwelt 52:46-53. 1985.
- 14.1-28 **R. tripinnata** (Baker) M.A.Spencer & L.B.Smith, Phytologia 74:159. 1993.
BASIONYM: *Catopsis tripinnata* Baker, Handb. Bromel. 156. 1889.
SYN.: *Tillandsia tripinnata* (Baker) Mez.
- 14.1-29 **R. membranacifolia** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:155. 1993.
BASIONYM: *Tillandsia membranacifolia* L.B.Smith, Contr. Gray Herb. 89:11,32. 1930.
- 14.1-30 **R. domingos-martinsii** (Rauh) J.R.Grant, Phytologia 74:429-30. 1993.
BASIONYM: *Tillandsia domingos-martinsii* Rauh, Trop. Subtrop. Pflanzenwelt 79:17-8. 1991.
- 14.1-31 **R. insularis** (Mez) M.A.Spencer & L.B.Smith, Phytologia 74:154. 1993.
BASIONYM: *Tillandsia insularis* Mez in C.DeCandolle, Monogr. Phan. 9:756. 1896.
- 14.1-31b **R. insularis** var. *latilamina* (Gilmartin) M.A.Spencer & L.B.Smith, Phytologia 74:154. 1993.
BASIONYM: *Tillandsia insularis* var. *latilamina* Gilmartin, Phytologia 16:163. 1968.
- 14.1-32 **R. multiflora** (Benth) M.A.Spencer & L.B.Smith, Phytologia 74:155. 1993.
BASIONYM: *Tillandsia multiflora* Benth, Bot. voy. Sulph. 174. 1844.
- 14.1-32b **R. multiflora** var. *decipiens* (André) M.A.Spencer & L.B.Smith, Phytologia 74:155. 1993.
BASIONYM: *Tillandsia decipiens* André, Enum. Bromel. 13 Dec. 1888; Rev. Hortic. 60:567. 16 Dec. 1888.
- 14.1-32c **R. multiflora** var. *tomensis* (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:155. 1993.
BASIONYM: *Tillandsia multiflora* var. *tomensis* L.B.Smith, Contr. Gray Herb. 89:13,35. 1930.
- 14.1-33 **R. tandapiana** (H.Luther) M.A.Spencer & L.B.Smith, Phytologia 74:158. 1993.
BASIONYM: *Tillandsia tandapiana* H.Luther, Selbyana 7:91-2. 1982.
- 14.1-34 **R. pallidoflavens** (Mez) M.A.Spencer & L.B.Smith, Phytologia 74:155. 1993.
BASIONYM: *Tillandsia pallidoflavens* Mez, Repert. Nov. Sp. 3:36. 1906.
- 14.1-35 **R. michelii** (Mez) M.A.Spencer & L.B.Smith, Phytologia 74:155. 1993.
BASIONYM: *Tillandsia michelii* Mez, Bull. Herb. Boissier II. 3:146. 1903.
- 14.1-36 **R. pardina** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:155. 1993.
BASIONYM: *Tillandsia pardina* L.B.Smith, Lilloa 14:98. 1948.
- 14.1-37 **R. nervibractea** (Gilmartin & H.Luther) J.R.Grant, Phytologia 74:429-30. 1993.
BASIONYM: *Tillandsia nervibractea* Gilmartin & H.Luther, J. Bromeliad Soc. 40:250-1. 1990.
- 14.1-38 **R. blassii** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:153. 1993.
BASIONYM: *Tillandsia blassii* L.B.Smith, Phytologia 22:85. 1971.
- 14.1-39 **R. kalliantha** J.R.Grant, Phytologia 76:286-7. 1994. Peru:Piura. [Holo:SEL].
- 14.1-40 **R. cuspidata** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:153. 1993.
BASIONYM: *Tillandsia cuspidata* L.B.Smith, Phytologia 9:252. 1963.
- 14.1-41 **R. adpressa** (André) J.R.Grant, Novon 4:362-4. 1994.
BASIONYM: *Tillandsia adpressa* André, Enum. Bromel. 6. 13 Dec 1888. Rev. Hortic. 60:566. 16 Dec 1888.
- 14.1-41(2) **R. adpressa** ssp. *orthiantha* (Standley) J.R.Grant, Novon 4:362-4. 1994.
BASIONYM: *Tillandsia orthiantha* Standley, J. Wash. Acad. 17:248. 1927.
SYN.: *Tillandsia adpressa* var. *orthiantha* (Standley) L.B.Smith.
- 14.1-42 **R. flexuosa** (Baker) M.A.Spencer & L.B.Smith, Phytologia 74:154. 1993.
BASIONYM: *Catopsis flexuosa* Baker, J. Bot. London 25:175. 1887.
SYN.: *Tillandsia bakeri* L.B.Smith.
- 14.1-43 **R. lyman-smithiana** J.R.Grant, Phytologia 76:288-9. 1994. Peru:Piura. [Holo:US].
- 14.1-44 **R. tetrantha** (Ruiz & Pavon) M.A.Spencer & L.B.Smith, Phytologia 74:158. 1993.
BASIONYM: *Tillandsia tetrantha* Ruiz & Pavon, Fl. Peruv. 3:39. 1802.

- 14.1-44b **R. tetrantha** var. **aurantiaca** (Grisebach) M.A.Spencer & L.B.Smith, Phytologia 74: 158. 1993.
BASIONYM: *Tillandsia aurantiaca* Grisebach, Nachr. Ges. Wiss. Goett. "1864":16. 1865.
SYN.: *Tillandsia tetrantha* var. *aurantiaca* (Grisebach) L.B.Smith.
- 14.1-44c **R. tetrantha** var. **densiflora** (André) M.A.Spencer & L.B.Smith, Phytologia 74:158. 1993.
BASIONYM: *Tillandsia aurantiaca* var. *densiflora* André, Enum. Bromel. 7. 13 Dec 1888; Rev. Hortic. 60:567. 16 Dec 1888.
SYN.: *Tillandsia tetrantha* var. *densiflora* (André) L.B.Smith.
- 14.1-44d **R. tetrantha** var. **scarlatina** (André) M.A.Spencer & L.B.Smith, Phytologia 74:159. 1993.
BASIONYM: *Tillandsia aurantiaca* var. *scarlatina* André, Enum. Bromel. 7. 13 Dec 1888; Rev. Hortic. 60:567. 16 Dec 1888.
SYN.: *Tillandsia tetrantha* var. *scarlatina* (André) L.B.Smith.
- 14.1-44e **R. tetrantha** var. **miniata** (André) M.A.Spencer & L.B.Smith, Phytologia 74:159. 1993.
BASIONYM: *Tillandsia aurantiaca* var. *miniata* André, Enum. Bromel. 7. 13 Dec 1888; Rev. Hortic. 60:567. 16 Dec 1888.
SYN.: *Tillandsia tetrantha* var. *miniata* (André) L.B.Smith.
- 14.1-44f **R. tetrantha** var. **ramosior** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74: 159. 1993.
BASIONYM: *Tillandsia tetrantha* var. *ramosior* L.B.Smith, Phytologia 13:147. 1966.
- 14.1-44g **R. tetrantha** var. **caribaea** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74: 158. 1993.
BASIONYM: *Tillandsia caribaea* L.B.Smith, Proc. Amer. Acad. Arts 70:155. 1935.
SYN.: *Tillandsia tetrantha* var. *caribaea* (L.B.Smith) Gouda.
- 14.1-45 **R. miniata** (Rauh) J.R.Grant, Novon, 4:362-4. 1994.
BASIONYM: *Tillandsia adpressa* var. *miniata* Rauh, Trop. Subtrop. Pflanzenwelt 13: 5-16. 1974.
- 14.1-46 **R. schumanniana** (Wittmack) J.R.Grant, Novon 4:362-4. 1994.
BASIONYM: *Catopsis schumanniana* Wittmack, Bot. Jahrb. 11:70. 1890.
SYN.: *Tillandsia adpressa* var. *tonduziana* (Mez) L.B.Smith.
- 14.1-47 **R. pseudotetrantha** (Gilmartin & H.Luther) J.R.Grant, Phytologia 74:429-30. 1993.
BASIONYM: *Tillandsia pseudotetrantha* Gilmartin & H.Luther, J. Bromeliad Soc. 40: 250-1. 1990.
- 14.1-48 **R. contorta** (Mez) M.A.Spencer & L.B.Smith, Phytologia 74:153. 1993.
BASIONYM: *Tillandsia contorta* Mez & Pittier ex Mez, Bull. Herb. Boissier II. 3:224. 1903.
- 14.1-49 **R. penlandii** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:156. 1993.
BASIONYM: *Tillandsia penlandii* L.B.Smith, Lilloa 6:384. 1941.
- 14.1-49b **R. penlandii** var. **pedunculata** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:156. 1993.
BASIONYM: *Tillandsia penlandii* var. *pedunculata* L.B.Smith, Lilloa 6:385. 1941.
- 14.1-50 **R. jenmanii** (Baker) M.A.Spencer & L.B.Smith, Phytologia 74:154. 1993.
BASIONYM: *Tillandsia jenmanii* Baker, J. Bot. London 25:345. 1887.
- 14.1-51 **R. ropalocarpa** (André) M.A.Spencer & L.B.Smith, Phytologia 74:156. 1993.
BASIONYM: *Tillandsia ropalocarpa* André, Enum. Bromel. 6. 13 Dec 1888; Rev. Hortic. 60:566. 16 Dec 1888.
- 14.1-52 **R. aerisincola** (Mez) M.A.Spencer & L.B.Smith, Phytologia 74:157. 1993.
BASIONYM: *Vriesea aerisincola* Mez in Martius, Fl. Bras. 3:555. 1894.
SYN.: *Tillandsia aerisincola* (Mez) Mez.
- 14.1-53 **R. sanctae-martae** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74:157. 1993.
BASIONYM: *Tillandsia sanctae-martae* L.B.Smith, Phytologia 5:396. 1956.
- 14.1-54 **R. commixa** (Mez) M.A.Spencer & L.B.Smith, Phytologia 74:153. 1993.
BASIONYM: *Tillandsia commixa* Mez, Repert. Sp. Nov. 16:75. 1919.
- 14.1-55 **R. parviflora** (Ruiz & Pavon) M.A.Spencer & L.B.Smith, Phytologia 74:156. 1993.
BASIONYM: *Tillandsia parviflora* Ruiz & Pavon, Fl. Peruv. 3:41. 1802.

- 14.1-55b **R. parviflora** var. **expansa** (L.B.Smith) M.A.Spencer & L.B.Smith, Phytologia 74: 156. 1993.
BASIONYM: *Tillandsia parviflora* var. *expansa* L.B.Smith, Phytologia 22:87. 1971.
- 14.1-56 **R. euryelytra** J.R.Grant, Phytologia 76:284-5. 1994. Ecuador:Loja. [Holo:SEL].
- 14.1-57 **R. fraseri** (Baker) M.A.Spencer & L.B.Smith, Phytologia 74:154. 1993.
BASIONYM: *Tillandsia fraseri* Baker, Handb. Bromel. 187. 1889.
- 14.1-58 **R. pectinata** (André) M.A.Spencer & L.B.Smith, Phytologia 74:156. 1993.
BASIONYM: *Tillandsia pectinata* André, Enum. Bromel. 7. 13 Dec 1888; Rev. Hortic. 60:567. 16 Dec 1888.
- 15 **VRIESEA** Lindley. See Fereira da Costa (1993); Leme, Bromélia 2(4):24-8. 1995; Sazima, Buzato & Sazima, Bromélia 2(4):29-37. 1995; Grant, Taxon 44:693. 1996. Although a number of taxa described in *Vriesea* s.l. have been transferred to *Tillandsia* s.s. (Grant, 1993 and 1996), the senior author feels it is premature to accept those changes; however we note them under both *Tillandsia* and *Vriesea*.
- 15-0 **V. pleiosticha** (Grisebach) Gouda, Flora of the Guianas, Series A, Pat. 189:82-5. 1987.
= *Mezobromelia pleiosticha* (Grisebach) J.Utley & H.Luther, Ann. Missouri Bot. Gard. 78:270. 1991.
- 15-3 **V. cowellii** (Mez & Britton) L.B.Smith.
= *Werauhia cowellii* (Mez & N.L.Britton) J.R.Grant. See Grant (1995a, p.40).
- 15-14 **V. pedicellata** (Mez & Wercklé) L.B.Smith & Pittendrigh.
= *Werauhia pedicellata* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.47).
- 15-16 **V. hospitalis** (L.B.Smith) L.B.Smith.
= *Mezobromelia hospitalis* (L.B.Smith) J.R.Grant, Phytologia 74:428-9. 1993.
- 15-17 **V. magdalenae** L.B.Smith.
= *Mezobromelia magdalenae* (L.B.Smith) J.R.Grant, Phytologia 74:428-30. 1993.
- 15-18 **V. umbrosa** L.B.Smith.
= *Werauhia umbrosa* (L.B.Smith) J.R.Grant. See Grant (1995a, p.48).
- 15-18.1 **V. greenbergii** J.Utley.
= *Werauhia greenbergii* (J. Utley) J.R.Grant. See Grant (1995a, p.42).
- 15-19 **V. ranifera** L.B.Smith.
Previously cited as a synonym of *V. latissima* (Mez & Wercklé) L.B.Smith. See Luther & Sieff (1994).
= *Werauhia latissima* (Mez & Wercklé) J.R.Grant. See Grant (1993a, p.43)
- 15-20.1 **V. altomacaensis** A.Costa, J. Bromeliad Soc. 44:159-62. 1994. Brazil:Rio de Janeiro. [Holo:RB].
- 15-20.2 **V. bahiana** Leme, J. Bromeliad Soc. 45:150-51. 1995. Brazil:Bahia. [Holo:HB].
- 15-23 **V. haematina** L.B.Smith.
= *V. triligulata* Mez. See Costa, Bromélia 2(4):3-7. 1995.
- 15-25 **V. killipiana** L.B.Smith.
Previously cited as a synonym of *V. kupperiana* Suessenguth. See Luther & Sieff (1994).
= *Werauhia kupperiana* (Suessenguth) J.R.Grant. See Grant (1993a, p.32).
- 15-28 **V. latissima** (Mez & Wercklé) L.B.Smith & Pittendrigh.
= *Werauhia latissima* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.43).
- 15-29 **V. turbinata** (Mez & Wercklé) L.B.Smith & Pittendrigh.
Previously cited as a synonym of *V. pedicellata* (Mez & Wercklé) L.B.Smith & Pittendrigh. See Luther & Sieff (1994).
= *Werauhia pedicellata* (Mez & Wercklé) J.R.Grant. See Grant (1993a, p.47).
- 15-31 **V. triligulata** Mez.
See Costa, Bromélia 2(4):3-7. 1995.
- 15-35 **V. heliconioides** (Humboldt, Bonpland & Kunth) Hooker ex Walpers.
SYN.: *V. heliconioides* var. *polysticha* L.B. Smith.
- 15-35b **V. heliconioides** var. **polysticha** L.B.Smith.
= *V. heliconioides* Hooker ex Walpers. See Utley (1994, p.127).

