

Supplementary Table 2. Previously published chromosome numbers in the subfamily Bromelioideae and Puyoideae used in this study. Numbers in brackets do not follow the genus pattern and/or are regarded as approximate by the author (indicated by “≈”) and were not considered in the statistical analyses. Nomenclature follows Gouda et al. (cont. updated). Names used in original publications are given in square brackets.

BROMELIOIDEAE			
Taxon	n	2n	References
<i>Acanthostachys</i> Link			
<i>A. strobilacea</i> (Schult. & Schult.f.) Klotzsch		50	Lindschau, 1933
<i>Aechmea</i> Ruiz & Pav.			
<i>A. aquilega</i> (Salisb.) Griseb.		50	Cotias-de-Oliveira et al. 2000; Gitaí et al., 2014
<i>A. bracteata</i> (Sw.) Griseb.		50	Lindschau, 1933; Gitaí et al., 2014
<i>A. bromeliifolia</i> (Rudge) Baker [also published as <i>Macrochordion tinctorium</i> De Vriese and <i>Aechmea conspicuarmata</i> Baker]		≈50 50	Taylor, 1925 Lindschau, 1933; Gitaí et al., 2005; Brown et al., 1997
<i>A. calyculata</i> (E.Morren) Baker	25	50	Palma-Silva, 2003; Palma-Silva et al., 2004
<i>A. coelestis</i> (K.Koch) E.Morren	25	50	Lindschau, 1933 Marchant, 1967
<i>A. eurycorymbus</i> Harms		(≈88)	Gitaí et al., 2014
<i>A. fasciata</i> (Lindl.) Baker	25		Marchant, 1967
<i>A. fasciata</i> var. <i>fasciata</i>	25		Marchant, 1967
<i>A. fendleri</i> André ex Mez		50	Gitaí et al., 2014
<i>A. filicaulis</i> (Griseb.) Mez	25		Marchant, 1967; Brown et al., 1984
<i>A. fulgens</i> Brongn.		50	Marchant, 1967
<i>A. fulgens</i> var. <i>fulgens</i>		50	Cotias-de-Oliveira et al., 2004
<i>A. fulgens</i> var. <i>discolor</i> (C.Morren) Brongn. ex Baker	25	50	Lindschau, 1933 Brown et al., 1997
<i>A. gamosepala</i> Wittm.		50	Palma-Silva 2003; Palma-Silva et al., 2004
<i>A. mertensii</i> (G.Mey.) Schult. & Schult.f.		≈50	Marchant, 1967
<i>A. ornata</i> (Gaudich.) Baker [also published as <i>Aechmea hystrix</i> E.Morren]		(54) 50	Lindschau, 1933 Gitaí et al., 2014
<i>A. recurvata</i> (Klotzsch) L.B.Sm.		50	Ceita et al., 2008
<i>A. sphaerocephala</i> (Gaudich.) Baker		50	Gitaí et al., 2014
<i>A. vallerandii</i> (Carrière) Erhardt, Götz & Seybold [published as <i>Streptocalyx poeppigii</i> Beer]	25		Marchant, 1967
<i>A. victoriana</i> L.B.Sm.	25		Marchant, 1967
<i>A. weilbachii</i> Didr.	25		Marchant, 1967
<i>Ananas</i> Mill.			
			For a review of <i>Ananas</i> chromosome numbers please see Matuszak-Renger et al., 2018; Online Resource 7
<i>Araeococcus</i> Brongn.			
<i>A. flagellifolius</i> Harms		50	Brown et al., 1997
<i>Billbergia</i> Thunb.			
<i>B. amoena</i> (Lodd.) Lindl. [published as <i>Billbergia speciosa</i> Thunb.]		(54)	Lindschau, 1933
<i>B. decora</i> Poepp. & Endl.		50	Marchant, 1967

