

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 infraspecific 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. phelpisiae** L.B.Smith.
= *Pitcairnia phelpisiae* (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** Ibisch & E.Gross, J. Bromeliad Soc. 43:211-5. 1993. Bolivia:Cochabamba. [Holo:HEID; Iso:LBP].
- 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 omittance 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, Bromélia 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. phelpisiae** (L.B.Smith) B.Holst & L.B.Smith, J. Bromeliad Soc. 43:256. 1993. BASIONYM: *Puya phelpisiae* 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, Bromélia 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, Bromélia 1(3):6-8. 1994. Venezuela:Amazonas. [Holo: BR].
- 8.1-33.2 **P. tatzyanæ** H.Luther, Bromélia 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-Esteve, J. Bromeliad Soc. 44:243-6. 1994.
- 9-13 **B. cryptantha** L.B.Smith.
= *B. hechtioides* 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. hechtioides** 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. phelpsiæ** L.B.Smith.
SYN.: *N. grafii* Steyermark & B.Holst.
- 11-20.1 **N. grafii** Steyermark & B.Holst.
= *N. phelpsiæ* 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. andreettae** (Rauh) J.R.Grant, Phytologia 75:170-5. 1993.
BASIONYM: *Vriesea andreetae* Rauh. Trop. Subtrop. Pflanzenwelt. 43:22-8. 1983.
= *Vriesea andreettae* 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.
- 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.
- 14-146.1a **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. **cafayatensis** Palací & G.K.Brown, J. Bromeliad Soc. 44:107-16. 1994. Argentina:Salta. [Holo:MCNS; Iso:RM].
 "T. cafayatensis" 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. cafayatensis" in Luther & Sieff (1994).
 = *T. zecheri* var. *cafayatensis* 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. muhriae** 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).
- 14-175aai **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:Durango [Holo:WU].
- 14-268.3b **T. supermexicana** var. **pendula** L.Hromadnik, Bromelie 1993(2):49-50. 1993. Mexico: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 Verapaz. [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-Basañez, 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:Oaxaca. [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:Huehuetenango. [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); Chazáro & 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. aerisincola** (Mez) Mez.
= *Racinaea aerisincola* (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-martinsis** (Rauh) J.R.Grant, Phytologia 74:429-30. 1993.
BASIONYM: *Tillandsia domingos-martinsis* 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. aerisicola** (Mez) M.A.Spencer & L.B.Smith, Phytologia 74:157. 1993.
 BASIONYM: *Vriesea aerisicola* Mez in Martius, Fl. Bras. 3:555. 1894.
 SYN.: *Tillandsia aerisicola* (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 Ferreira 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 & Kerbaux, 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); Utey (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); Utey (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, Bromelia 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) Utley.
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.Utley.
= *Werauhia uxoris* (J.Utley) J.R.Grant. See Grant (1995a, p.48).
- 15-129.2 **V. viectoris** J.Utley.
= *Werauhia viectoris* (J.Utley) J.R.Grant. See Grant (1995a, p.48).
- 15-130 **V. cylindracea** (Suessenguth & Geoppinger) 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.Utley.
= *Werauhia lyman-smithii* (J.Utley) 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.Utley) J.R.Grant. See Grant (1995a, p.42).

- 15-134.2b **V. patzeltii** var. **panamaensis** Rauh.
= *Werauhia greenbergii* (J.Utley) J.R.Grant. See Grant (1995b, p.121); Grant (1995a, p.47); Utley (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.Utley.
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.Utley.
= *Werauhia kathyae* (J.Utley) 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.Utley.
= *Werauhia luis-gomezii* (J.Utley) 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); Uteley (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 porphyrocraspeda* 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. strobeliae** Rauh.
SYN.: *Tillandsia strobeliae* (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. brasiliiana** L.B.Smith.
= *Alcantarea brasiliiana* (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. nevaresii** 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. brasiliana** (L.B.Smith) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:12. 1995.
BASIONYM: *Vriesea brasiliana* 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. 1005.
 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 & Geoppinger) 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. vietoris** (J.Utley) J.R.Grant, Trop. Subtrop. Pflanzenwelt 91:48. 1995.
 BASIONYM: *Vriesea vietoris* 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, Bromélia 3(1):8-12. 1996. Panama:Coclé. [Holo:MO].
See also Luther in Bromélia 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 supthutii* 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-araujoi** 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:HBR].
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. kautskyanum** 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. weilbachii** 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:CE-PEC; 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.
- 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-anselmoei* E.Pereira & Leme.
SYN.: *Pothuava roberto-anselmoei* (E.Pereira & Leme) L.B.Smith & W.J.Kress.
- 40-140.1 **A. roberto-anselmoei** 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-anselmoi** (E.Pereira & Leme) L.B.Smith & W.J.Kress.
Previously cited as a synonym of *Aechmea roberto-anselmoi* 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. paraguayensis** Camargo & L.B.Smith.
See Leal & Medina, J. Bromeliad Soc. 45:152-8. 1995.

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