

## New combinations and names in Andean *Pitcairnia*, *Tillandsia*, and *Werauhia*

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*Abstract* – The following eight new combinations are made based on transfers from *Pepinia* and *Vriesea*: *Pitcairnia holstii* (H. Luther) J. R. Grant, *P. minicorallina* (H. Luther) J. R. Grant, *P. neeana* (L. B. Sm. ex H. Luther) J. R. Grant, *P. peruana* (H. Luther) J. R. Grant, *Tillandsia appenii* (Rauh) J. R. Grant, *T. gruberi* (Ehlers) J. R. Grant, *T. lutheri* (Manzan. & W. Till) J. R. Grant, and *T. piepenbringii* (Rauh) J. R. Grant. Additionally, three new names are proposed: *Tillandsia frank-hasei* J. R. Grant to replace *Vriesea hasei* Ehlers, *T. walter-tillii* J. R. Grant to replace *V. tillii* Manzan., and *Werauhia rauhii* J. R. Grant to replace *V. patzeltii* Rauh var. *panamaensis* Rauh at the species rank.

*Key-words*: Bromeliaceae, new combinations, new names, *Pitcairnia*, *Vriesea*, *Werauhia*.

*Resumo* – O autor propõe oito novas combinações baseadas na transferência de espécies dos gêneros *Pepinia* e *Vriesea*, a saber: *Pitcairnia holstii* (H. Luther) J. R. Grant, *P. minicorallina* (H. Luther) J. R. Grant, *P. neeana* (L. B. Sm. ex H. Luther) J. R. Grant, *P. peruana* (H. Luther) J. R. Grant, *Tillandsia appenii* (Rauh) J. R. Grant, *T. gruberi* (Ehlers) J. R. Grant, *T. lutheri* (Manzan. & W. Till) J. R. Grant, e *T. piepenbringii* (Rauh) J. R. Grant. Além disso, são propostos três novos nomes: *Tillandsia frank-hasei* J. R. Grant, em substituição a *Vriesea hasei* Ehlers, *T. walter-tillii* J. R. Grant para substituir *V. tillii* Manzan. e *Werauhia rauhii* J. R. Grant para substituir, no status de espécie, *V. patzeltii* Rauh var. *panamaensis* Rauh.

*Palavras-chave*: Bromeliaceae, novas combinações, novos nomes, *Pitcairnia*, *Vriesea*, *Werauhia*

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## PITCAIRNIA

Taylor & Robinson (1999) clearly demonstrated that *Pepinia* has no characters to consistently separate it from *Pitcairnia*. The seed characters and foliar morphology previously used to differentiate *Pepinia* from *Pitcairnia* are variable. Recognition of *Pepinia* as a genus is not warranted, and recently described species are here transferred to *Pitcairnia*. *Pitcairnia* needs a serious taxonomic revision, and molecular studies could help elucidate possible infrageneric groups.

1. *Pitcairnia holstii* (H. Luther) J. R. Grant, comb. nov. Basionym: *Pepinia holstii* H. Luther, J. Bromeliad Soc. 51 (2): 71. 2001. Type: Peru. Cuzco: Cordillera de Vilcabamba, 950-1000 m, Holst & Luther 7277 (holotype SEL; isotype USM).

2. *Pitcairnia minicorallina* (H. Luther) J. R. Grant, comb. nov. Basionym: *Pepinia minicorallina* H. Luther, Selbyana 21 (1,2): 130. 2000. Type: Peru. Amazonas: Bagua, Tau Mujaji, 800 m, 23 Oct 1997, Rojas et al. 456 (holotype MO).

3. *Pitcairnia neeana* (L. B. Sm. ex H. Luther) J. R. Grant, comb. nov. Basionym: *Pepinia neeana* L. B. Sm. ex H. Luther, Selbyana 23 (1): 46. 2002. Type: Brazil. Rondônia: 5 km NE of Guajara Mirim, 250 m, 10 April 1987, M. Nee 34712 (holotype INPA; isotypes NY, US).

4. *Pitcairnia peruana* (H. Luther) J. R. Grant, comb. nov. Basionym: *Pepinia peruviana* H. Luther, Selbyana 23 (1): 49. 2002. Type: Peru. Cajamarca: San Ignacio, San José de Lourdes, 2000 m, 18 March 1997, Campos & Corrales 3556 (holotype SEL; isotype MO).

## TILLANDSIA

Following several previous articles where taxa unrelated to the type of *Vriesea* were shifted to *Tillandsia* from placement in *Vriesea* (Grant 1993; Grant 1995b), an additional twelve mostly Andean species are here returned or transferred. This continues an effort to improve the circumscription of the largely eastern Brazilian genus *Vriesea*. Further in-depth studies are fundamental to understand infrageneric groups within *Vriesea*.

5. *Tillandsia appenii* (Rauh) J. R. Grant, comb. nov.

Basionym: *Vriesea appenii* Rauh, Bromeliad Soc. Bull. 19: 111. 1969. Type: Peru. Piura: Abra Poculla, Rauh 15420 (holotype US).

6. *Tillandsia chontalensis* Baker, J. Bot. 25: 237. 1887. Synonym: *Vriesea chontalensis* (Baker) L. B. Sm., Contr. U. S. Natl. Herb. 29: 518. 1951. Type: Nicaragua. Chontales, Tate 413 (holotype BM).