<i>B. euphemiae</i> E.Morren		50	Sharma and Gosh, 1971
<i>B. euphemiae</i> var. <i>euphemiae</i>		50	Cotias-de-Oliveira et al., 2004
<i>B. horrida</i> Regel var. <i>tigrina</i> hort. ex Baker		50	Gitaí et al., 2014
<i>B. nutans</i> H.Wendl. ex Regel var. <i>nutans</i> [published as <i>Billbergia bonplandiana</i> Gaudich. ex Mez, <i>Billbergia minuta</i> Mez]	25	(54)	Lindschau, 1933 Marchant, 1967
<i>B. pallidiflora</i> Liebm.		50	Gitaí et al., 2014
<i>B. pyramidalis</i> (Sims) Lindl.	25	(54)	Lindschau, 1933 Marchant, 1967
<i>B. pyramidalis</i> var. <i>pyramidalis</i>		50	McWilliams, 1974
<i>B. pyramidalis</i> var. <i>striata</i> M.B.Foster		50	McWilliams, 1974
<i>Bromelia</i> L.			
<i>B. antiacantha</i> Bertol.		100	Gitaí et al., 2014
<i>B. goeldiana</i> L.B.Sm.		94	Lin et al., 1987
<i>B. karatas</i> L. [also published as <i>Bromelia plumieri</i> (E. Morren) L.B.Sm.]		50 50+1–2B	Éder-Silva et al., 2007 Cotias-de-Oliveira et al., 2000
<i>B. laciniosa</i> Mart. ex Schult. & Schult.f.		≈150	Cotias-de-Oliveira et al., 2000; Gitaí et al., 2005
<i>B. pinguin</i> L. [also published as <i>Bromelia fastuosa</i> Lindl.]	48	≈96–100	Collins and Kerns, 1931 Lindschau, 1933
<i>Canistropsis</i> Mez			
<i>C. billbergioides</i> (Schult. & Schult.f.) Leme		50	Bellintani et al., 2005
<i>C. microps</i> (E.Morren ex Mez) Leme [also published as <i>Aregelia microps</i> (E.Morren ex Mez) Mez]		(≈124–126) 50	Lindschau, 1933 Bellintani et al., 2005
<i>Canistrum</i> E. Morren			
<i>C. aurantiacum</i> E.Morren		50	Weiss, 1965
<i>C. fosterianum</i> L.B.Sm.		50	Bellintani et al., 2005
<i>Cryptanthus</i> Otto & A.Dietr.			
<i>C. acaulis</i> (Lindl.) Beer.	17 (≈17)	36 34	Lindschau, 1933 Matsuura and Sutô, 1935 Marchant, 1967 Ramírez-Morillo and Brown, 2001
<i>C. bahianus</i> L.B.Sm.	17	34+1–4B 34+1–3B	Cotias-de-Oliveira et al., 2000 Gitaí et al., 2014 Marchant, 1967
<i>C. beuckeri</i> E.Morren		(54) ≈34 34	Lindschau, 1933 Marchant, 1967 Bellintani et al., 2005
<i>C. bromelioides</i> Otto & A.Dietr.		34	Sharma and Gosh, 1971
<i>C. marginatus</i> L.B.Sm.		32	Gitaí et al., 2014
<i>C. praetextus</i> E. Morren ex Baker		34 32+1–2B	Sharma and Gosh, 1971 Gitaí et al., 2014
<i>C. warren-loosei</i> Leme		34	Ceita et al., 2008
<i>Deinacanthon</i> Mez			
<i>D. urbanianum</i> (Mez) Mez		(≈160)	Gitaí et al., 2005
<i>Edmundoa</i> Leme			
<i>E. lindenii</i> (Regel) Leme		50	Gitaí et al., 2014
<i>E. lindenii</i> var. <i>rosea</i> (E.Morren) Leme [published as <i>Canistrum roseum</i> E.Morren]		50	Lindschau, 1933
<i>Fascicularia</i> Mez			