- 15-38 **V. pycnantha** L.B.Smith.
SYN.: *V. ovandensis* Matuda.
= *Werauhia pycnantha* (L.B.Smith) J.R.Grant, Phytologia 78:122. 1995.
- 15-39 **V. rugosa** Mez & Wercklé.
Previously considered a synonym of *Werauhia gladioliflora* (H.Wendland) J.R.Grant.
See Grant (1995a, p.31-2).
= *Werauhia rugosa* (Mez & Wercklé) J.R.Grant. See Grant (1996).
- 15-40 **V. gladioliflora** H.Wendland.
= *Werauhia gladioliflora* (H.Wendland) J.R.Grant. See Grant (1995a, p.31).
- 15-41 **V. macrantha** Mez & Wercklé.
= *Werauhia macrantha* (Mez & Wercklé) J.R.Grant. See Grant (1995b, p.121); Grant (1995a, p.32); Utley (1994, p.129).
- 15-42 **V. ovandensis** Matuda.
= *Werauhia pycnantha* (L.B.Smith) J.R.Grant. See Grant (1995b, p.122); Grant (1995a, p.33); Utley (1994, p.131).
- 15-43 **V. acuminata** Mez & Wercklé.
= *Werauhia acuminata* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.30).
- 15-46 **V. brachyphylla** Mez & Wercklé.
= *Werauhia viridiflora* (Regel) J.R.Grant. See (Grant 1995a, p.38); Utley (1994, p.133).
- 15-47 **V. brunei** Mez & Wercklé.
= *Werauhia brunei* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.31).
- 15-48 **V. apiculata** L.B.Smith.
= *Werauhia apiculata* (L.B.Smith) J.R.Grant. See Grant (1995a, p.30).
- 15-49 **V. lancifolia** (Baker) L.B.Smith.
See J.R.Grant in Bromélia 3(3):35-9. 1996.
- 15-52.1 **V. sazimae** Leme, Bromélia 2(4):26-8. 1995. Brazil:Sao Paulo. [Holo:UEC].
- 15-55.2 **V. minuta** Leme, Bromélia 2(4):24-6. 1995. Brazil:Bahia. [Holo:HB].
- 15-56b **V. fosteriana** var. *seideliana* Reitz, Sellowia 17:41-4. 1965. Brazil:Espirito Santo. [Holo:HBR].
This is the cultivar Red Chestnut common in horticulture.
- 15-59b **V. bituminosa** var. *minor* L.B.Smith.
= *V. minor* (L.B.Smith) Leme, J. Bromeliad Soc. 46:244-6. 1996.
- 15-59.1 **V. minor** (L.B.Smith) Leme, J. Bromeliad Soc. 46:244-6. 1996.
BASIONYM.: *V. bituminosa* var. *minor* L.B.Smith, Phytologia 16:79. 1968.
- 15-61 **V. nutans** L.B.Smith.
= *Werauhia viridiflora* (Regel) J.R.Grant. See Grant (1995a, p.38).
- 15-66 **V. triflora** L.B.Smith & Pittendrigh.
= *Werauhia panniculata* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.45).
- 15-67 **V. discolor** (Mez & Wercklé) L.B.Smith & Pittendrigh.
Previously cited as a synonym of *V. latissima* (Mez & Wercklé) L.B.Smith & Pittendrigh. See Luther & Sieff (1994).
= *Werauhia latissima* (Mez & Wercklé) J.R.Grant. See Grant (1993a, p.43).
- 15-69 **V. amazonica** (Baker) Mez.
= *Werauhia gigantea* (Martius ex Schultes f.) J.R.Grant. See Grant (1995a, p.31).
- 15-71 **V. ringens** (Grisebach) Harms.
= *Werauhia ringens* (Grisebach) J.R.Grant. See Grant (1995a, p.35).
- 15-71.1 **V. naundorffiae** Rauh.
Previously cited as a synonym of *V. vittata* (Mez & Wercklé) L.B.Smith & Pittendrigh. See Luther & Sieff (1994).
= *Werauhia vittata* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.38).
- 15-74(2) **V. ruschii** ssp. *leonii* Leme, Pabstia IV(1):2-3,8. 1993. Brazil:Minas Gerais. [Holo:GFJP; Iso:HB].
- 15-77 **V. cornuscervi** Rohweder.
= *Werauhia werckleana* (Mez) J.R.Grant. See Grant (1995b, p.122); Grant (1995a, p.31); Utley (1994, p.134).
- 15-79 **V. breedloveana** L.B.Smith.
= *Werauhia werckleana* (Mez) J.R.Grant. See Grant (1995b, p.122); Grant (1995a, p.31); Utley (1994, p.134).

- 15-80 **V. werckleana** Mez.
= *Werauhia werckleana* (Mez) J.R.Grant. See Grant (1995a, p.38-9).
- 15-81 **V. kupperiana** Suessenguth.
= *Werauhia kupperiana* (Suessenguth) J.R.Grant. See Grant (1995a, p.32).
- 15-82 **V. confusa** L.B.Smith,
= *Werauhia kupperiana* (Suessenguth) J.R.Grant. See Grant (1995a, p.32).
- 15-83 **V. hieroglyphica** (Carrière) Morren.
See Mercier & Kerbaudy, J. Bromeliad Soc. 44:120-4. 1994.
- 15-85 **V. sanguinolenta** Cogniaux & Marchal.
= *Werauhia sanguinolenta* (Cogniaux & Marchal) J.R.Grant. See Grant (1995a, p.35).
- 15-85.1 **V. tarmaensis** Rauh.
= *Werauhia tarmaensis* (Rauh) J.R.Grant. See Grant (1995a, p.35).
- 15-90 **V. hydrophora** Ule.
See Leme, J. Bromeliad Soc. 45:247-53. 1995.
- 15-91 **V. pastuchoffiana** Glaziou ex Mez.
See Leme, J. Bromeliad Soc. 45:247-53. 1995.
- 15-93 **V. pectinata** L.B.Smith.
= *Werauhia pectinata* (L.B.Smith) J.R.Grant. See Grant (1995a, p.33).
- 15-95 **V. woodsoniana** L.B.Smith.
= *Werauhia woodsoniana* (L.B.Smith) J.R.Grant. See Grant (1995a, p.39).
- 15-96 **V. pachychlamys** Mez.
Previously cited as a synonym of *V. gladiolifera* (H.Wendland) Antoine. See Luther & Sieff (1994).
= *Werauhia gladiolifera* (H.Wendland) J.R.Grant. See Grant (1995a, p.31).
- 15-97 **V. burgeri** L.B.Smith.
= *Werauhia burgeri* (L.B.Smith) J.R.Grant. See Grant (1995b, p.121.); Grant (1995a, p.32); Utley (1994, p.125).
- 15-98 **V. tonduziana** L.B.Smith.
= *Werauhia tonduziana* (L.B.Smith) J.R.Grant. See Grant (1995a, p.35).
- 15-99 **V. van-hyningii** L.B.Smith.
= *Werauhia van-hyningii* (L.B.Smith) J.R.Grant. See Grant (1995a, p.35).
- 15-100.2 **V. ochracea** Rauh & E.Gross.
= *Werauhia ochracea* (Rauh & E.Gross) J.R.Grant. See Grant (1995a, p.33).
- 15-100.3 **V. amadoi** Leme, Selbyana 16(1):111-12. 1995. Brazil:Espirito Santo. [Holo:HB].
- 15-101 **V. bicolor** L.B.Smith.
= *Werauhia bicolor* (L.B.Smith) J.R.Grant. See Grant (1995a, p.30).
- 15-102 **V. guadelupensis** (Baker) Mez.
= *Werauhia guadelupensis* (Baker) J.R.Grant. See Grant (1996, p.255).
- 15-103 **V. subsecunda** Wittmack.
= *Werauhia subsecunda* (Wittmack) J.R.Grant. See Grant (1995a, p.35).
- 15-104 **V. pittieri** Mez.
= *Werauhia pittieri* (Mez) J.R.Grant. See Grant (1995a, p.33).
- 15-105 **V. ampla** L.B.Smith.
= *Werauhia ampla* L.B.Smith) J.R.Grant. See Grant (1995a, p.30).
- 15-106 **V. viridiflora** (Regel) Wittmack ex Mez.
= *Werauhia viridiflora* (Regel) J.R.Grant. See Grant (1995a, p.38).
- 15-107 **V. marnier-lapostollei** L.B.Smith.
= *Werauhia marnier-lapostollei* (L.B.Smith) J.R.Grant. See Grant (1995a, p.33).
- 15-108 **V. haplostachya** (C.Wright ex Sauvalle) L.B.Smith.
= *Werauhia haplostachya* (C.Wright ex Sauvalle) J.R.Grant. See Grant (1996, p.255).
- 15-110 **V. chiapensis** Matuda.
= *Werauhia pectinata* (L.B.Smith) J.R.Grant. See Grant (1995b, p.121); Grant (1995a, p.31); Utley (1994, p.131).
- 15-111 **V. graminifolia** Mez & Wercklé.
= *Werauhia graminifolia* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.32).
- 15-116 **V. platzmannii** E. Morren.
See J.R.Grant, Bromélia 3(3):35-9. 1996.

- 15-117 *V. verrucosa* L.B.Smith.
= *Werauhia verrucosa* (L.B.Smith) J.R.Grant. See Grant (1995a, p.38).
- 15-118 *V. schippii* L.B.Smith.
Previously cited as a synonym of *V. vittata* (Mez & Wercklé) L.B.Smith & Pittendrigh. See Luther & Sieff (1994).
= *Werauhia vittata* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.38).
- 15-118.1 *V. panamaensis* E.Gross & Rauh.
= *Werauhia panamaensis* (E.Gross & Rauh) J.R.Grant. See Grant (1995a, p.33).
- 15-119 *V. macrochlamys* Mez & Wercklé.
= *Werauhia gladioliflora* (H.Wendland) J.R.Grant. See Grant (1995a, p.32).
- 15-121 *V. broadwayi* L.B.Smith.
= *Werauhia broadwayi* (L.B.Smith) J.R.Grant. See Grant (1996, p.255).
- 15-124 *V. dodsonii* L.B.Smith.
= *Werauhia apiculata* (L.B.Smith) J.R.Grant. See Grant (1995a, p.30).
- 15-126 *V. diffusa* L.B.Smith & Pittendrigh.
= *Werauhia laxa* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.43).
- 15-126.2 *V. diantha* H.Luther.
= *Werauhia diantha* (H.Luther) J.R.Grant. See Grant (1995a, p.40).
- 15-127 *V. capituligera* (Grisebach) L.B.Smith & Pittendrigh.
= *Mezobromelia capituligera* (Grisebach) J.R.Grant, Phytologia 74:428-30. 1993.
- 15-127b *V. capituligera* var. *lutea* Steyermark.
Previously cited as a synonym of *V. capituligera* (Grisebach) L.B.Smith. See Luther & Sieff (1994).
= *Mezobromelia capituligera* (Grisebach) J.R.Grant, Phytologia 74:428. 1993.
- 15-128 *V. crassiflora* (Mez & Wercklé) Uteley.
Previously cited as a synonym of *V. ororiensis* (Mez) L.B.Smith & Pittendrigh. See Luther & Sieff (1994).
= *Werauhia ororiensis* (Mez) J.R.Grant. See Grant (1995a, p.44).
- 15-129 *V. hainesiorum* L.B.Smith.
= *Werauhia hainesiorum* (L.B.Smith) J.R.Grant. See Grant (1995a, p.42).
- 15-129.1 *V. uxoris* J.Uteley.
= *Werauhia uxoris* (J.Uteley) J.R.Grant. See Grant (1995a, p.48).
- 15-129.2 *V. viatoris* J.Uteley.
= *Werauhia viatoris* (J.Uteley) J.R.Grant. See Grant (1995a, p.48).
- 15-130 *V. cylindracea* (Suessenguth & Geopinger) L.B.Smith & Pittendrigh.
Previously cited as a synonym of *V. ororiensis* (Mez) L.B.Smith & Pittendrigh. See Luther & Sieff (1994).
= *Werauhia ororiensis* (Mez) J.R.Grant. See Grant (1995a, p.45).
- 15-131 *V. leptopoda* L.B.Smith & Pittendrigh.
= *Werauhia rubra* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.47-8).
- 15-132 *V. bracteosa* (Mez & Wercklé) L.B.Smith & Pittendrigh.
= *Werauhia bracteosa* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.40).
- 15-132.1 *V. nocturna* Matuda.
= *Werauhia hygrometrica* (André) J.R.Grant. See Grant (1995a, p.42).
- 15-133 *V. nephrolepis* L.B.Smith & Pittendrigh.
= *Werauhia nephrolepis* (L.B.Smith & Pittendrigh) J.R.Grant. See Grant (1995a, p.44).
- 15-133.1 *V. lyman-smithii* J.Uteley.
= *Werauhia lyman-smithii* (J.Uteley) J.R.Grant. See Grant (1995a, p.43).
- 15-134 *V. montana* (L.B.Smith) L.B.Smith & Pittendrigh.
Previously cited as a synonym of *V. nephrolepis* L.B.Smith & Pittendrigh. See Luther & Sieff (1994).
= *Werauhia nephrolepis* (L.B.Smith & Pittendrigh) J.R.Grant. See Grant (1995a, p.44).
- 15-134.1 *V. dressleri* Rauh.
= *Werauhia dressleri* (Rauh) J.R.Grant. See Grant (1995a, p.42).
- 15-134.2 *V. patzeltii* Rauh.
= *Werauhia greenbergii* (J.Uteley) J.R.Grant. See Grant (1995a, p.42).

- 15-134.2b *V. patzeltii* var. *panamaensis* Rauh.
= *Werauhia greenbergii* (J.Uteley) J.R.Grant. See Grant (1995b, p.121); Grant (1995a, p.47); Uteley (1994, p.127).
- 15-135 *V. violascens* (Mez & Wercklé) L.B.Smith & Pittendrigh.
Previously cited as a synonym of *V. pedicellata* (Mez & Wercklé) L.B.Smith. See Luther & Sieff (1994).
= *Werauhia pedicellata* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.47).
- 15-136 *V. leucophylla* L.B.Smith
= *Werauhia leucophylla* (L.B.Smith) J.R.Grant. See Grant (1995a, p.43).
- 15-136b *V. leucophylla* var. *subtessellata* J.Uteley.
Previously cited as a synonym of *V. leucophylla* L.B.Smith. See Luther & Sieff (1994).
= *Werauhia leucophylla* (L.B.Smith) J.R.Grant. See Grant (1995a, p.43).
- 15-138 *V. comata* (Mez & Wercklé) L.B.Smith & Pittendrigh.
= *Werauhia comata* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.40).
- 15-139 *V. antillana* L.B.Smith & Pittendrigh.
= *Werauhia urbaniana* (Mez) J.R.Grant. See Grant (1996, p.255).
- 15-140 *V. johnstonii* (Mez) L.B.Smith & Pittendrigh.
= *Werauhia hygrometrica* (André) J.R.Grant. See Grant (1995a, p.42).
- 15-141 *V. notata* L.B.Smith & Pittendrigh.
= *Werauhia notata* (L.B.Smith & Pittendrigh) J.R.Grant. See Grant (1995a, p.44).
- 15-141.1 *V. kathyae* J.Uteley.
= *Werauhia kathyae* (J.Uteley) J.R.Grant. See Grant (1995a, p.42).
- 15-142 *V. hygrometrica* (André) L.B.Smith & Pittendrigh.
= *Werauhia hygrometrica* (André) J.R.Grant. See Grant (1995a, p.42).
- 15-142b *V. hygrometrica* var. *angustifolia* L.B.Smith.
Previously cited as a synonym of *V. comata* (Mez & Wercklé) L.B.Smith & Pittendrigh. See Luther & Sieff (1994).
= *Werauhia comata* (Mez & Wercklé) J.R.Grant (1995a, p.40).
- 15-143 *V. paupera* (Mez & Sodiro) L.B.Smith & Pittendrigh.
= *Werauhia paupera* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.47).
- 15-144 *V. picta* (Mez & Wercklé) L.B.Smith & Pittendrigh.
= *Werauhia picta* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.47).
- 15-145 *V. lineata* (Mez & Wercklé) L.B.Smith & Pittendrigh.
Previously cited as a synonym of *V. balanophora* (Mez) L.B.Smith & Pittendrigh. See Luther & Sieff (1994).
= *Werauhia balanophora* (Mez) J.R.Grant. See Grant (1995a, p.40).
- 15-146 *V. sarcolepis* L.B.Smith.
Previously cited as a synonym of *V. williamsii* L.B.Smith. See Luther & Sieff (1994).
= *Werauhia williamsii* (L.B.Smith) J.R.Grant. See Grant (1995a, p.49).
- 15-147 *V. irazuensis* (Mez & Wercklé) L.B.Smith & Pittendrigh.
Previously cited as a synonym of *V. ororiensis* (Mez) L.B.Smith & Pittendrigh. See Luther & Sieff (1994).
= *Werauhia ororiensis* (Mez) J.R.Grant. See Grant (1995a, p.45).
- 15-148 *V. ororiensis* (Mez) L.B.Smith & Pittendrigh.
= *Werauhia ororiensis* (Mez) J.R.Grant. See Grant (1995a, p.44).
- 15-149 *V. capitata* (Mez & Wercklé) L.B.Smith & Pittendrigh.
= *Werauhia capitata* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.40).
- 15-150 *V. stenophylla* (Mez & Wercklé) L.B.Smith & Pittendrigh.
= *Werauhia stenophylla* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.48).
- 15-150.1 *V. attenuata* L.B.Smith & Pittendrigh.
= *Werauhia attenuata* (L.B.Smith & Pittendrigh) J.R.Grant. See Grant (1995a, p.39).
- 15-151 *V. balanophora* (Mez) L.B.Smith & Pittendrigh.
= *Werauhia balanophora* (Mez) J.R.Grant. See Grant (1995a, p.39).
- 15-151.1 *V. haltonii* H.Luther.
= *Werauhia haltonii* (H.Luther) J.R.Grant. See Grant (1995a, p.42).
- 15-151.2 *V. luis-gomezii* J.Uteley.
= *Werauhia luis-gomezii* (J.Uteley) J.R.Grant. See Grant (1995a, p.43).