7. *Tillandsia crenulipetala* Mez, Repert. Spec. Nov. Regni Veg. 16: 76. 1919. Synonym: *Vriesea crenulipetala* (Mez) L. B. Sm., Phytologia 5: 288. 1955. Type: Colombia. Magdalena: Santa Marta, H. H. Smith 2349 (holotype B; isotypes F, GH, K, PH, US).

8. *Tillandsia didistichoides* Mez, in C.DC., Monogr. phan. 9: 778. 1896. Synonym: *Vriesea didistichoides* (Mez) L. B. Sm., Phytologia 5: 281. 1955. Type: Trinidad, without exact locality, 1877-1880, Fendler 827 (Holotype BM).

9. *Tillandsia espinosae* L. B. Sm., Contr. U. S. Natl. Herb. 29: 498. 1951. Synonym: *Vriesea espinosae* (L. B. Sm.) Gilmartin, Phytologia 16: 163. 1968. Type: Ecuador. Loja: Sierra de la Toma, Huaico, Espinosa E-1205 (holotype GH).

10. *Tillandsia fragrans* André, Énum. Bromél.: 7. 1888. Synonym: *Vriesea fragrans* (André) L. B. Sm., Contr. U. S. Natl. Herb. 29: 443. 1951. Type: Colombia. Valle: Quebrada de Las Juntas, André 4397 (holotype K).

11. *Tillandsia frank-hasei* J. R. Grant, nom. nov. Based on: *Vriesea hasei* Ehlers, *Die Bromelie* 2/1998: 55. 1998. Type: Venezuela. Portuguesa: Sucre, Biscucuy, 2200 m, 17 Jan 1997, Hase Ven 97 n. 7.4 (holotype VEN; isotype WU). Not *Tillandsia hasei* Ehlers & L. Hrom., *Die Bromelie* 3/1996: 76. 1996. Type: Bolivia. Chuquisaca: Nor-Cinti, near Culpina, 10 February 1995, Hase et al. EB 951501 (holotype WU).

12. *Tillandsia gruberi* (Ehlers) J. R. Grant, comb. nov. Basionym: *Vriesea gruberi* Ehlers, *Die Bromelie* 1/1999: 10. 1999. Type: Colombia. Tolima: La Honda, 1992, Gruber s. n. (holotype COL).

13. *Tillandsia heterandra* André, Énum. Bromél.: 7. 1888. Synonym: *Vriesea heterandra* (André) L. B. Sm., Contr. U. S. Natl. Herb. 29: 443. 1951. Type: Colombia. Cundinamarca: Puente de Quetame,

Andes of Bogotá, Jan 1876, André 1213 (holotype K).

14. *Tillandsia lutheri* (Manzan. & W. Till) J. R. Grant, comb. nov. Basionym: *Vriesea lutheri* Manzan. & W. Till, J. Bromeliad Soc. 50: 169. 2000. Type: Ecuador. Zamora-Chinchipe, Podocarpus National Park, km 41.5 in the road Loja-Zamora, 2690m, 10 April 1997, Manzanares et al. 6340 (holotype QCNE).

15. *Tillandsia piepenbringii* (Rauh) J. R. Grant, comb. nov. Basionym: *Vriesea piepenbringii* Rauh, Trop. Subtrop. Pflanzenwelt 42: 12. 1983. Type: Peru. Amazonas: in valle fluminis Utcabamba prope Ingenio, Rauh 53548 (holotype HEID).

16. *Tillandsia walter-tillii* J. R. Grant, nom. nov. Based on: *Vriesea tillii* Manzan., J. Bromeliad Soc. 48 (4): 169. 1998. Type: Ecuador. Sucumbios: Gonzalo Pizarro, 1800 m, July 1994, Manzanares 5205 (holotype QCNE). Not *Tillandsia tillii* Ehlers, J. Bromeliad Soc. 42: 197. 1992. Type: Mexico. Jalisco: south of Puerto Vallarta in the Sierra el Tuito, 1600 m, 16 March 1990, Ehlers & Ehlers EM 901608 (holotype WU).

#### WERAUHIA

*Werauhia patzeltii* var. *panamensis* of Panama is here recognized as a distinct species from typical *Werauhia patzeltii* of Ecuador. *Werauhia rauhii* J. R. Grant is therefore established as a new name to replace *W. patzeltii* var. *panamensis* at the rank of species. This reverses the taxonomic change in Grant (1995a) following Utley (1994) where *W. patzeltii* var. *panamensis* was reduced to synonymy under *W. greenbergii* (Utley) J. R. Grant.

17. *Werauhia rauhii* J. R. Grant, nom. et stat. nov. Based on: *Vriesea patzeltii* Rauh var. *panamensis* Rauh, Trop. Subtrop. Pflanzenwelt 60: 86. 1987. Type: Panama. Panama: Cerro Jefe, 800 m, B.G.H. 48657, Dressler s.n. (holotype HEID). Synonym: *Werauhia patzeltii* subsp. *panamensis* (Rauh) J. R. Grant, Trop. Subtrop. Pflanzenwelt 91: 47. 1995. Not *Vriesea panamaensis* E. Gross & Rauh, Trop. & Subtrop. Pflanzenwelt 75: 42. 1990. Type: Panama. Panama: Cerro Jefe, 800 m, October 1977, Rauh 44555 (holotype HEID). Synonym: *Werauhia panamaensis* (E. Gross & Rauh) J. R. Grant, Trop. & Subtrop. Pflanzenwelt 91: 33. 1995.

#### ACKNOWLEDGMENTS

I thank Walter Till and Derek Butcher for carefully reviewing the manuscript and providing numerous suggestions.

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