<i>F. bicolor</i> (Ruiz & Pav.) Mez subsp. <i>bicolor</i>		50	Gitaí et al., 2005
<i>F. bicolor</i> subsp. <i>canaliculata</i> E.C.Nelson & Zizka		50	Gitaí et al., 2005
Greigia Regel			
<i>G. spec. nov.</i> (aff. <i>G. mulfordii</i> L.B.Sm. var. <i>macrantha</i> L.B.Sm.)		50	Gitaí et al., 2005
<i>G. sphacelata</i> (Ruiz & Pav.) Regel		50	Gitaí et al., 2005
Hohenbergia Schult.f.			
<i>H. stellata</i> Schult. & Schult.f.		50	Cotias-de-Oliveira et al., 2000
Hoplocryptanthus (Mez) Leme, S. Heller & Zizka			
<i>H. schwackeanus</i> (Mez) Leme, S. Heller & Zizka [published as <i>Cryptanthus schwackeanus</i> Mez]		34	Ramírez-Morillo and Brown, 2001
Lapanthus Louzada & Versieux			
<i>L. duartei</i> (L.B. Smith) Louzada & Versieux [published as <i>Orthophytum supthutii</i> E.Gross & Barthlott]		50	Louzada et al., 2010
Neoglaziovia Mez			
<i>N. variegata</i> (Arruda) Mez		100	Cotias-de-Oliveira et al., 2000; 2004; Gitaí et al., 2014
Neoregelia L.B.Sm.			
<i>N. binotii</i> (E.Morren) L.B.Sm. [published as <i>Aregelia binotii</i> (E.Morren) Mez]	25, (27)	(54)	Lindschau, 1933
<i>N. carolinae</i> (Beer) L.B.Sm. [also published as <i>Aregelia carolinae</i> (Beer) Mez]		(54) 50	Lindschau, 1933 Bellintani et al., 2005
<i>N. laevis</i> (Mez) L.B.Sm. [published as <i>Neoregelia laevis</i> (Mez) L.B.Sm. var. <i>albomarginata</i>]		50	Cotias-de-Oliveira et al., 2004
Nidularium Lem.			
<i>N. amazonicum</i> (Baker) Linden & E.Morren ex Lindm. [published as <i>Canistrum amazonicum</i> (Baker) Mez]		50	Weiss, 1965
<i>N. innocentii</i> Lem. [published as <i>Nidularium lineatum</i> Mez]	25	(54)	Lindschau, 1933
<i>N. innocentii</i> var. <i>innocentii</i> Lem.		50	Ceita et al., 2008
<i>N. procerum</i> Lindm.		50	Cotias-de-Oliveira et al., 2004
Ochagavia Phil.			
<i>O. elegans</i> Phil.		50	Gitaí et al., 2005
<i>O. litoralis</i> (Phil.) Zizka, Trumpler & Zöllner		50	Gitaí et al., 2005
Orthophytum Beer			
<i>O. disjunctum</i> L.B.Sm.		50	Gitaí et al., 2005
<i>O. maracasense</i> L.B.Sm.		150	Cotias-de-Oliveira et al., 2000
<i>O. saxicola</i> (Ule) L.B.Sm.		50	Ramírez-Morillo and Brown, 2001; Cotias-de-Oliveira et al., 2004
<i>O. vagans</i> M.B.Foster		50	Louzada et al., 2010
Portea K.Koch.			
<i>P. grandiflora</i> Philcox		50	Cotias-de-Oliveira et al., 2004
<i>P. kermesina</i> K.Koch		50	Weiss, 1965
<i>P. petropolitana</i> (Wawra) Mez		50	Gitaí et al., 2014