- 15-152 *V. viridis* (Mez & Wercklé) L.B.Smith & Pittendrigh.
= *Werauhia viridis* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.49).
- 15-153 *V. orjuelae* L.B.Smith.
= *Werauhia orjuelae* (L.B.Smith) J.R.Grant. See Grant (1995a, p.44).
- 15-154 *V. williamsii* L.B.Smith.
= *Werauhia williamsii* (L.B.Smith) J.R.Grant. See Grant (1995a, p.49).
- 15-155 *V. standleyi* (L.B.Smith) L.B.Smith & Pittendrigh.
Previously cited as a synonym of *V. ororiensis* (Mez) L.B.Smith & Pittendrigh. See Luther & Sieff (1994).
= *Werauhia ororiensis* (Mez) J.R. Grant. See Grant (1995a, p.45).
- 15-156 *V. sintenisii* (Baker) L.B.Smith & Pittendrigh.
= *Werauhia sintenisii* (Baker) J.R.Grant. See Grant (1995a, p.48).
- 15-157 *V. singuliflora* (Mez & Wercklé) L.B.Smith & Pittendrigh.
= *Werauhia singuliflora* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.48).
- 15-158 *V. vittata* (Mez & Wercklé) L.B.Smith & Pittendrigh.
= *Werauhia vittata* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.38).
- 15-166 *V. drewii* L.B.Smith.
SYN.: *Tillandsia drewii* (L.B.Smith) J.R.Grant. But see Grant (1993).
- 15-166.1 *V. boeghii* H.Luther.
SYN.: *Tillandsia boeghii* (H.Luther) J.R.Grant. But see Grant (1993).
- 15-169 *V. jimenezii* Mez & Tonduz.
= *Werauhia vittata* (Mez & Wercklé) J.R.Grant. See Grant (1995a, p.38); Utey (1994, p.134).
- 15-170 *V. petraea* (L.B.Smith) L.B.Smith.
SYN.: *Tillandsia petraea* L.B.Smith. But see Grant (1993).
- 15-170.1 *V. koideae* Rauh.
SYN.: *Tillandsia yaconorensis* J.R.Grant. But see Grant (1993).
- 15-179.2 *V. languida* L.B.Smith.
Formerly 30 in Smith & Downs (1977).
See Leme, Bromélia 3(1):27. 1996.
- 15-183 *V. saundersii* (Carrière) E. Morren ex Mez.
See Leme & Costa, Bromélia 1(2):11-8. 1994.
- 15-183.2 *V. botafogensis* Mez.
Treated as a synonym of *V. saundersii* (Carrière) E.Morren ex Mez in Smith & Downs (1977). See Leme & Costa, Bromélia 1(2):11-18. 1994.
- 15-195c *V. carinata* var. *mangaratibensis* Leme & A. Costa. Bromélia 1(4):23-6. 1994. Brazil:Rio de Janeiro. [Holo:RB; Iso:HB].
- 15-200.4 *V. debilis* Leme.
Formerly 195.1 in Luther & Sieff (1994).
- 15-200.5 *V. sandrae* Leme, J. Bromeliad Soc. 45:145-150. 1995. Brazil: Bahia. [Holo:HB].
- 15-200.6 *V. fradensis* A.Costa, Bromélia 2(4):7-9. 1995. Brazil:Rio de Janeiro. [Holo:R; Iso:HB].
- 15-206 *V. recurvata* Gaudichaud.
See Leme in Bromélia 3(3):9, cover. 1996.
- 15-223.1 *V. arachnoidea* A.Costa, J. Bromeliad Soc. 44:162-4. 1994. Brazil:Rio de Janeiro. [Holo:RB].
- 15-224 *V. hitchcockiana* (L.B.Smith) L.B.Smith.
SYN.: *Tillandsia hitchcockiana* L.B.Smith. But see Grant (1993).
- 15-225 *V. rauhii* L.B.Smith.
SYN.: *Tillandsia werneriana* J.R.Grant. But see Grant (1993).
- 15-226 *V. robusta* (Grisebach) L.B.Smith.
SYN.: *Tillandsia robusta* Grisebach. But see Grant (1993).
- 15-227 *V. patula* (Mez) L.B.Smith.
SYN.: *Tillandsia patula* Mez. But see Grant (1993).
- 15-227.1 *V. penduliscapa* Rauh.
Type location is "Morona-Santiago" not "Azuay".
SYN.: *Tillandsia penduliscapa* (Rauh) J.R.Grant. But see Grant (1993).
- 15-228 *V. cereicola* (Mez) L.B.Smith.
SYN.: *Tillandsia cereicola* Mez. But see Grant (1993).

- 15-228.1 *V. andreettae* Rauh.
SYN.: *Tillandsia andreettae* (Rauh) J.R.Grant. But see Grant (1993).
- 15-229 *V. incurva* (Grisebach) R.W.Read.
SYN.: *Tillandsia incurva* Grisebach. But see Grant (1993).
- 15-229.1 *V. castaneobulbosa* (Mez & Wercklé) J.R.Grant.
SYN.: *Tillandsia castaneobulbosa* Mez & Wercklé. But see Grant (1993).
- 15-230 *V. olmosana* L.B.Smith.
SYN.: *Tillandsia olmosana* (L.B.Smith) J.R.Grant. But see Grant (1993).
- 15-230b *V. olmosana* var. *pachamamae* Rauh.
SYN.: *Tillandsia olmosana* var. *pachamamae* (Rauh) J.R.Grant. But see Grant (1993).
- 15-231 *V. cylindrica* L.B.Smith.
SYN.: *Tillandsia porphyrocaspada* J.R.Grant. But see Grant (1993).
- 15-232 *V. sagasteguii* L.B.Smith.
SYN.: *Tillandsia peruviana* J.R.Grant. But see Grant (1993).
- 15-233 *V. harmsiana* (L.B.Smith) L.B.Smith.
SYN.: *Tillandsia harmsiana* (L.B.Smith) J.R.Grant. But see Grant (1993).
- 15-234 *V. tillandsioides* L.B.Smith.
SYN.: *Tillandsia tillandsioides* J.R.Grant. But see Grant (1993).
- 15-234.1 *V. wuelfinghoffii* Rauh & E.Gross.
SYN.: *Tillandsia azuayensis* (Rauh & E.Gross) J.R.Grant. But see Grant, Phytologia 77:99-101. 1994.
- 15-235 *V. arpocalyx* (André) L.B.Smith.
SYN.: *Tillandsia arpocalyx* André. But see Grant (1993).
- 15-235.1 *V. limonensis* Rauh.
SYN.: *Tillandsia limonensis* (Rauh) J.R.Grant. But see Grant (1993).
- 15-236 *V. tequendamae* (André) L.B.Smith.
SYN.: *Tillandsia tequendamae* André. But see Grant (1993).
- 15-236.1 *V. strobilae* Rauh.
SYN.: *Tillandsia strobilae* (Rauh) J.R.Grant. But see Grant (1993).
- 15-237 *V. pereziana* (André) L.B.Smith.
SYN.: *Tillandsia pereziana* André. But see Grant (1993).
- 15-241 *V. barclayana* (Baker) L.B.Smith.
SYN.: *Tillandsia barclayana* Baker. But see Grant (1993).
- 15-241.1 *V. curvispica* Rauh.
SYN.: *Tillandsia curvispica* (Rauh) J.R.Grant. But see Grant (1993).
- 15-241.2 *V. cathcartii* H.Luther, J. Bromeliad Soc. 45:52-4. 1995. Zamora-Chinchipe. [Holo:SEL; Iso:QCNE].
SYN.: *Tillandsia cathcartii* (H.Luther) J.R.Grant. But see Grant (1996, p.255).
- 15-242 *V. extensa* L.B.Smith.
= *Alcantarea extensa* (L.B.Smith) J.R.Grant. See Grant (1995a, p.13).
- 15-244 *V. geniculata* (Wawra) Wawra.
= *Alcantarea geniculata* (Wawra) J.R.Grant. See Grant (1995a, p.13).
- 15-244.1 *V. odorata* Leme.
= *Alcantarea odorata* (Leme) J.R.Grant. See Grant (1995a, p.13).
- 15-244.2 *V. nahoumii* Leme, J. Bromeliad Soc. 43:244-5. 1993. Brazil: Bahia. [Holo:HB].
= *Alcantarea nahoumii* (Leme) J.R.Grant. See Grant (1995a, p.13).
- 15-245 *V. regina* (Vellozo) Beer.
= *Alcantarea regina* (Vellozo) Harms. See Grant (1995a, p.13-4).
- 15-246 *V. brasiliana* L.B.Smith.
= *Alcantarea brasiliana* (L.B.Smith) J.R.Grant. See Grant (1995a, p.12).
- 15-246.1 *V. vinicolor* E.Pereira & Reitz.
= *Alcantarea vinicolor* (E.Pereira & Reitz) J.R.Grant. See Grant (1995a, p.14).
- 15-246.2 *V. burle-marxii* Leme, Pabstia IV(3):4,9. 1993. Brazil: Minas Gerais. [Holo:HB].
= *Alcantarea burle-marxii* (Leme) J.R.Grant, Bromélia 2(3):24-26. 1996.
- 15-247 *V. gibba* L.B.Smith.
= *Werauhia gibba* (L.B.Smith) J.R.Grant. See Grant (1996, p.255).
- 15-248 *V. imperialis* Carrière.
= *Alcantarea imperialis* (Carrière) Harms. See J.R.Grant. See Grant (1995a, p.13).

- 15-248.1 **V. edmundoi** Leme, Pabstia IV(3):5,10. 1993. Brazil:Rio de Janeiro. [Holo:HB].
= *Alcantarea edmundoi* (Leme) J.R.Grant, Bromélia 2(3):24-6. 1996.
- 15-249 **V. duarteana** L.B.Smith.
= *Alcantarea duarteana* (L.B.Smith) J.R.Grant. See Grant (1995a, p.13).
- 15-249.1 **V. farneyi** Martinelli & A.Costa.
= *Alcantarea farneyi* (Martinelli & A.Costa) J.R.Grant. See Grant (1995a, p.13).
- 15-249.2 **V. hatschbachii** L.B.Smith & R.W.Read.
Formerly 168.1 in Luther & Sieff (1994).
= *Alcantarea hatschbachii* (L.B.Smith & R.W.Read) Leme, Bromélia 2(3):22-23. 1995.

15.1 ALCANTAREA (E.Morren ex Mez) Harms. See Grant (1995a and 1995c). See also Leme, Bromélia 2(3):15-23. 1995. This is the former subgenus *Alcantarea* of *Vriesea*. The new taxonomic sequence presented here is provisional.

- 15.1-1 **A. extensa** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:13. 1995.
BASIONYM: *Vriesea extensa* L.B.Smith, Arq. Bot. Estado Sao Paulo II. 1:116. 1943.
- 15.1-2 **A. geniculata** (Wawra) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:13. 1995.
BASIONYM: *Platystachys geniculata* Wawra, Osterr. Bot. Z. 11:345. 1862.
SYN.: *Vriesea geniculata* (Wawra) Wawra.
- 15.1-3 **A. nevaesii** Leme, Bromélia 2(3):15-19. 1995. Brazil:Rio de Janeiro. [Holo:HB].
- 15.1-4 **A. odorata** (Leme) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:13. 1995.
BASIONYM: *Vriesea odorata* Leme, Bradea 5(16):175. 1989.
- 15.1-5 **A. nahoumii** (Leme) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:13. 1995.
BASIONYM: *Vriesea nahoumii* Leme, J. Bromeliad Soc. 43:244. 1993.
- 15.1-6 **A. regina** (Vellozo) Harms in Engler & Prantl, Nat. Pflanzenfam. ed. 2, 15a:126. 1930.
BASIONYM: *Tillandsia regina* Vellozo, Fl. Flum. 136. 1829.
SYN.: *Vriesea regina* (Vellozo) Beer.
- 15.1-7 **A. brasiliiana** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:12. 1995.
BASIONYM: *Vriesea brasiliiana* L.B.Smith, Arq. Bot. Estado Sao Paulo II. 1:115. 1943.
- 15.1-8 **A. vinicolor** (E.Pereira & Reitz) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:14. 1995.
BASIONYM: *Vriesea vinicolor* E.Pereira & Reitz, Bradea 1:386. 1974.
- 15.1-9 **A. burle-marxii** (Leme) J.R.Grant, Bromélia 2(3):24-6. 1996.
BASIONYM: *Vriesea burle-marxii* Leme, Pabstia 4(3):4. 1993.
- 15.1-10 **A. imperialis** (Carrière) Harms in Engler & Prantl, Nat. Pflanzenfam. ed.2, 15a:126. 1930.
BASIONYM: *Vriesea imperialis* Carrière, Rev. Hort. 60:38. 1888.
- 15.1-11 **A. edmundoi** (Leme) J.R.Grant, Bromélia 2(3):24-6. 1996.
BASIONYM: *Vriesea edmundoi* Leme, Pabstia 4(3):5. 1993.
- 15.1-12 **A. duarteana** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:13. 1995.
BASIONYM: *Vriesea duarteana* L.B.Smith, Phytologia 16:80. 1968.
- 15.1-13 **A. hatschbachii** (L.B.Smith & R.W.Read) Leme, Bromélia 2(3):22-3. 1995.
BASIONYM: *Vriesea hatschbachii* L.B.Smith & R.W.Read, Phytologia 30:292. 1975.
- 15.1-14 **A. farneyi** (Martinelli & A.Costa) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:13. 1995.
BASIONYM: *Vriesea farneyi* Martinelli & A.Costa, J. Bromeliad Soc. 40:151. 1990.
- 15.1-15 **A. benzingii** Leme, Bromélia 2(3):19-22. 1995. Brazil:Espirito Santo. [Holo:HB].

15.2 WERAUHIA J.R.Grant (1995a; 1996). The preliminary taxonomic sequence used here is based, in part, on Utley (1983) as well as Grant (1995a). These taxa were formerly placed in section *Xiphion* of *Vriesea* subgenus *Vriesea*.

WERAUHIA section **WERAUHIA** J.R.Grant. See Grant (1995a, 1995b). These are the "secund-flowered vrieseas".

- 15.2-0 **W. breedloveana** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:31. 1995.
= *W. werckleana* (Mez) J.R.Grant, Phytologia 78:119-23. 1995.