<i>Pseudananas</i> Hassl. ex Harms			
<i>P. sagenarius</i> (Arruda) Camargo [also published as <i>Pseudananas macrodentes</i> (E.Morren) Harms]		100 (98), 100	Lindschau, 1933 Lin et al., 1987
<i>Quesnelia</i> Gaudich.			
<i>Q. arvensis</i> (Vell.) Mez		50	Cotias-de-Oliveira et al., 2004; Gitaí et al., 2014
<i>Q. edmundoi</i> L.B.Smith var. <i>rubrobracteata</i> E.Pereira		50	Cotias-de-Oliveira et al., 2004
<i>Q. liboniana</i> (De Jonghe) Mez [also published as <i>Billbergia liboniana</i> De Jonghe, <i>Billbergia liboniana</i> D.Forst]	(54)	50	Sharma and Gosh, 1971; Brown et al. 1997 Matsuura and Sutô, 1935
<i>Sincoraea</i> Ule			
<i>Sincoraea albopicta</i> (Philcox) Louzada & Wand. [published as <i>Orthophytum albopictum</i> Philcox]	50	100	Cotias-de-Oliveira et al., 2004 Louzada et al., 2010
<i>Wittmackia</i> Mez			
<i>W. lingulata</i> (L.) Mez [published as <i>Aechmea lingulata</i> (L.) Baker var. <i>lingulata</i>]	≈25		Marchant, 1967
PUYOIDEAE			
Taxon	n	2n	References
<i>Puya</i> Molina			
<i>P. alpestris</i> (Poepp.) Gay		50	Marchant, 1967
<i>P. chilensis</i> Molina	(24)	50	Tschischow, 1956 Marchant, 1967
<i>P. raimondii</i> Harms		50	Farvarger and Huynh, 1965

References

- Bellintani, M.C., Assis, J.G.A., and Cotias-De-Oliveira, A.L.P. (2005). Chromosomal evolution of Bromeliaceae. *Cytologia* 70, 129-133. doi: 10.1508/cytologia.70.129
- Brown, G.K., Varadarajan, G.S., and Gilmartin, A.J. (1984). Chromosome numbers reports LXXXV. Bromeliaceae. *Taxon* 33, 756-760.
- Brown, G.K., Palací, C.A., and Luther, H. (1997). Chromosome numbers in Bromeliaceae. *Selbyana* 18, 85-88. doi: 10.2307/2444413
- Ceita, G.O., Assis, J.G.A., Guedes, M.L.S., and Cotias-De-Oliveira, A.L.P. (2008). Cytogenetics of Brazilian species of Bromeliaceae. *Bot. J. Linn. Soc.* 158, 189-193. doi: 10.1111/j.1095-8339.2008.00776.x
- Collins JL, Kerns KR. 1931. Genetic studies in pineapples. I. A preliminary report upon the chromosome number and meiosis in seven pineapples varieties. (*Ananas sativus* Lindl.) and in *Bromelia pinguin* L. *J. Hered.* 22, 139-142. doi: 10.1093/oxfordjournals.jhered.a103460