- 15.2-0 **W. chiapensis** (Matuda) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:31. 1995.
= *W. pectinata* (L.B.Smith) J.R.Grant.
- 15.2-0 **W. cornuscervi** (Rohweder) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:31. 1995.
BASIONYM: *Vriesea cornuscervi* Rohweder, Abh. Auslandsk., Band 61, Reihe C, Naturwiss 18:82. 1956.
= *W. werckleana* (Mez) J.R.Grant. See Grant (1995b, p.122).
- 15.2-0 **W. dodsonii** (L.B.Smith) J.R.Grant, Phytologia 79:254-6. "1995" 1996.
BASIONYM: *Vriesea dodsonii* L.B.Smith, Phytologia 8:221. 1962.
= *Werauhia apiculata* (L.B.Smith) J.R.Grant.
- 15.2-0 **W. nutans** (L.B.Smith) J.R.Grant, Phytologia 79:254-6. "1995" 1996.
BASIONYM: *Vriesea nutans* L.B.Smith, Phytologia 7:175. 1960.
= *Werauhia viridiflora* (L.B.Smith) J.R.Grant.
- 15.2-0 **W. ovandensis** (Matuda) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:33. 1995.
= *W. pycnantha* (L.B.Smith) J.R.Grant, Phytologia 78:122. 1995.
- 15.2-1 **W. werckleana** (Mez) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:38. 1995.
BASIONYM: *Vriesea werckleana* Mez, Bull. Herb. Boissier II, 3(2):136. 1903.
SYN.: *Vriesea breedloveana* L.B.Smith.
SYN.: *Vriesea cornuscervi* Rohweder.
SYN.: *Werauhia breedloveana* (L.B.Smith) J.R.Grant.
SYN.: *Werauhia cornuscervi* (Rohweder) J.R.Grant.
- 15.2-2 **W. kupperiana** (Suessenguth) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:32. 1995.
BASIONYM: *Vriesea kupperiana* Suessenguth, Bot. Arch. 39:384. 1939.
SYN.: *Vriesea confusa* L.B.Smith.
SYN.: *Vriesea killipiana* L.B.Smith.
- 15.2-3 **W. gigantea** (Martius ex Schultesf.) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:31. 1995.
BASIONYM: *Tillandsia gigantea* Martius ex Schultesf. in Roemer & Schultes, Syst. Veg. 7(2):1224. 1830.
SYN.: *Vriesea amazonica* (Baker) Mez.
- 15.2-4 **W. sanguinolenta** (Linden ex Cogniaux & Marchal) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:35. 1995.
BASIONYM: *Vriesea sanguinolenta* Linden ex Cogniaux & Marchal, Album Dallière II, pl. 52. 1874.
- 15.2-5 **W. gibba** (L.B.Smith) J.R.Grant, Phytologia 79:254-6. "1995" 1996.
BASIONYM: *Vriesea gibba* L.B.Smith, Contr. U.S. Natl. Herb. 29:524. 1954.
- 15.2-6 **W. tarmaensis** (Rauh) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:35. 1995.
BASIONYM: *Vriesea tarmaensis* Rauh, Trop. Subtrop. Pflanzenwelt 43:33. 1983.
- 15.2-7 **W. ringens** (Grisebach) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:35. 1995.
BASIONYM: *Tillandsia ringens* Grisebach, Cat. pl. Cub. 255. 1866.
SYN.: *Vriesea ringens* (Grisebach) Harms.
- 15.2-8 **W. vittata** (Mez & Wercklé) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:38. 1995.
BASIONYM: *Thecophyllum vittatum* Mez & Wercklé, Bull. Herb. Boissier II, 4(9):871. 1904.
SYN.: *Vriesea jimenezii* Mez & Tonduz.
SYN.: *Vriesea vittata* (Mez & Wercklé) L.B.Smith & Pittenbrigh.
SYN.: *Vriesea naundorffiae* Rauh.
SYN.: *Vriesea schippii* L.B.Smith.
- 15.2-9 **W. graminifolia** (Mez & Wercklé) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:32. 1995.
BASIONYM: *Vriesea graminifolia* Mez & Wercklé, Bull. Herb. Boissier II, 4(9):868. 1904.
- 15.2-10 **W. apiculata** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:30. 1995.
BASIONYM: *Vriesea apiculata* L.B.Smith, Phytologia 8:221. 1962.
SYN.: *Vriesea dodsonii* L.B.Smith. See Grant (1995a, p.30).
SYN.: *Werauhia dodsonii* (L.B.Smith) J.R.Grant.
- 15.2-11 **W. panamaensis** (E.Gross & Rauh) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:33. 1995.
BASIONYM: *Vriesea panamaensis* E.Gross & Rauh, Trop. Subtrop. Pflanzenwelt 75:42. 1990.

- 15.2-12 **W. verrucosa** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:38. 1995.
BASIONYM: *Vriesea verrucosa* L.B.Smith, Phytologia 5:44. 1954.
- 15.2-13 **W. marnier-lapostollei** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:33. 1995.
BASIONYM: *Vriesea marnier-lapostollei* L.B.Smith, Bull. Bromeliad Soc. 14:109. 1964.
- 15.2-14 **W. pectinata** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:33. 1995.
BASIONYM: *Vriesea pectinata* L.B.Smith, Lilloa 6:387. 1941.
SYN.: *Vriesea chiapensis* Matuda.
SYN.: *Werauhia chiapensis* (Matuda) J.R.Grant.
- 15.2-15 **W. subsecunda** (Wittmack) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:35. 1995.
BASIONYM: *Vriesea subsecunda* Wittmack, Bot. Jahrb. 11:69. 1890.
- 15.2-16 **W. viridiflora** (Regel) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:38. 1995.
BASIONYM: *Pitcairnia viridiflora* Regel, Ind. Sem. Hort. Petrop. "1866":81. 1867.
SYN.: *Vriesea brachyphylla* Mez & Wercklé.
SYN.: *Vriesea nutans* L.B.Smith.
SYN.: *Vriesea viridiflora* (Regel) Wittmack ex Mez.
SYN.: *Werauhia nutans* (L.B.Smith) J.R.Grant.
- 15.2-17 **W. broadwayi** (L.B.Smith) J.R.Grant, Phytologia 79:254-6. "1995" 1996.
BASIONYM: *Vriesea broadwayi* L.B.Smith, Proc. Amer. Acad. Arts 68:149. 1933.
- 15.2-18 **W. haplostachya** (C.Wright ex Sauvalle) J.R.Grant, Phytologia 79:254-6. "1995" 1996.
BASIONYM: *Tillandsia haplostachya* C.Wright ex Sauvalle, Anales Acad. Ci. Med. Habana 8:73. 1871.
SYN.: *Vriesea haplostachya* (C.Wright ex Sauvalle) L.B.Smith.
- 15.2-19 **W. gladioliflora** (H.Wendland) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:31. 1995.
BASIONYM: *Tillandsia gladioliflora* H.Wendland, Hamburger Garten-Blumenzeitung 19:31. 1863.
SYN.: *Vriesea gladioliflora* (H.Wendland) Antoine.
SYN.: *Vriesea macrochlamys* Mez & Wercklé.
SYN.: *Vriesea pachychlamys* Mez.
- 15.2-20 **W. guadelupensis** (Baker) J.R.Grant, Phytologia 79:254-6. "1995" 1996.
BASIONYM: *Tillandsia guadelupensis* Baker, Handb. Bromel. 213. 1889.
SYN.: *Vriesea guadelupensis* (Baker) Mez.
- 15.2-21 **W. rugosa** (Mez & Wercklé) J.R.Grant, Phytologia 79:254-6. "1995" 1996.
Previously considered a synonym of *W. gladioliflora*. See Grant (1995a, p.31-2).
BASIONYM: *Vriesea rugosa* Mez & Wercklé, Bull. Herb. Boissier II, 4(9):866. 1904.
- 15.2-22 **W. pycnantha** (L.B.Smith) J.R.Grant, Phytologia 78:122. 1995.
BASIONYM: *Vriesea pycnantha* L.B.Smith, Contr. Gray Herb. 154:31. 1945.
SYN.: *Vriesea ovandensis* Matuda.
SYN.: *Werauhia ovandensis* (Matuda) J.R.Grant.
- 15.2-23 **W. acuminata** (Mez & Wercklé) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:30. 1995.
BASIONYM: *Vriesea acuminata* Mez & Wercklé, Bull. Herb. Boissier II, 4(9):868. 1904.
- 15.2-24 **W. brunei** (Mez & Wercklé) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:31. 1995.
BASIONYM: *Vriesea brunei* Mez & Wercklé, Bull. Herb. Boissier II, 4(9):865. 1904.
- 15.2-25 **W. macrantha** (Mez & Wercklé) J.R.Grant, Phytologia 78:121. 1995.
BASIONYM: *Vriesea macrantha* Mez & Wercklé, Bull. Herb. Boissier II, 4(9):867. 1904.
- 15.2-26 **W. van-hyningii** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:35. 1995.
BASIONYM: *Vriesea van-hyningii* L.B.Smith, Phytologia 7:173. 1960.
- 15.2-27 **W. tonduziana** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:35. 1995.
BASIONYM: *Vriesea tonduziana* L.B.Smith, North Amer. Fl. 19:166. 1938.
- 15.2-28 **W. woodsoniana** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:39. 1995.
BASIONYM: *Vriesea woodsoniana* L.B.Smith, Ann. Missouri Bot. Gard. 26:275. 1939.
- 15.2-29 **W. burgeri** (L.B.Smith) J.R.Grant, Phytologia 78:121. 1995.
BASIONYM: *Vriesea burgeri* L.B.Smith, Phytologia 28:326. 1974.
- 15.2-30 **W. pittieri** (Mez) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:33. 1995.
BASIONYM: *Vriesea pittieri* Mez, Bull. Herb. Boissier II, 3(2):135. 1903.

- 15.2-31 **W. ochracea** (Rauh & E.Gross) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:33. 1995.
BASIONYM: *Vriesea ochracea* Rauh & E.Gross, J. Bromeliad Soc. 37:196. 1987.
- 15.2-32 **W. bicolor** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:30. 1995.
BASIONYM: *Vriesea bicolor* L.B.Smith, Phytologia 7:174. 1960.
- 15.2-33 **W. ampla** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:30. 1995.
BASIONYM: *Vriesea ampla* L.B.Smith, Phytologia 8:497. 1963.
- WERAUHIA** section **JUTLEYA** J.R.Grant. See Grant (1995a, 1995b); Utley (1993). These are the "thecophylloid vrieseas".
- 15.2-34 **W. pedicellata** (Mez & Wercklé) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:47. 1995.
BASIONYM: *Thecophyllum pedicellatum* Mez & Wercklé, Bull. Herb. Boissier II, 3(2):136. 1903.
SYN.: *Vriesea pedicellata* (Mez & Wercklé) L.B.Smith & Pittendrigh.
SYN.: *Vriesea turbinata* (Mez & Wercklé) L.B.Smith & Pittendrigh.
SYN.: *Vriesea violascens* (Mez & Wercklé) L.B.Smith & Pittendrigh.
- 15.2-35 **W. rubra** (Mez & Wercklé) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:47-8. 1995.
BASIONYM: *Thecophyllum rubrum* Mez & Wercklé, Bull. Herb. Boissier II, 4(9):878. 1904.
SYN.: *Vriesea leptopoda* L.B.Smith & Pittendrigh.
- 15.2-36 **W. laxa** (Mez & Wercklé) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:43. 1995.
BASIONYM: *Thecophyllum laxum* Mez & Wercklé, Bull. Herb. Boissier II, 4(11):1123. 1904.
SYN.: *Vriesea diffusa* L.B.Smith & Pittendrigh.
- 15.2-37 **W. panniculata** (Mez & Wercklé) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:45. 1995.
BASIONYM: *Thecophyllum panniculatum* Mez & Wercklé, Bull. Herb. Boissier II, 4(11):1128. 1904.
SYN.: *Vriesea triflora* L.B.Smith & Pittendrigh.
- 15.2-38 **W. diantha** (H.Luther) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:40,42. 1995.
BASIONYM: *Vriesea diantha* H.Luther, Selbyana 12:87. 1991.
- 15.2-39 **W. greenbergii** (J.Utley) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:42. 1995.
BASIONYM: *Vriesea greenbergii* J.Utley, Tulane Stud. Zool. Bot. 30. 1983.
SYN.: *Vriesea patzeltii* Rauh.
SYN.: *Vriesea patzeltii* var. *panamaensis* Rauh.
SYN.: *Werauhia patzeltii* (Rauh) J.R.Grant.
SYN.: *Werauhia patzeltii* ssp. *panamaensis* (Rauh) J.R.Grant.
- 15.2-40 **W. patzeltii** (Rauh) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:45. 1995.
BASIONYM: *Vriesea patzeltii* Rauh, Trop. Subtrop. Pflanzenwelt 33:17. 1981.
= *Werauhia greenbergii* (J.Utley) J.R.Grant.
- 15.2-40b **W. patzeltii** ssp. *panamaensis* (Rauh) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:45. 1995.
BASIONYM: *Vriesea patzeltii* var. *panamaensis* Rauh, Trop. Subtrop. Pflanzenwelt 33:17. 1981.
= *Werauhia greenbergii* (J.Utley) J.R.Grant
- 15.2-41 **W. dressleri** (Rauh) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:42. 1995.
BASIONYM: *Vriesea dressleri* Rauh, Trop. Subtrop. Pflanzenwelt 58:41. 1986.
- 15.2-42 **W. umbrosa** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:48. 1995.
BASIONYM: *Vriesea umbrosa* L.B.Smith, Phytologia 28:328. 1974.
- 15.2-43 **W. latissima** (Mez & Wercklé) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:43. 1995.
BASIONYM: *Thecophyllum latissimum* Mez & Wercklé, Bull. Herb. Boissier II, 4(11):1122. 1904.
SYN.: *Vriesea discolor* (Mez & Wercklé) L.B.Smith & Pittendrigh.
SYN.: *Vriesea latissima* (Mez & Wercklé) L.B.Smith & Pittendrigh.
SYN.: *Vriesea ranifera* L.B.Smith.
- 15.2-44 **W. lyman-smithii** (J.Utley) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:43-4. 1995.
BASIONYM: *Vriesea lyman-smithii* J.Utley, Tulane Stud. Zool. Bot. 35. 1983.

- 15.2-45 **W. nephrolepis** (L.B.Smith & Pittendrigh) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:44. 1995.
BASIONYM: *Vriesea nephrolepis* L.B.Smith & Pittendrigh, J. Wash. Acad. Sci. 43: 403. 1953.
SYN.: *Vriesea montana* (L.B.Smith) L.B.Smith & Pittendrigh.
- 15.2-46 **W. ororiensis** (Mez) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:44-5. 1995.
BASIONYM: *Guzmania ororiensis* Mez in C.DeCandolle, Monogr. Phan. 9:917. 1896.
SYN.: *Vriesea crassifolia* (Mez & Wercklé) Utley.
SYN.: *Vriesea cylindracea* (Suessenguth & Geopinger) L.B.Smith & Pittendrigh.
SYN.: *Vriesea irazuensis* (Mez & Wercklé) L.B.Smith & Pittendrigh.
SYN.: *Vriesea ororiensis* (Mez) L.B.Smith & Pittendrigh.
SYN.: *Vriesea standleyi* (L.B.Smith) L.B.Smith & Pittendrigh.
- 15.2-47 **W. sintenisii** (Baker) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:48. 1995.
BASIONYM: *Caraguata sintenisii* Baker, Handb. Bromel. 145. 1889.
SYN.: *Vriesea sintenisii* (Baker) L.B.Smith & Pittendrigh.
- 15.2-48 **W. urbaniana** (Mez) J.R.Grant, Phytologia 79:254-6. "1995" 1996.
BASIONYM: *Guzmania urbaniana* Mez in C.DeCandolle, Monogr. Phan. 9:920. 1896.
SYN.: *Vriesea antillana* L.B.Smith & Pittendrigh.
- 15.2-49 **W. balanophora** (Mez) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:39. 1995.
BASIONYM: *Guzmania balanophora* Mez in C.DeCandolle, Monogr. Phan. 9:918. 1896.
SYN.: *Vriesea balanophora* (Mez) L.B.Smith & Pittendrigh.
SYN.: *Vriesea lineata* (Mez & Wercklé) L.B.Smith & Pittendrigh.
- 15.2-50 **W. haltonii** (H.Luther) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:42. 1995.
BASIONYM: *Vriesea haltonii* H.Luther, Selbyana 7(3):348. 1984.
- 15.2-51 **W. luis-gomezii** (J.Utley) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:43. 1995.
BASIONYM: *Vriesea luis-gomezii* J.Utley, Tulane Stud. Zool. Bot. 48. 1983.
- 15.2-52 **W. viridis** (Mez & Wercklé) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:49. 1995.
BASIONYM: *Thecophyllum viride* Mez & Wercklé, Bull. Herb. Boissier II, 4(9):872. 1904.
SYN.: *Vriesea viridis* (Mez & Wercklé) L.B.Smith & Pittendrigh.
- 15.2-53 **W. hainesiorum** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:42. 1995.
BASIONYM: *Vriesea hainesiorum* L.B.Smith, Phytologia 8:498. 1963.
- 15.2-54 **W. leucophylla** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:43. 1995.
BASIONYM: *Vriesea leucophylla* L.B.Smith, Phytologia 8:498. 1963.
SYN.: *Vriesea leucophylla* var. *subtessallata* Utley.
- 15.2-55 **W. victoris** (J.Utley) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:48. 1995.
BASIONYM: *Vriesea victoris* J.Utley, Brittonia 33:584. 1981.
- 15.2-56 **W. uxoris** (J.Utley) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:48. 1995.
BASIONYM: *Vriesea uxoris* J.Utley, Brittonia 33:583. 1981.
- 15.2-57 **W. cowellii** (Mez & N.L.Britton) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:40. 1995.
BASIONYM: *Tillandsia cowellii* Mez & N.L.Britton, Bull. Herb. Boissier II, 3(2):225. 1903.
SYN.: *Vriesea cowellii* (Mez & N.L.Britton) L.B.Smith.
- 15.2-58 **W. picta** (Mez & Wercklé) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:47. 1995.
BASIONYM: *Thecophyllum pictum* Mez & Wercklé, Bull. Herb. Boissier II, 4(9):874. 1904.
SYN.: *Vriesea picta* (Mez & Wercklé) L.B.Smith & Pittendrigh.
- 15.2-59 **W. williamsii** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:49. 1995.
BASIONYM: *Vriesea williamsii* L.B.Smith, Phytologia 6:193. 1958.
SYN.: *Vriesea sarcolepis* L.B.Smith.
- 15.2-60 **W. orjuelae** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:44. 1995.
BASIONYM: *Vriesea orjuelae* L.B.Smith, Phytologia 16:81. 1968.
- 15.2-61 **W. stenophylla** (Mez & Wercklé) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:48. 1995.
BASIONYM: *Thecophyllum stenophyllum* Mez & Wercklé, Bull. Herb. Boissier II, 4(9): 875. 1904.
SYN.: *Vriesea stenophylla* (Mez & Wercklé) L.B.Smith & Pittendrigh.