- Cotias-de-Oliveira, A.L.P., Assis, J.G.A., Bellintani, M.C., Andrade, J.C., and Guedes, M.L.S. (2000). Chromosome numbers in Bromeliaceae. *Genet. Mol. Biol.* 23, 173-177. doi: 10.1590/S1415-47572000000100032
- Cotias-de-Oliveira, A.L., Assis, J.G.A., Ceita, G.O., Palmeira, A.C.L., and Guedes, M.L.S. (2004). Chromosome numbers for Bromeliaceae species occurring in Brazil. *Cytologia* 69, 161-166. doi: 10.1508/cytologia.69.161
- Éder-Silva, E., Pessoa-Felix, L., and Alcantara, B.R.L. 2007. Citogenética de algumas espécies frutíferas nativas do nordeste do Brasil. *Rev. Bras. Frutic.* 29, 110-114. Doi: 10.1590/S0100-29452007000100024
- Favarger, C., and Huynh, K.L. (1965). „Bromeliaceae,” in IOPB Chromosome Number Reports III, eds. Á. Löve, and O.T. Solbrig. *Taxon* 14, 52
- Gitaí, J., Horres, R., and Benko-Iseppon, A.M. (2005). Chromosome features and evolution of Bromeliaceae. *Plant Syst. Evol.* 253, 65-80. doi: 10.1007/s00606-005-0306-8
- Gitaí, J., Paule, J., Zizka, G., Schulte, K., and Benko-Iseppon, A.M.. (2014). Chromosome numbers and DNA content in Bromeliaceae: additional data and critical review. *Bot. J. Lin. Soc.* 176, 349-368. doi: 10.1111/boj.12211
- Gouda, E.J., D. Butcher, C.S. Gouda. cont. updated. *Encyclopaedia of Bromeliads*, Version 4. Available online at: <http://bromeliad.nl/encyclopedia>
- Lin, B.V., Ritschel, P.S., and Ferreira, F.R.. 1987. Número cromossômico de exemplares da família Bromeliaceae. *Rev. Bras. Frutic.* 9, 49-55.
- Lindschau, M. (1933). Beiträge zur Zytologie der Bromeliaceae. *Planta* 3, 506-530. doi: 10.1007/BF01910644
- Louzada, R.B., Palma-Silva, C., Corrêa, A.M., Kaltchuk-Silva, E., and Wanderley, M.G.L. (2010). Chromosome numbers of *Orthophytum* species (Bromeliaceae). *Kew Bull.* 65, 53-58. doi: 10.1007/s12225-010-9175-6
- Marchant, C.J. (1967). Chromosome evolution in the Bromeliaceae. *Kew Bull.* 21, 161-168.
- Matsuura, H., and Sutô, H. (1935). Contributions to the idiogram study in phanerogamous plants I. *J. Fac. Sci., Hokkaido Univ.* 5, 33-75.
- Matuszak-Renger, S., Paule, J., Heller, S., Leme, E.M.C., Steinbeisser, G.M., Barfuss, M.H.J., et al. (2018). Phylogenetic relationships among *Ananas* and related taxa (Bromelioideae, Bromeliaceae) based on nuclear, plastid and AFLP data. *Plant Syst. Evol.* 304, 841-851. doi: 10.1007/s00606-018-1514-3

- Palma-Silva, C. (2003). Análises citogenéticas em espécies de *Vriesea* e *Aechmea* (Bromeliaceae) nativas do Rio Grande do Sul. [Master thesis]. [Porto Alegre]: Universidade Federal do Rio Grande do Sul
- Palma-Silva, C., Santos, D.G., Kaltchuk-Santos, E., and Bordanese-Zanettini, M.H. (2004). Chromosome numbers, meiotic behavior, and pollen viability of species of *Vriesea* and *Aechmea* genera (Bromeliaceae) native to Rio Grande do Sul, Brasil. *Am. J. Bot.* 91, 804-807. doi: 10.3732/ajb.91.6.804
- Ramírez-Morillo, I.M., and Brown, G.K. (2001). The origin of the low chromosome number in *Cryptanthus* (Bromeliaceae). *Syst. Bot.* 26, 722-726. doi: 10.1043/0363-6445-26.4.722
- Sharma, A.K., and Gosh, I. (1971). Cytotaxonomy of the family Bromeliaceae. *Cytologia* 36, 237-247. doi: 10.1508/cytologia.36.237
- Taylor, W.R. (1925). Chromosome constrictions as distinguishing characteristics in plants. *Am. J. Bot.* 4, 238-244. doi: 10.1002/j.1537-2197.1925.tb05830.x
- Tschischow, N.T. (1956). Número de cromosomas de algunas plantas chilenas. *Bol. Soc. Biol. Concepc.* 31, 145-147.
- Weiss, H.E. (1965). Étude caryologique et cyto-taxonomique de quelques Broméliacées. *Mém. Mus. Natl. Hist. Nat.* 1, 9-38.