- 15.2-62 **W. comata** (Mez & Wercklé) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:40. 1995.
BASIONYM: *Thecophyllum comatum* Mez & Wercklé, Bull. Herb. Boissier II, 4(11): 871. 1904.
SYN.: *Vriesea comata* (Mez & Wercklé) L.B.Smith & Pittendrigh.
SYN.: *Vriesea hygrometrica* var. *angustifolia* L.B.Smith.
- 15.2-63 **W. attenuata** (L.B.Smith & Pittendrigh) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91: 39. 1995.
BASIONYM: *Vriesea attenuata* L.B.Smith & Pittendrigh, J. Wash. Acad. Sci. 43:401. 1953.
- 15.2-64 **W. singuliflora** (Mez & Wercklé) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:48. 1995.
BASIONYM: *Thecophyllum singuliflorum* Mez & Wercklé, Bull. Herb. Boissier II, 4(9): 870. 1904.
SYN.: *Vriesea singuliflora* (Mez & Wercklé) L.B.Smith.
- 15.2-65 **W. hygrometrica** (André) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:42. 1995.
BASIONYM: *Caraguata hygrometrica* André, Enum. Bromel. 6. 13 Dec 1888; Rev. Hort. 60:566 16 Dec 1888.
SYN.: *Vriesea hygrometrica* (André) L.B.Smith & Pittendrigh.
SYN.: *Vriesea johnstonii* (Mez) L.B.Smith & Pittendrigh.
SYN.: *Vriesea nocturna* Matuda.
- 15.2-66 **W. paupera** (Mez & Sodiro) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:47. 1995.
BASIONYM: *Thecophyllum pauperum* Mez & Sodiro, Bull. Herb. Boissier II, 4(9): 876. 1904
SYN.: *Vriesea paupera* (Mez & Sodiro) L.B.Smith & Pittendrigh.
- 15.2-67 **W. notata** (L.B.Smith & Pittendrigh) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:44. 1995.
BASIONYM: *Vriesea notata* L.B.Smith & Pittendrigh, J. Wash. Acad. Sci. 43:403. 1953.
- 15.2-68 **W. kathyae** (J.Utley) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:42. 1995.
BASIONYM: *Vriesea kathyae* J.Utley, Tulane Stud. Zool. Bot. 71. 1983.
- 15.2-69 **W. bracteosa** (Mez & Wercklé) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:40. 1995.
BASIONYM: *Thecophyllum bracteosum* Mez & Wercklé in Mez, Feddes Repert. Sp. Nov. Regni Veg. 14:246. 1916.
SYN.: *Vriesea bracteosa* (Mez & Wercklé) L.B.Smith & Pittendrigh.
- 15.2-70 **W. capitata** (Mez & Wercklé) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:40. 1995.
BASIONYM: *Thecophyllum capitatum* Mez & Wercklé, Bull. Herb. Boissier II 4(9): 873. 1904.
SYN.: *Vriesea capitata* (Mez & Wercklé) L.B.Smith & Pittendrigh.
- 16 GUZMANIA** Ruiz & Pavon. See Luther & Kress, Brittonia 48(1):91-93. 1996.
- 16-1.01 **G. plumieri** auct. non (Grisebach) Mez.
= *G. steyermarkii* L.B.Smith. See Holst (1994, p.149).
- 16-23 **G. steyermarkii** L.B.Smith.
SYN.: *G. plumieri* auct. non (Grisebach) Mez
- 16-42.1 **G. fuquae** H.Luther & Determann, J. Bromeliad Soc. 45:118-22. 1995. Ecuador: Esmeraldas [Holo:SEL; Iso:QCA, QCNE].
- 16-55.1 **G. henniae** H.Luther, Nordic J. Bot. 14:327-9. 1994. Ecuador:Morona-Chinchipe. [Holo:SEL; Iso:QCA].
- 16-70.1 **G. corniculata** H.Luther, J. Bromeliad Soc. 46:81-2. 1996. Ecuador:Esmeraldas. [Holo:SEL].
- 16-80.3 **G. elvallensis** H.Luther, Bromelia 3(1):8-12. 1996. Panama:Coclé. [Holo:MO].
See also Luther in Bromelia 3(3):19. 1996.
- 16-92 **G. monostachia** (Linnaeus) Rusby ex Mez in C.DeCandolle.
See Rauh & von Bismark, Trop. Subtrop. Pflanzenwelt 94:1-46. 1996.
- 16-99 **G. wittmackii** (André) André ex Mez.
See Manzanares, J. Bromeliad Soc. 45:195-7. 1995.
- 16-99.1 **G. alcantareoides** H.Luther, J. Bromeliad Soc. 43:195-7. 1993. Ecuador:Zamora-Chinchipe. [Holo:SEL].

- 16-104.2 **G. bergii** H.Luther, Selbyana 18(1):95-8. 1997. Ecuador:Morona-Santiago. [Holo:SEL].
- 16-104.3 **G. pseudospectabilis** H.Luther, Selbyana 16(2):235,236. 1995. Ecuador:Imbabura. [Holo:SEL].
- 16-112.2 **G. inexpectata** H.Luther, J. Bromeliad Soc. 44:30-1. 1994. Ecuador:Esmeraldas. [Holo:SEL].
- 16-119.1 **G. scandens** H.Luther & W.J.Kress, Brittonia 48(1):93-5. 1996. Costa Rica:Cartago. [Holo:SEL; Iso:CR,US].
- 16-119.2 **G. herrerae** H.Luther & W.J.Kress, Brittonia 48(1):91-3. 1996. Costa Rica:Alajuela. [Holo:CR; Iso:MO].

17 MEZOBROMELIA L.B.Smith. See Luther, Bromélia 2(1):3-5. 1995.

- 17-1.2 **M. capituligera** (Grisebach) J.R.Grant, Phytologia 74:428-30. 1993. BASIONYM: *Tillandsia capituligera* Grisebach, Cat. Pl. Cub. 254. 1866. SYN.: *Vriesea capituligera* (Grisebach) L.B.Smith. SYN.: *Vriesea capituligera* var. *lutea* Steyermark.
- 17-2.5 **M. hospitalis** (L.B.Smith) J.R.Grant, Phytologia 74:428-30. 1993. BASIONYM: *Tillandsia hospitalis* L.B.Smith, Caldasia 5:13. 1948. SYN.: *Vriesea hospitalis* (L.B.Smith) L.B.Smith.
- 17-2.6 **M. magdalenae** (L.B.Smith) J.R.Grant, Phytologia 74:428-29. 1993. BASIONYM: *Vriesea magdalenae* L.B.Smith, Phytologia 8:500. 1963.

25 OCHAGAVIA R. Philippi.

- 25-1 **O. elegans** R. Philippi. See Wilkin, J. Bromeliad Soc. 45:244-6, 269. 1995.

26 NEOREGELIA L.B.Smith. See Ramírez, Selbyana 15(2):82-4. 1994.

- 26-10 **N. peruviana** L.B.Smith. = *N. mooreana* L.B.Smith.
- 26-11 **N. mooreana** L.B.Smith. SYN.: *N. peruviana* L.B.Smith.
- 26-13 **N. fosteriana** L.B.Smith. See Luther, Bromélia 2(2):5-7. 1995.
- 26-13.2 **N. lactea** H.Luther & Leme, Bromélia 2(2):8-11. 1995. Brazil:Rio de Janeiro. [Holo:HB; Iso:SEL].
- 26-16.1 **N. elmoreana** H.Luther. = *N. magdalenae* L.B.Smith & Reitz, E. Leme, pers. comm.
- 26-21.1 **N. sanguinea** Leme, Selbyana 16(1):115-17. 1995. Brazil:Espirito Santo. [Holo:HB; Iso:SEL].
- 26-26 **N. wilsoniana** M.B.Foster. SYN.: *N. alvimii* Röth. SYN.: *N. alvimii* var. *donatoi* Röth.
- 26-39.1 **N. crispata** Leme, J. Bromeliad Soc. 46:20, 22-3. 1996. Brazil:Bahia. [Holo:HB; Iso:CEPEC].
- 26-41.1 **N. petropolitana** Leme, J. Bromeliad Soc. 45:199-210. 1995. Brazil:Rio de Janeiro. [Holo:HB].
- 26-50.1 **N. nivea** Leme, J. Bromeliad Soc. 46:219-20. 1996. Brazil:Sao Paulo. [Holo:HB].
- 26-52.1 **N. burle-marxii** R.W.Read, J. Bromeliad Soc. 46:261-4. 1996. Brazil:Sao Paulo. [Holo:US; Iso:SEL].
- 26-52.1b **N. burle-marxii** ssp. *meeana* R.W.Read, J. Bromeliad Soc. 46:263. 1996. Brazil:Sao Paulo. [Holo:SEL; Iso:US].
- 26-54 **N. magdalenae** L.B.Smith & Reitz. SYN.: *N. elmoreana* H.Luther.
- 26-58.1 **N. alvimii** Röth. = *N. wilsoniana* M.B.Foster, E. Leme, pers.comm.

- 26-58.1b **N. alvimii** var. *donatoi* Röth. = *N. wilsoniana* M.B.Foster, E. Leme, pers. comm.
- 26-58.2 **N. rubrovittata** Leme, J. Bromeliad Soc. 46:217-9. 1996. Brazil:Rio de Janeiro. [Holo:HB].

27 CRYPTANTHUS Otto & Dietrich. See Cândido in Bromélia 2(4):15-21 1996; Ramírez (1996).

- 27-3 **C. duartei** L.B.Smith. = *Orthophytum suphutii* E. Gross & Barthlott. See Leme, J. Bromeliad Soc. 45:3-5. 1995.
- 27-4.5 **C. caracensis** Leme & E.Gross, Cryptanthus Soc. J. 7(4):12-16. 1992. Brazil:Minas Gerais. [Holo:HB].
- 27-5.6 **C. capitatus** Leme, Cryptanthus Soc. J. 9(4):6-9. 1994. Brazil:Espirito Santo. [Holo:HB].
- 27-6.2 **C. scaposus** E.Pereira. Incorrectly recorded as 5.1 in Luther & Sieff (1994).
- 27-6.3 **C. roberto-kautskyi** Leme. Incorrectly recorded as 5.3 in Luther & Sieff (1994).
- 27-6.4 **C. odoratissimus** Leme. Incorrectly recorded as 5.4 in Luther & Sieff (1994).
- 27-6.5 **C. whitmanii** Leme, Cryptanthus Soc. J. 9(2):14-5. 1994. Brazil:Espirito Santo. [Holo:HB].
- 27-6.6 **C. fernseeoides** Leme, Cryptanthus Soc. J. 11(3):9-10, cover. 1996. Brazil:Espirito Santo [Holo:HB].
- 27-7 **C. sinuosus** L.B.Smith. See Luther in Cryptanthus Soc. J. 11(3):13-5. 1996.
- 27-7.1 **C. delicatus** Leme, Selbyana 16(1):114-5. 1995. Brazil:Rio de Janeiro. [Holo:HB]. See also Cryptanthus Soc. J. 11(4):9-11. 1996.
- 27-8.5 **C. warren-loosei** Leme, Cryptanthus Soc. J. 8(2-3):16-9. 1993. Brazil:Bahia. [Holo:HB].
- 27-8.6 **C. correia-araujo** Leme, Bromélia 2(3):7-9. 1995. Brazil:Espirito Santo. [Holo:HB]. See also Cryptanthus Soc. J. 11(4):6-8. 1996.
- 27-8.7 **C. dorothyae** Leme, Cryptanthus Soc. J. 11(1):6-8. 1996. Brazil:Espirito Santo. [Holo:HB].
- 27-19.2 **C. vexatus** Leme, Cryptanthus Soc. J. 10(4):9-11. 1995. Brazil:Bahia. [Holo:HB].

28 NIDULARIUM Lemaire.

- 28-2.5 **N. lyman-smithii** Leme, Pabstia IV(1):6-7,11. 1993. Brazil:Espirito Santo. [Holo:HB].
- 28-2.6 **N. linehamii** Leme, J. Bromeliad Soc. 43:199-203. 1993. Brazil:Minas Gerais. [Holo:HB].
- 28-6.1 **N. fradense** Leme, Selbyana 16(1):117,118. 1995. Brazil:Rio de Janeiro. [Holo:HB].
- 28-7.1 **N. espirito-santense** Leme, Pabstia VI(2):14-6. 1995. Brazil:Espirito Santo. [Holo:HB; Iso:RB].
- 28-8.2 **N. campo-alagrense** Leme, Pabstia V:12-3. 1994. Brazil:Santa Catarina. [Holo:HB].
- 28-8.3 **N. exostigmum** Tardivo, Bromélia 2(2):26-8. 1995. Brazil:Parana. [Holo:UPCB].
- 28-12.1 **N. picinguabense** Leme, Pabstia IV(3):3,8. 1993. Brazil:Sao Paulo. [Holo:HB; Iso:RB,SEL].
- 28-21.3 **N. meeanum** Leme, Wanderley and Mollo, Fl. Fanerogamica da Ilha do Cardoso, Vol.3:108-9. 1992. Brazil:Rio de Janeiro. [Holo:HB].
- 28-21.4 **N. gracile** Tardivo, Bromélia 2(2):29-31. 1995. Brazil:Parana. [Holo:UPCB; Iso:UPCB].
- 28-23.1 **N. kautskyianum** Leme, Selbyana 16(1):117-20. 1995. Brazil:Espirito Santo. [Holo:HB].
- 28-23.2 **N. jonesianum** Leme, Pabstia VI(2):1-3. 1995. Brazil:Rio Grande do Sul. [Holo:HB].

29 GREIGIA Regel.

- 29-19 **G. landbeckii** (Lechler ex Grisebach) R.Philippi.
Author cited as (Lechler ex Philippi) Philippi in Smith & Downs (1979). See Till (1995, p.414).

31 BROMELIA Linnaeus.

- 31-26.1 **B. flemingii** I.Ramirez & Carnevali, J. Bromeliad Soc. 46:206-10. 1996. Venezuela: Aragua. [Holo:VEN; Iso:SEL].
31-27.1 **B. estevesii** Leme, Pabstia IV(1):5-6,10. 1993. Brazil:Piaui. [Holo:HB; Iso:RB].
31-46.2 **B. granvillei** L.B.Smith & Gouda, Bromélia 3(4):9-12. 1996. French Guiana. [Holo:CAY].

34 ORTHOPHYTUM Beer.

- 34-2.3 **O. supthutii** E.Gross & Barthlott.
See Leme, J. Bromeliad Soc. 45:3-5. 1995.
SYN.: *Cryptanthus duartei* L.B.Smith.
34-4.1 **O. hatschbachii** Leme, Selbyana 16(1):120,122. 1995. Brazil:Bahia. [Holo:MBM].
34-5.1 **O. braunii** Leme, Pabstia V:14-5. 1994. Brazil:Bahia. [Holo:HB].
34-8.1 **O. sucrei** H.Luther, Selbyana 18(1):95,96. 1997. Brazil. [Holo:SEL; Iso:RB].
34-17.1 **O. gurkenii** Hutchison
Incorrectly recorded as 18 in Luther & Sieff (1994).

36 CANISTRUM E. Morren.

- 36-4.3 **C. auratum** Leme, Pabstia IV(3):2,7. 1993. Brazil:Minas Gerais. [Holo:HB; Iso:RB,SEL].

37 WITTROCKIA Lindeman.

- 37-1.2 **W. echinata** Leme, Selbyana 16(1):121-22. 1995. Brazil:Bahia. [Holo:CEPEC].

38 HOHENBERGIA Schultes.

- 38-21.2 **H. burle-marxii** Leme & W.Till, Bromélia 3(1):28-32. 1996. Brazil:Bahia. [Holo:HB; Iso:WU].
38-39 **H. penduliflora** (A.Richard) Mez in C.DeCandolle.
See Till (1995, p.414).
38-41 **H. andina** Betancur.
See Luther, J. Bromeliad Soc. 44:64, 96. 1994.

39 DISTEGANTHUS Lemaire.

- 39-2.1 **D. lateralis** (L.B.Smith) Gouda, Brittonia 46:134-6. 1994.
BASIONYM: *Aechmea lateralis* L.B.Smith, Contr. U.S. Natl. Herb. 29:525. 1954.
SYN.: *Chevaliera lateralis* (L.B.Smith) L.B.Smith & W.J.Kress.

40 AECHMEA Ruiz & Pavon. See Wendt (1993); Grant, Phytologia 77(2):99-101. 1994.

- 40-0 **A. columnaris** André.
Treated as a synonym of *A. paniculigera* (Swartz) Grisebach in Smith & Downs (1979).
= *A. latifolia* (Willdenow ex Schultes f.) Baker ex Klotzsch.
40-1 **A. macvaughii** L.B.Smith.
= *Ursulaea macvaughii* (L.B.Smith) R.W.Read & H.U.Baensch, J. Bromeliad Soc. 44:205-11. 1994.
40-1.1 **A. tuitensis** Magaña & E.J.Lott.
= *Ursulaea tuitensis* (Magaña & E.J.Lott) R.W.Read & H.U.Baensch, J. Bromeliad Soc. 44:205-11. 1994.

- 40-3.1 **A. haltonii** Luther.
See Luther, J. Bromeliad Soc. 44:52. 1994.
40-10d **A. weillbachii** var. **albipetala** Leme & A.Costa, Bromélia 1(4):23-6. 1994. Brazil: Rio de Janeiro. [Holo:RB].
40-17.1 **A. capixabae** L.B.Smith, Arq. Bot. S. Paulo II 1:56. 1941.
Treated as a synonym of *A. victoriana* var. *victoriana* L.B.Smith in Smith & Downs (1979). See Luther, J. Bromeliad Soc. 46:122-3. 1996.
40-19.3 **A. fasciata** (Lindley) Baker.
See Leme, Bromélia 1(1):34-5. 1994.
40-19.4 **A. dealbata** E.Morren ex Baker.
SYN.: *A. esseri* E.Gross & Rauh.
40-24.1 **A. esseri** Rauh.
= *A. dealbata* E.Morren ex Baker. See Gross, Bromelie 1995(2):60-2. 1996.
40-25.5 **A. rubrolilacina** Leme, Pabstia IV(1):3-4,9. 1993. Brazil:Espirito Santo. [Holo:HB].
40-26 **A. brassicoides** Baker.
See Luther, J. Bromeliad Soc. 45:218-9. 1995.
40-50.1 **A. callichroma** R.W.Read & Baensch.
See Read & Baensch, J. Bromeliad Soc. 44:17-9. 1994.
40-51 **A. aquilega** (Salisbury) Grisebach.
See Till (1995, p.414).
40-56 **A. lingulata** (Linnaeus) Baker.
See Till (1995, p.414).
40-57 **A. araneosa** L.B.Smith.
See Leme, Bromélia 1(3):24-5. 1994.
40-61 **A. angustifolia** Poeppig & Endlicher.
SYN.: *A. brachyclada* Baker.
40-66 **A. brachyclada** Baker.
= *A. angustifolia* Poeppig & Endlicher.
40-77.1 **A. ramusculosa** Leme, Selbyana 16(1):111,113-15. 1995. Brazil:Bahia. [Holo:MBM].
40-80.2 **A. latifolia** (Willdenow ex Schultes f.) Klotzsch ex Baker, Handb. Bromel. 36. 1889.
Treated as a synonym of *A. paniculigera* (Swartz) Grisebach in Smith & Downs (1979).
BASIONYM: *Bromelia latifolia* Willdenow ex Schultes f. in Roemer & Schultes, Syst. 7(2):1283. 1830.
SYN.: *A. columnaris* André.
40-90 **A. melinonii** Hooker.
See Luther, J. Bromeliad Soc. 44:259. 1994.
40-98.2 **A. leonard-kentiana** H.Luther & Leme, Bromélia 3(3):10-13. 1996. Brazil:Bahia. [Holo:HB; Iso:SEL].
40-101.1 **A. amorimii** Leme, J. Bromeliad Soc. 46:19-20,22. 1996. Brazil:Bahia. [Holo:CEPEC; Iso:HB].
40-119 **A. smithiorum** Mez.
See Luther, J. Bromeliad Soc. 45:26. 1995.
40-135 **A. squarrosa** Baker.
SYN.: *A. cariocae* L.B.Smith.
SYN.: *Chevaliera cariocae* (L.B.Smith) L.B.Smith & W.J.Kress.
40-138.2 **A. brueggeri** Leme, Bromélia 3(3):22-5. 1996. Brazil:Minas Gerais. [Holo:HB; Iso:UFJF].
40-140 **A. ornata** Baker.
SYN.: *A. roberto-anselmi* E.Pereira & Leme.
SYN.: *Pothuava roberto-anselmi* (E.Pereira & Leme) L.B.Smith & W.J.Kress.
40-140.1 **A. roberto-anselmi** E.Pereira & Leme.
= *A. ornata* Baker. See Wendt (1993, p.75).
40-141 **A. pineliana** (Brongniart ex Planchon) Baker.
SYN.: *A. triticina* var. *capensis* L.B.Smith.
SYN.: *Pothuava triticina* var. *capensis* (L.B.Smith) L.B.Smith & W.J.Kress.
40-141.1 **A. guarapariensis** E.Pereira & Leme.
= *A. triticina* Mez. See Wendt (1993, p.69).

- 40-141.2 **A. roberto-seidelii** E.Pereira.
Treated as a synonym of *A. pineliana* var. *minuta* M.B.Foster, in Smith & Downs (1979).
= *A. triticina* Mez. See Wendt (1993, p.69).
- 40-142 **A. triticina** Mez.
SYN.: *A. guarapariensis* E.Pereira & Leme.
SYN.: *A. roberto-seidelii* E.Pereira.
SYN.: *Pothuava quarapariensis* (E.Pereira & Leme) L.B.Smith & W.J.Kress.
- 40-142b **A. triticina** var. **capensis** L.B.Smith.
= *A. pineliana* (Brongniart ex Planchon) Baker. See Wendt (1993, p.61).
- 40-143h **A. nudicaulis** var. **plurifolia** E.Pereira, Bradea 1:162. 1972. Brazil:Rio de Janeiro. [Holo:HB].
- 40-143i **A. nudicaulis** var. **capitata** Reitz, Sellowia 17:42. 1965. Brazil:Rio de Janeiro. [Holo:HBR].
- 40-149 **A. bromeliifolia** (Rudge) Beer.
See Till (1995, p.415).
- 40-154 **A. lateralis** L.B.Smith.
= *Disteganthus lateralis* Gouda, Brittonia 46:134-6. 1994.
- 40-155 **A. magdalenae** (André) André ex Baker.
See Holst (1994, p.149).
- 40-158 **A. strobilacea** L.B.Smith.
See Gross in J. Bromeliad Soc. 44:53-7. 1994.
- 40-171 **A. cariocae** L.B.Smith.
= *A. squarrosa* Baker. See Wendt (1993 p.95).

40.1 PODAECHMEA Mez.

- 40.1-1 **Podaechmea macvaughii** (L.B.Smith) L.B.Smith & W.J.Kress.
Previously cited as a synonym of *Aechmea macvaughii* L.B.Smith. See Luther & Sieff (1994).
= *Ursulaea macvaughii* (L.B.Smith) R.W.Read & H.U.Baensch, J. Bromeliad Soc. 44:207-9. 1994.

40.5 POTHUAVA Gaudichaud.

- 40.5-140.1 **P. roberto-anselmoei** (E.Pereira & Leme) L.B.Smith & W.J.Kress.
Previously cited as a synonym of *Aechmea roberto-anselmoei* E. Pereira & Leme. See Luther & Sieff (1994).
= *Aechmea ornata* Baker. See Wendt (1993, p.75).
- 40.5-141.1 **P. guarapariensis** (E.Pereira & Leme) L.B.Smith & W.J.Kress.
Previously cited as a synonym of *Aechmea guarapariensis* E. Pereira & Leme. See Luther & Sieff (1994).
= *Aechmea triticina* Mez. See Wendt (1993, p.69).
- 40.5-142b **P. triticina** var. **capensis** (L.B.Smith) L.B.Smith & W.J.Kress.
Previously cited as a synonym of *Aechmea triticina* var. *capensis* L.B.Smith. See Luther & Sieff (1994).
= *Aechmea pineliana* (Brongniart ex Planchon) Baker. See Wendt (1993, p.61).

40.7 CHEVALIERA Gaudichaud.

- 40.7-154 **C. lateralis** (L.B.Smith) L.B.Smith & W.J.Kress.
Previously cited as a synonym of *Aechmea lateralis* L.B.Smith. See Luther & Sieff (1994).
= *Disteganthus lateralis* (L.B.Smith) Gouda, Brittonia 46:134-6. 1994.
- 40.7-171 **C. cariocae** (L.B.Smith) L.B.Smith & W.J.Kress.
Previously cited as a synonym of *Aechmea cariocae* L.B.Smith. See Luther & Sieff (1994).
= *Aechmea squarrosa* Baker. See Wendt (1993, p.95).

41 QUESNELIA Gaudichaud.

- 41-6 **Q. edmundoi** L.B.Smith.
See Leme, Bromélia 1(2):28-9. 1994.

42 BILLBERGIA Thunberg.

- 42-3 **B. amoena** (Loddiges) Lindley.
SYN.: *B. amoena* var. *rubra* M.B.Foster.
- 42-3d **B. amoena** var. **rubra** M.B.Foster.
= *B. amoena* (Loddiges) Lindley. See Fontoura, Selbyana 15(2):79-81. 1994.
- 42-7 **B. nutans** H.Wendland ex Regel.
Lectotype (DR). See Till (1995, p.414).
- 42-19 **B. tweedieana** Baker.
SYN.: *B. tweedieana* var. *minor* L.B.Smith.
- 42-19c **B. tweedieana** var. **minor** L.B.Smith.
= *B. tweedieana* Baker. See Fontoura, Selbyana 15(2):79-81. 1994.
- 42-26 **B. pyramidalis** (Sims) Lindley.
SYN.: *B. pyramidalis* var. *vernica* E.Pereira.
See also Leme, Bromélia 2(2):24-5. 1995.
- 42-26c **B. pyramidalis** var. **vernica E.Pereira.
= *B. pyramidalis* (Sims) Lindley. See Fontoura, Selbyana 15(2):79-81. 1994.**

42.1 URSULAEA R.W.Read & H.U.Baensch, J. Bromeliad Soc. 44:205-11. 1994. Formerly aberrant members of *Aechmea* subgenus *Podaechmea*.

- 42.1-1 **U. macvaughii** (L.B.Smith) R.W.Read & H.U.Baensch, J. Bromeliad Soc. 44:207-9. 1994.
BASIONYM: *Aechmea macvaughii* L.B.Smith. Phytologia 10:481. 1964.
SYN.: *Podaechmea macvaughii* (L.B.Smith) L.B.Smith & W.J.Kress.
- 42.1-2 **U. tuitensis** (Magaña & E.J.Lott) R.W.Read & H.U.Baensch, J. Bromeliad Soc. 44:209-11. 1994.
BASIONYM: *Aechmea tuitensis* Magaña & E.J.Lott, Phytologia 59:221-3. 1986.

46 ANANAS Miller.

- 46-2 **A. ananassoides** (Baker) L.B.Smith.
See Leal & Medina, J. Bromeliad Soc. 45:152-8. 1995.
- 46-4 **A. parguazensis** Camargo & L.B.Smith.
See Leal & Medina, J. Bromeliad Soc. 45:152-8. 1995.

ACKNOWLEDGMENTS

We gratefully acknowledge Gregory Brown, Andrea Costa, Bruce Holst, Elton M.C. Leme, and Walter Till, all of whom have provided information or have read and commented on portions of the manuscript.

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INDEX TO DE REBUS BROMELIACEARUM II

(Entries in italics are taxa that have been synonymized)

7 ABROMEITIELLA

- 7-1 *A. brevifolia* 105
 7-2 *A. lorentziana* 105
 7-2.2 *A. lotteae* 105
 7-2.1 *A. scapigera* 105

40 AECHEMEA

- 40-101.1 *A. amorimii* 137
 40-61 *A. angustifolia* 137
 40-51 *A. aquilega* 137
 40-57 *A. araneosa* 137
 40-66 *A. brachyclada* 137
 40-26 *A. brassicoides* 137
 40-149 *A. bromeliifolia* 138
 40-138.2 *A. brueggeri* 137
 40-50.1 *A. callichroma* 137
 40-17.1 *A. capixabae* 137
 40-171 *A. cariocae* 138
 40-0 *A. columnaris* 136
 40-19.4 *A. dealbata* 137
 40-24.1 *A. esseri* 137
 40-19.3 *A. fasciata* 137
 40-92 *A. guarapariensis* 137
 40-3.1 *A. haltonii* 137
 40-154 *A. lateralis* 138
 40-80.2 *A. latifolia* 137
 40-98.2 *A. leonard-kentiana* 137
 40-56 *A. lingulata* 137
 40-1 *A. macvaughii* 136
 40-155 *A. magdalenae* 138
 40-90 *A. melinonii* 137
 40-143i *A. nudicaulis* var. *capitata* 138
 40-143h *A. nudicaulis* var. *plurifolia* 138
 40-140 *A. ornata* 137
 40-141 *A. pineliana* 137
 40-77.1 *A. ramusculosa* 137
 40-140.1 *A. roberto-anselmi* 137
 40-141.2 *A. roberto-seidelii* 138
 40-25.5 *A. rubrolilacina* 137
 40-119 *A. smithiorum* 137
 40-135 *A. squarrosa* 137
 40-158 *A. strobilacea* 138
 40-142 *A. triticina* 138
 40-142b *A. triticina* var. *capensis* 138
 40-1.1 *A. tuitensis* 136
 40-10d *A. weillbachii* var. *albipetala* 137

15.1 ALCANTAREA

- 15.1-15 *A. benzingii* 128
 15.1-7 *A. brasiliensis* 128
 15.1-9 *A. burle-mar. ii* 128
 15.1-12 *A. duarteana* 128
 15.1-11 *A. edmundoi* 128

Alcantarea (cont.)

- 15.1-1 *A. extensa* 128
 15.1-14 *A. farneyi* 128
 15.1-2 *A. geniculata* 128
 15.1-13 *A. hatschbachii* 128
 15.1-10 *A. imperialis* 128
 15.1-5 *A. nahoumii* 128
 15.1-3 *A. neavaresii* 128
 15.1-4 *A. odorata* 128
 15.1-6 *A. regina* 128
 15.1-8 *A. vinicolor* 128

46 ANANAS

- 46-2 *A. ananassoides* 138
 46-4 *A. parguazensis* 138

42 BILLBERGIA

- 42-3 *B. amoena* 138
 42-3d *B. amoena* var. *rubra* 138
 42-7 *B. nutans* 138
 42-26 *B. pyramidalis* 138
 42-26c *B. pyramidalis* var. *vernica* 138
 42-19 *B. tweediana* 138
 42-19c *B. tweediana* var. *minor* 138

9 BROCCINIA

- 9-6 *B. bernardii* 107
 9-13 *B. cryptantha* 107
 cm9-18 *B. hechtoides* 107
 9-10 *B. melanacra* 107
 9-11 *B. micrantha* 107
 9-5.1 *B. oliva-estevae* 106
 9-17 *B. reducta* 107
 9-16 *B. secunda* 107
 9-15 *B. tatei* 107

31 BROMELIA

- 31-27.1 *B. estevesii* 136
 31-26.1 *B. flemingii* 136
 31-46.2 *B. granvillei* 136

36 CANISTRUM

- 36-4.3 *C. auratum* 136

40.7 CHEVALIERA

- 40.7-171 *C. cariocae* 138
 40.7-154 *C. lateralis* 138

4 CONNELLIA

- 4-3.1 C. nahoumii 104

27 CRYPTANTHUS

- 27-5.6 C. capitatus 135
 27-4.5 C. caracensis 135
 27-8.6 C. correia-araujoi 135
 27-7.1 C. delicatus 135
 27-8.7 C. dorothyae 135
 27-3 C. duartei 135
 27-6.6 C. fernseeoides 135
 27-6.4 C. odoratissimus 135
 27-6.3 C. roberto-kautskyi 135
 27-6.2 C. scaposus 135
 27-7 C. sinuosus 135
 27-19.2 C. vexatus 135
 27-8.5 C. warren-loosei 135
 27-6.5 C. whitmanii 135

6 DEUTEROCOHNIA

- 6-1 D. brevifolia 105
 6-11 D. brevispicata 105
 6-13 D. chrysantha 105
 6-5 D. digitata 105
 6-9 D. glandulosa 105
 6-8 D. haumanii 105
 6-6 D. longipetala 105
 6-2 D. lorentziana 105
 6-3 D. lotteae 105
 6-7 D. meziana 105
 6-7b D. meziana var. carmineoviridiflora 105
 6-6.1 D. recurvipetala 105
 6-4 D. scapigera 105
 6-10 D. schreiteri 105
 6-12 D. strobilifera 105
 6-12b D. strobilifera var. inermis 105

39 DISTEGANTHUS

- 39-2.1 D. lateralis 136

12 DYCKIA

- 12-31.1 D. excelsa 107

2 ENCHOLIRIUM

- 2-2.1 E. longiflorum 104
 2-1 E. spectabile 104

3 FOSTERELLA

- 3-11.2 F. hatschbachii 104
 3-11.1 F. windischii 104

29 GREIGIA

- 29-19 G. landbeckii 136

16 GUZMANIA

- 16-99.1 G. alcantareoides 133
 16-104.2 G. bergii 134
 16-70.1 G. corniculata 133
 16-80.3 G. elvallensis 133
 16-42.1 G. fuquae 133
 16-55.1 G. henniae 133
 16-119.2 G. herrerae 134
 16-112.2 G. inexpectata 134
 16-92 G. monostachia 133
 16-1.01 G. plumieri 133
 16-104.3 G. pseudospectabilis 134
 16-119.1 G. scandens 134
 16-23 G. steyermarkii 133
 16-99 G. wittmackii 133

13 HECHTIA

- 13-1.1 H. gayi 108
 13-39.1 H. glauca 108
 13-40.1 H. iltisii 108
 13-14 H. stenopetala 108

38 HOHENBERGIA

- 38-41 H. andina 136
 38-21.2 H. burle-mar. ii 136
 38-39 H. penduliflora 136

5.2 LINDMANIA

- 5.2-14.1 L. candelabriflora 104
 5.2-23.3 L. marahuacae 104
 5.2-18.1 L. oliva-estevae 104
 5.2-23.2 L. terramarae 104

17 MEZOBROMELIA

- 17-1.2 M. capituligera 134
 17-2.5 M. hospitalis 134
 17-2.6 M. magdalenae 134

11 NAVIA

- 11-51.3 N. berryana 107
 11-47.1 N. delascionis 107
 11-8 N. diffusa 107
 11-57.1 N. ebracteata 107
 11-38.3 N. glandulifera 107
 11-5 N. gracilis 107
 11-20.1 N. grafi 107
 11-42.1 N. iosothrix 107
 11-68.2 N. mosaica 107
 11-28 N. nubicola 107

Navia (cont.)

- 11-16.1 N. parwana 107
 11-39.1 N. pedemontana 107
 11-20 N. phelpsi 107
 11-8.2 N. platyphylla 107
 11-3.1 N. plowmanii 107
 11-11 N. ramosa 107
 11-10 N. reflexa 107
 11-15.1 N. tentaculata 107

26 NEOREGELIA

- 26-58.1 N. alvimii 134
 26-58.1b N. alvimii var. donatoi 135
 26-52.1 N. burle-mar. ii 134
 26-52.1(2) N. burle-mar. ii ssp. meeana 134
 26-39.1 N. crispata 134
 26-16.1 N. elmoreana 134
 26-13 N. fosteriana 134
 26-13.2 N. lactea 134
 26-54 N. magdalenae 134
 26-11 N. mooreana 134
 26-50.1 N. nivea 134
 26-10 N. peruviana 134
 26-41.1 N. petropolitana 134
 26-58.2 N. rubrovittata 135
 26-21.1 N. sanguinea 134
 26-26 N. wilsoniana 134

28 NIDULARIUM

- 28-8.2 N. campo-alagrense 135
 28-7.1 N. espirito-santense 135
 28-8.3 N. exostigmum 135
 28-6.1 N. fradense 135
 28-21.4 N. gracile 135
 28-23.2 N. jonesianum 135
 28-23.1 N. kautskyanum 135
 28-2.6 N. linehamii 135
 28-2.5 N. lyman-smithii 135
 28-21.3 N. meeanum 135
 28-12.1 N. picinguabense 135

25 OCHAGAVIA

- 25-1 O. elegans 134

34 ORTHOPHYTUM

- 34-5.1 O. braunii 136
 34-17.1 O. gurkenii 136
 34-4.1 O. hatschbachii 136
 34-8.1 O. suerei 136
 34-2.3 O. suphutii 136

8.1 PEPINIA

- 8.1-8 P. armata 106
 8.1-9 P. breweri 106
 8.1-6 P. bulbosa 106
 8.1-19.1 P. cristalinensis 106
 8.1-24.3 P. leopoldii 106
 8.1-33.2 P. tatzyanae 106
 8.1-3 P. wurdackii 106

8 PITCAIRNIA

- 8-201 P. arcuata 106
 8-9 P. breweri 106
 8-60.1 P. calcicola 106
 8-16.1 P. cana 106
 8-201.1 P. clarkii 106
 8-195.3 P. croatii 106
 8-230 P. cylindrostachya 106
 8-5.1 P. graniticola 106
 8-57 P. halophila 106
 8-195.2 P. lindae 106
 8-200 P. oblanceolata 106
 8-213 P. ochroleuca 106
 8-16.2 P. phelpsi 106
 8-163 P. reflexiflora 106
 8-163c P. reflexiflora var. longipetala 106
 8-235 P. tuerckheimii 106
 8-235b P. tuerckheimii var. macrolepis 106
 8-101 P. violascens 106
 8-101b P. violascens var. bogneri 106
 8-194 P. wendlandii 106
 8-3 P. wurdackii 105

40.1 PODAECHMEA

- 40.1-1 P. macvaughii 138

40.5 POTHUAVA

- 40.5-141.1 P. guarapariensis 138
 40.5-140.1 P. roberto-anselmoei 138
 40.5-142b P. triticina var. capensis 138

1 PUYA

- 1-147.2 P. butcheriana 104
 1-50 P. phelpsi 104
 1-147.1 P. prosanae 104
 1-59.1 P. robin-fosteri 104

41 QUESNELIA

- 41-6 Q. edmundoi 139

14.1 RACINAEAE

- 14.1-41 R. adpressa 119
 14.1-41(2) R. adpressa ssp. orthiantha 119
 14.1-10 R. adscendens 118
 14.1-52 R. aerisicola 120
 14.1-19 R. almeriae 118
 14.1-38 R. blassii 119
 14.1-54 R. commixa 120
 14.1-48 R. contorta 120
 14.1-4 R. crispa 117
 14.1-40 R. cuspidata 119
 14.1-24 R. dielsii 118
 14.1-22 R. diffusa 118
 14.1-30 R. domingos-martinsii 119
 14.1-11 R. elegans 118
 14.1-56 R. euryelytra 121
 14.1-17 R. fawcettii 118
 14.1-42 R. flexuosa 119
 14.1-57 R. fraseri 121
 14.1-9 R. ghiesbreghtii 117
 14.1-8 R. gilmarinae 117
 14.1-27 R. hauggiae 119
 14.1-18 R. homostachya 118
 14.1-12 R. inconspicua 118
 14.1-31 R. insularis 119
 14.1-31b R. insularis var. latilamina 119
 14.1-50 R. jenmanii 120
 14.1-39 R. kalliantha 119
 14.1-0 R. laminata 117
 14.1-14 R. lescailliei 118
 14.1-43 R. lyman-smithiana 119
 14.1-29 R. membranacifolia 119
 14.1-35 R. michelii 119
 14.1-45 R. miniata 120
 14.1-20 R. monticola 118
 14.1-32 R. multiflora 119
 14.1-32b R. multiflora var. decipiens 119
 14.1-32c R. multiflora var. tomentosa 119
 14.1-37 R. nervibractea 119
 14.1-34 R. pallidoflavens 119
 14.1-36 R. pardina 119
 14.1-55 R. parviflora 120
 14.1-55b R. parviflora var. e. pansa 121
 14.1-58 R. pectinata 121
 14.1-23 R. pendulispica 118
 14.1-49 R. penlandii 120
 14.1-49b R. penlandii var. pedunculata 120
 14.1-47 R. pseudotetrantha 120
 14.1-7 R. pugiformis 117
 14.1-21 R. quadripinnata 118
 14.1-13 R. riocreu. ii 118
 14.1-51 R. ropalocarpa 120
 14.1-16 R. rothschuhiana 118
 14.1-53 R. sanctae-martae 120
 14.1-46 R. schumanniana 120
 14.1-2 R. seemannii 117
 14.1-26 R. sinuosa 118
 14.1-26b R. sinuosa var. quirozii 119

Racinaea (cont.)

- 14.1-15 R. spiculosa 118
 14.1-15c R. spiculosa var. micrantha 118
 14.1-15d R. spiculosa var. stenoglossa 118
 14.1-15b R. spiculosa var. ustulata 118
 14.1-3 R. steyermarkii 117
 14.1-25 R. subalata 118
 14.1-33 R. tandapiana 119
 14.1-6 R. tenuispica 117
 14.1-44 R. tetrantha 119
 14.1-44b R. tetrantha var. aurantiaca 120
 14.1-44g R. tetrantha var. caribaea 120
 14.1-44c R. tetrantha var. densiflora 120
 14.1-44e R. tetrantha var. miniata 120
 14.1-44f R. tetrantha var. ramosior 120
 14.1-44d R. tetrantha var. scarlatina 120
 14.1-1 R. trapeziformis 117
 14.1-28 R. tripinnata 119
 14.1-5 R. undulifolia 117

14 TILLANDSIA

- 14-264 T. achyrostachys 112
 14-264b T. achyrostachys var. stenolepis 112
 14-287 T. acostae 112
 14-389 T. adpressa 116
 14-389d T. adpressa var. miniata 116
 14-389b T. adpressa var. orthiantha 116
 14-389c T. adpressa var. tonduziana 116
 14-363 T. adscendens 114
 14-396 T. aerisicola 117
 14-372.1 T. almeriae 114
 14-89 T. ampla 110
 14-229 T. andicola 111
 14-245 T. andreana 112
 14-0 T. andreatae 108
 14-83 T. arcuans 110
 14-83b T. arcuans var. naundorffiae 110
 14-0 T. arpcalyx 108
 14-37.1 T. australis 110
 14-0 T. azuayensis 108
 14-388 T. bakeri 116
 14-351 T. baliophylla 113
 14-0 T. barclayana 108
 14-282.8 T. beutelspacheri 112
 14-386 T. blassii 116
 14-0 T. boeghii 108
 14-330 T. brachycaulos 113
 14-330.2 T. bradeana 113
 14-139.3 T. buchlohii 110
 14-176.2 T. burle-marxii 111
 14-267.1 T. callichroma 112
 14-232 T. capillaris 111
 14-332b T. capitata var. guzmanoides 113
 14-390 T. caribaea 116
 14-0 T. castaneobulbosa 108

Tillandsia (cont.)

- 14-0 T. cathcartii 108
 14-0 T. cereicola 108
 14-98b T. chartacea var. peruviana 110
 14-74.1 T. coinaensis 110
 14-398 T. commixa 117
 14-392 T. contorta 116
 14-339.1 T. cossonii 113
 14-358 T. crispa 113
 14-0 T. curvispica 108
 14-387 T. cuspidata 116
 14-29 T. deppeana 110
 14-105.2 T. dexteri 110
 14-376.1 T. dielsii 115
 14-375 T. diffusa 115
 14-380.1 T. domingos-martinsii 115
 14-0 T. drewii 108
 14-125 T. edithiae 110
 14-341 T. eizii 113
 14-364 T. elegans 114
 14-47 T. excelsa 110
 14-282f T. fasciculata var. densispica 112
 14-282a T. fasciculata var. fasciculata 112
 14-282i T. fasciculata var. unispica 112
 14-371 T. fawcettii 114
 14-400 T. fraseri 117
 14-302.1 T. fresnilloensis 112
 14-116 T. gayi 110
 14-362 T. ghiesbreghtii 114
 14-361 T. gilmarinae 114
 14-353 T. grandis 113
 14-277.5 T. guenther-nolleri 112
 14-0 T. harmsiana 108
 14-378.1 T. hauggiae 115
 14-146.3 T. hegeri 110
 14-0 T. hitchcockiana 108
 14-372 T. homostachya 114
 14-365 T. inconspicua 114
 14-0 T. incurva 109
 14-381 T. insularis 115
 14-381b T. insularis var. latilamina 115
 14-246e T. ionantha var. stricta 112
 14-246eii T. ionantha var. stricta forma fastigiata 112
 14-172 T. ixioides 111
 14-330.3 T. kammii 113
 14-394 T. jenmanii 117
 14-232.2 T. kuehhasii 111
 14-6 T. lajensis 110
 14-114.2 T. laminata 110
 14-401 T. laminata 117
 14-139 T. latifolia 110
 14-139c T. latifolia var. divaricata 110
 14-244.1 T. laui 112
 14-340.2 T. lautneri 113
 14-170.1 T. leonamiana 111
 14-367 T. lescailliei 114
 14-0 T. limonensis 109

Tillandsia (cont.)

- 14-39.1 T. makrinii 110
 14-274.3 T. marabascoensis 112
 14-40.1 T. marcalaensis 110
 14-205.1 T. marconae 111
 14-340.3 T. mateoensis 113
 14-380 T. membranacifolia 115
 14-170b T. meridionalis var. subsecundifolia 111
 14-384 T. michelii 115
 14-178.3 T. milagrensis 111
 14-373 T. monticola 114
 14-162.1 T. muhriae 111
 14-151.2 T. muhrii 110
 14-241 T. multicaulis 112
 14-382 T. multiflora 115
 14-382b T. multiflora var. decipiens 115
 14-382c T. multiflora var. tomentosa 115
 14-3.1 T. naundorffiae 109
 14-385.1 T. nervibractea 116
 14-251.2 T. occulta 112
 14-0 T. olmosana 109
 14-0b T. olmosana var. pachamamae 109
 14-205 T. paleacea 111
 14-383 T. pallidoflavens 115
 14-297.1 T. pamelaie 112
 14-352 T. paniculata 113
 14-385 T. pardina 115
 14-399 T. parviflora 117
 14-399b T. parviflora var. expansa 117
 14-0 T. patula 109
 14-325.1 T. paucifolia 113
 14-402 T. pectinata 117
 14-219.1 T. pedicellata 111
 14-0 T. penduliscapa 109
 14-376 T. pendulispica 115
 14-393 T. penlandii 116
 14-393b T. penlandii var. pedunculata 116
 14-0 T. pereziana 109
 14-0 T. peruviana 109
 14-0 T. petraea 109
 14-336 T. plagiotropica 113
 14-0 T. porphyrocraspeda 109
 14-391.1 T. pseudotetrantha 116
 14-360 T. pugiformis 114
 14-208 T. purpurea 111
 14-374 T. quadripinnata 115
 14-143 T. queroensis 110
 14-151.4 T. ramellae 111
 14-155.2 T. reclinata 111
 14-231 T. recurvata 111
 14-170.2 T. recurvifolia 111
 14-170.2b T. recurvifolia var. subsecundifolia 111
 14-228 T. retorta 111
 14-332.1 T. rhodocephala 113

Tillandsia (cont.)

- 14-282.6 *T. rhomboidea* 112
 14-366 *T. riocrexii* 114
 14-0 *T. robusta* 109
 14-395 *T. ropalocarpa* 117
 14-370 *T. rothschuhiana* 114
 14-285.3 *T. rubripica* 112
 14-286.2 *T. salmonea* 112
 14-397 *T. sanctae-martae* 117
 14-347 *T. schiedeana* 113
 14-356 *T. seemannii* 113
 14-249.2 *T. setiformis* 112
 14-378 *T. sinuosa* 115
 14-378b *T. sinuosa* var. *quirozii* 115
 14-369 *T. spiculosa* 114
 14-369c *T. spiculosa* var. *micrantha* 114
 14-369d *T. spiculosa* var. *stenoglossa* 114
 14-369b *T. spiculosa* var. *ustulata* 114
 14-368 *T. stenoglossa* 114
 14-15c *T. stenoura* var. *mauroi* 110
 14-357 *T. steyermarkii* 113
 14-175aii *T. stricta* forma *nivea* 111
 14-0 *T. strobilae* 109
 14-377 *T. subalata* 115
 14-314 *T. subulifera* 113
 14-268.3b *T. supermexicana* var. *pendula* 112
 14-268.3c *T. supermexicana* var. *saxicola* 112
 14-382.1 *T. tandapiana* 115
 14-234.1 *T. taxcoensis* 111
 14-226.2 *T. tenebra* 111
 14-359 *T. tenuispica* 114
 14-0 *T. tequendamae* 109
 14-391 *T. tetrantha* 116
 14-391b *T. tetrantha* var. *aurantiaca* 116
 14-391g *T. tetrantha* var. *caribaea* 116
 14-391c *T. tetrantha* var. *densiflora* 116
 14-391e *T. tetrantha* var. *miniata* 116
 14-391f *T. tetrantha* var. *ramosior* 116
 14-391d *T. tetrantha* var. *scarlatina* 116
 14-171.2 *T. thiekenii* 111
 14-0 *T. tillandsioides* 109
 14-244.3 *T. tillii* 112
 14-355 *T. trapeziformis* 113
 14-297.2 *T. trauneri* 112
 14-379 *T. tripinnata* 115
 14-358.1 *T. undulifolia* 113
 14-233 *T. usneoides* 111
 14-306(1)i *T. utriculata* ssp. *utriculata* forma *utriculata* 113
 14-330.4 *T. velutina* 113
 14-267.2 *T. ventanaensis* 112
 14-281.1 *T. verapazana* 112
 14-232.1 *T. virescens* 111
 14-354 *T. viridiflora* 113
 14-63 *T. werckleana* 110
 14-0 *T. werneriana* 109

Tillandsia (cont.)

- 14-258 *T. xerographica* 112
 14-167(2) *T. xiphioides* ssp. *prolata* 111
 14-0 *T. yaconorensis* 109
 14-146.1b *T. zecheri* var. *cafayatisensis* 110
 14-146.1aii *T. zecheri* var. *zecheri* forma *brealitoensis* 110

42.1 URSALAE

- 42.1-1 *U. macvaughii* 138
 42.1-2 *U. tuitensis* 138

15 VRIESEA

- 15-43 *V. acuminata* 122
 15-20.1 *V. altomacaensis* 121
 15-100.3 *V. amadoi* 123
 15-69 *V. amazonica* 122
 15-105 *V. ampla* 123
 15-228.1 *V. andreetae* 127
 15-139 *V. antillana* 125
 15-48 *V. apiculata* 122
 15-223.1 *V. arachnoidea* 126
 15-235 *V. arpcaly.* 127
 15-150.1 *V. attenuata* 125
 15-20.2 *V. bahiana* 121
 15-151 *V. balanophora* 125
 15-241 *V. barclayana* 127
 15-101 *V. bicolor* 123
 15-59b *V. bituminosa* var. *minor* 122
 15-166.1 *V. boeghii* 126
 15-183.2 *V. botafogensis* 126
 15-46 *V. brachyphylla* 122
 15-132 *V. bracteosa* 124
 15-246 *V. brasiliensis* 127
 15-79 *V. breedloveana* 122
 15-121 *V. broadwayi* 124
 15-47 *V. brunei* 122
 15-97 *V. burgeri* 123
 15-246.2 *V. burle-marxii* 127
 15-149 *V. capitata* 125
 15-127 *V. capituligera* 124
 15-127b *V. capituligera* var. *lutea* 124
 15-195c *V. carinata* var. *mangaratibensis* 126
 15-229.1 *V. castaneobulbosa* 127
 15-241.2 *V. cathartii* 127
 15-228 *V. cereicola* 126
 15-110 *V. chiapensis* 123
 15-138 *V. comata* 125
 15-82 *V. confusa* 123
 15-77 *V. cornuscervi* 122
 15-3 *V. cowellii* 121
 15-128 *V. crassiflora* 124
 15-241.1 *V. curvispica* 127
 15-130 *V. cylindracea* 124
 15-231 *V. cylindrica* 127

Vriesea (cont.)

- 15-200.4 *V. debilis* 126
 15-126.2 *V. diantha* 124
 15-126 *V. diffusa* 124
 15-67 *V. discolor* 122
 15-124 *V. dodsonii* 124
 15-134.1 *V. dressleri* 124
 15-166 *V. drewii* 126
 15-249 *V. duarteana* 128
 15-248.1 *V. edmundoi* 128
 15-242 *V. extensa* 127
 15-249.1 *V. farneyi* 128
 15-56b *V. fosteriana* var. *seideliana* 122
 15-200.6 *V. fradensis* 126
 15-244 *V. geniculata* 127
 15-247 *V. gibba* 127
 15-40 *V. gladioliflora* 122
 15-111 *V. graminifolia* 123
 15-18.1 *V. greenbergii* 121
 15-102 *V. guadelupensis* 123
 15-23 *V. haematina* 121
 15-129 *V. hainesiorum* 124
 15-151.1 *V. haltonii* 125
 15-108 *V. haplostachya* 123
 15-233 *V. harmsiana* 127
 15-249.2 *V. hatschbachii* 128
 15-35 *V. heliconioides* 121
 15-35b *V. heliconioides* var. *polysticha* 121
 15-83 *V. hieroglyphica* 123
 15-224 *V. hitchcockiana* 126
 15-16 *V. hospitalis* 121
 15-90 *V. hydrophora* 123
 15-142 *V. hygrometrica* 125
 15-142b *V. hygrometrica* var. *angustifolia* 125
 15-248 *V. imperialis* 127
 15-229 *V. incurva* 127
 15-147 *V. irazuensis* 125
 15-169 *V. jimenezii* 126
 15-140 *V. johnstonii* 125
 15-141.1 *V. kathayae* 125
 15-25 *V. killipiana* 121
 15-170.1 *V. koideae* 126
 15-81 *V. kupperiana* 123
 15-49 *V. lancifolia* 122
 15-179.2 *V. languida* 126
 15-28 *V. latissima* 121
 15-131 *V. leptopoda* 124
 15-136 *V. leucophylla* 125
 15-136b *V. leucophylla* var. *subtessellata* 125
 15-235.1 *V. limonensis* 127
 15-145 *V. lineata* 125
 15-151.2 *V. luis-gomezii* 125
 15-133.1 *V. lyman-smithii* 124
 15-41 *V. macrantha* 122
 15-119 *V. macrochlamys* 124

Vriesea (cont.)

- 15-17 *V. magdalenae* 121
 15-107 *V. marnier-lapostollei* 123
 15-59.1 *V. minor* 122
 15-55.2 *V. minuta* 122
 15-134 *V. montana* 124
 15-244.2 *V. nahoumii* 127
 15-71.1 *V. naundorffiae* 122
 15-133 *V. nephrolepis* 124
 15-132.1 *V. nocturna* 124
 15-141 *V. notata* 125
 15-61 *V. nutans* 122
 15-100.2 *V. ochracea* 123
 15-244.1 *V. odorata* 127
 15-230 *V. olmosana* 127
 15-230b *V. olmosana* var. *pachamamae* 127
 15-153 *V. orjuelae* 126
 15-148 *V. ororiensis* 125
 15-42 *V. ovandensis* 122
 15-96 *V. pachychlamys* 123
 15-118.1 *V. panamaensis* 124
 15-91 *V. pastuchoffiana* 123
 15-227 *V. patula* 126
 15-134.2 *V. patzeltii* 124
 15-134.2b *V. patzeltii* var. *panamaensis* 125
 15-143 *V. paupera* 125
 15-93 *V. pectinata* 123
 15-14 *V. pedicellata* 121
 15-227.1 *V. penduliscapa* 126
 15-237 *V. pereziana* 127
 15-170 *V. petraea* 126
 15-144 *V. picta* 125
 15-104 *V. pittieri* 123
 15-116 *V. platzmannii* 123
 15-0 *V. pleiosticha* 121
 15-38 *V. pycnantha* 122
 15-19 *V. ranifera* 121
 15-225 *V. rauhii* 126
 15-206 *V. recurvata* 126
 15-245 *V. regina* 127
 15-71 *V. ringens* 122
 15-226 *V. robusta* 126
 15-39 *V. rugosa* 122
 15-74(2) *V. ruschii* ssp. *leonii* 122
 15-232 *V. sagasteguii* 127
 15-200.5 *V. sandrae* 126
 15-85 *V. sanguinolenta* 123
 15-146 *V. sarcolepis* 125
 15-183 *V. saundersii* 126
 15-52.1 *V. sazimae* 122
 15-118 *V. schippii* 124
 15-157 *V. singuliflora* 126
 15-156 *V. sintenisii* 126
 15-155 *V. standleyi* 126
 15-150 *V. stenophylla* 125
 15-236.1 *V. strobilae* 127
 15-103 *V. subsecunda* 123

Vriesea (cont.)

15-85.1	<i>V. tarmaensis</i> 123
15-236	<i>V. tequendamae</i> 127
15-234	<i>V. tillandsioides</i> 127
15-98	<i>V. tonduziana</i> 123
15-66	<i>V. triflora</i> 122
15-31	<i>V. triligulata</i> 121
15-29	<i>V. turbinata</i> 121
15-18	<i>V. umbrosa</i> 121
15-129.1	<i>V. uxoris</i> 124
15-99	<i>V. van-hyningii</i> 123
15-117	<i>V. verrucosa</i> 124
15-129.2	<i>V. viatoris</i> 124
15-246.1	<i>V. vinicolor</i> 127
15-135	<i>V. violascens</i> 125
15-106	<i>V. viridiflora</i> 123
15-152	<i>V. viridis</i> 126
15-158	<i>V. vittata</i> 126
15-80	<i>V. werckleana</i> 123
15-154	<i>V. williamsii</i> 126
15-95	<i>V. woodsoniana</i> 123
15-234.1	<i>V. wuelfinghoffii</i> 127

15.2 WERAUHIA

15.2-23	<i>W. acuminata</i> 130
15.2-33	<i>W. ampla</i> 131
15.2-10	<i>W. apiculata</i> 129
15.2-63	<i>W. attenuata</i> 133
15.2-49	<i>W. balanophora</i> 132
15.2-32	<i>W. bicolor</i> 131
15.2-69	<i>W. bracteosa</i> 133
15.2-0	<i>W. breedloveana</i> 128
15.2-17	<i>W. broadwayi</i> 130
15.2-24	<i>W. brunei</i> 130
15.2-29	<i>W. burgeri</i> 130
15.2-70	<i>W. capitata</i> 133
15.2-0	<i>W. chiapensis</i> 129
15.2-62	<i>W. comata</i> 133
15.2-0	<i>W. cornuscervi</i> 129
15.2-57	<i>W. cowellii</i> 132
15.2-38	<i>W. diantha</i> 131
15.2-0	<i>W. dodsonii</i> 129
15.2-41	<i>W. dressleri</i> 131
15.2-5	<i>W. gibba</i> 129
15.2-3	<i>W. gigantea</i> 129
15.2-19	<i>W. gladioliflora</i> 130
15.2-9	<i>W. graminifolia</i> 129
15.2-39	<i>W. greenbergii</i> 131
15.2-20	<i>W. guadelupensis</i> 130
15.2-53	<i>W. hainesiorum</i> 132
15.2-50	<i>W. haltonii</i> 132
15.2-18	<i>W. haplostachya</i> 130
15.2-65	<i>W. hygrometrica</i> 133
15.2-65	<i>W. hygrometrica</i> 133

Werauhia (cont.)

15.2-68	<i>W. kathyae</i> 133
15.2-2	<i>W. kupperiana</i> 129
15.2-43	<i>W. latissima</i> 131
15.2-36	<i>W. laxa</i> 131
15.2-54	<i>W. leucophylla</i> 132
15.2-51	<i>W. luis-gomezii</i> 132
15.2-44	<i>W. lyman-smithii</i> 131
15.2-25	<i>W. macrantha</i> 130
15.2-13	<i>W. marnier-lapostollei</i> 130
15.2-45	<i>W. nephrolepis</i> 132
15.2-67	<i>W. notata</i> 133
15.2-0	<i>W. nutans</i> 129
15.2-31	<i>W. ochracea</i> 131
15.2-60	<i>W. orjuelae</i> 132
15.2-46	<i>W. ororiensis</i> 132
15.2-0	<i>W. ovandensis</i> 129
15.2-11	<i>W. panamaensis</i> 129
15.2-37	<i>W. panniculata</i> 131
15.2-40	<i>W. patzeltii</i> 131
15.2-40b	<i>W. patzeltii</i> ssp. <i>panamaensis</i> 131
15.2-66	<i>W. paupera</i> 133
15.2-14	<i>W. pectinata</i> 130
15.2-34	<i>W. pedicellata</i> 131
15.2-58	<i>W. picta</i> 132
15.2-30	<i>W. pittieri</i> 130
15.2-22	<i>W. pycnantha</i> 130
15.2-7	<i>W. ringens</i> 129
15.2-35	<i>W. rubra</i> 131
15.2-21	<i>W. rugosa</i> 130
15.2-4	<i>W. sanguinolenta</i> 129
15.2-64	<i>W. singuliflora</i> 133
15.2-47	<i>W. sintenisii</i> 132
15.2-61	<i>W. stenophylla</i> 132
15.2-15	<i>W. subsecunda</i> 130
15.2-6	<i>W. tarmaensis</i> 129
15.2-27	<i>W. tonduziana</i> 130
15.2-42	<i>W. umbrosa</i> 131
15.2-48	<i>W. urbaniana</i> 132
15.2-56	<i>W. uxoris</i> 132
15.2-26	<i>W. van-hyningii</i> 130
15.2-12	<i>W. verrucosa</i> 130
15.2-55	<i>W. viatoris</i> 132
15.2-16	<i>W. viridiflora</i> 130
15.2-52	<i>W. viridis</i> 132
15.2-8	<i>W. vittata</i> 129
15.2-1	<i>W. werckleana</i> 129
15.2-59	<i>W. williamsii</i> 132
15.2-28	<i>W. woodsoniana</i> 130

37 WITTROCKIA

37-1.2	<i>W. echinata</i> 136
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