

PRELIMINARY CHECKLIST OF BORNEAN *CYRTANDRA* (GESNERIACEAE)

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A checklist of Bornean *Cyrtandra* (Gesneriaceae) is presented. One hundred and seventy-six names are accepted, including eight varieties and two subspecies. Three names are considered of uncertain status because no type material has been found, and nine names are lectotypified. Information on Bornean *Cyrtandra* is very scattered, and for a number of species, illustrations and amplified descriptions were published after the original protologue. Therefore, this checklist has been compiled and annotated to consolidate all this information in a single reference work.

Keywords. Brunei, Indonesia, Kalimantan, lectotype, Malaysia, Sabah, Sarawak, taxonomy.

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Introduction

Cyrtandra J.R.Forst. & G.Forst. is the largest genus in the Gesneriaceae, having c.700–800 species (Atkins *et al.*, 2013). It is distributed from the Nicobar Islands in the west to the Hawaiian and Marquesan islands in the east (Atkins *et al.*, 2013). The genus lacks a modern, comprehensive taxonomic treatment, and there is currently no effective infrageneric classification (Atkins *et al.*, 2021). A multi-institutional, concerted approach to improving our understanding of the taxonomy of this large group is underway, using phylogenetically informed revisions of geographical areas (Clark *et al.*, 2013; Atkins *et al.*, 2021). As part of this process, annotated checklists of three of its centres of diversity in Southeast Asia have recently been published, as precursors to full taxonomic revisions (Philippines: Olivar *et al.*, 2022; Sumatra: Wang *et al.*, 2022; New Guinea: Bramley *et al.*, 2023). This paper focuses on the tropical island of Borneo, the largest island of the Sundaland global biodiversity hotspot (Myers *et al.*, 2000), which is home to roughly 14,500 species (Roos *et al.*, 2004) and 65 endemic plant genera (Neo *et al.*, 2020). It is a major evolutionary centre for Southeast Asian biodiversity (de Bruyn *et al.*, 2014) and facing increasing pressures from anthropogenic activities (Gaveau *et al.*, 2018; Neo *et al.*, 2020).

The island of Borneo is a centre of diversity for *Cyrtandra* (Figure 1), having more than 170 known species, and it is the most likely ancestral area for the genus (Atkins *et al.*, 2020). The first *Cyrtandra* species from the island of Borneo were described by Clarke

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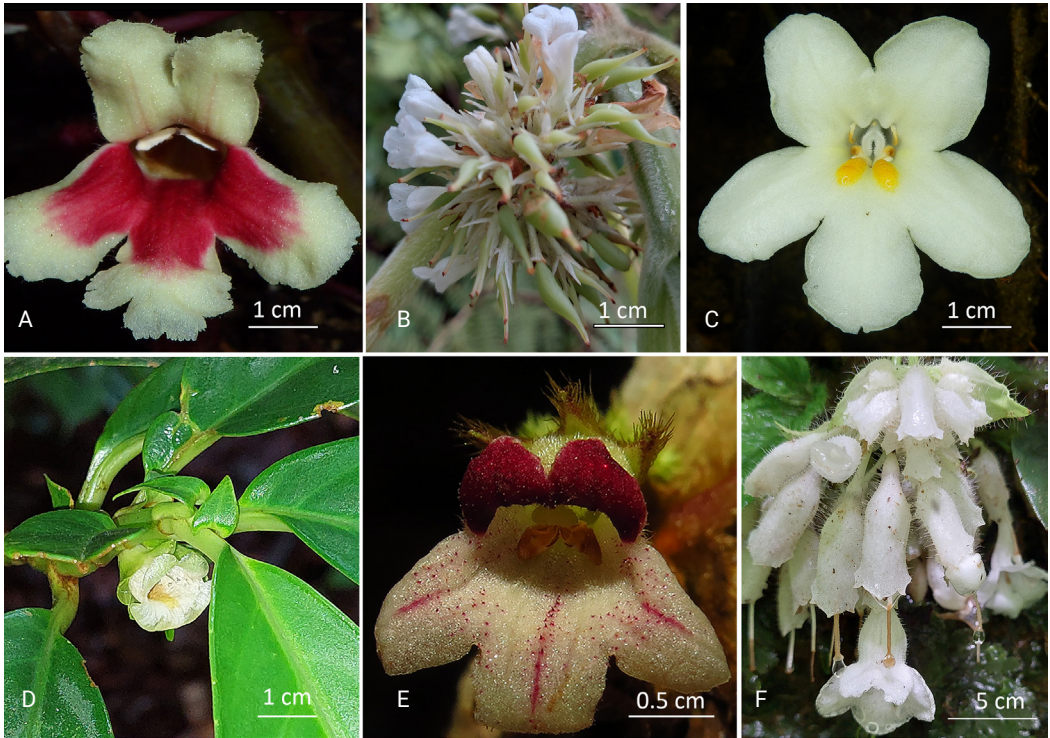


Figure 1. Flowers of *Cyrtandra* of Borneo: A, *C. radiciflora*; B, *C. hololeuca*; C, *C. penduliflora*; D, *C. triseipala*; E, *C. eximia*; F, *C. decipiens*. Photographs: A and E, C. Y. Ling; B, H. J. Atkins; C, P. Wilkie; D and F, G. Bramley.

(1883) in his revision of the genus across its distribution. He described 26 species, largely based on the collections of Beccari. In the subsequent 90 years, a further 37 species were described, notably 21 by Kraenzlin (Kraenzlin, 1906, 1907, 1927, 1928), many of which were based on the collections of Hans Winkler. Five were described by Lauterbach (Lauterbach, 1910) based on the collections of Hubert Winkler. Between 1970 and 2006, Burtt and Hilliard described a further 119 species, many based on Burtt's own collections (Burtt, 1970, 1978, 1982, 1990a, 1990b, 1993, 1997, 1999; Hilliard et al., 2003; Hilliard & Burtt, 2004; Hilliard, 2005; Hilliard & Burtt, 2005a, 2005b, 2006a, 2006b) and several in regional works on Brunei (Burtt, 1997) and Mount Kinabalu (Beaman et al., 2001).

Burtt and Hilliard were unfortunately unable to complete their work on the genus in Borneo and thereby provide the synthesis that they had hoped to produce. Although there are keys to species within some morphological groups (e.g. Hilliard et al., 2003; Hilliard & Burtt, 2005a, 2005b), there is no overall key to the c.170 known species in Borneo, and the information about the species is very scattered. This preliminary checklist is the first step towards addressing this situation and has been compiled with the aim of bringing together

information on all Bornean *Cyrtandra* names, clarifying types, and recording taxonomic status and basic distribution information. There are also very few illustrations associated with these names; therefore, wherever these are available, they are highlighted here. The checklist will form the basis of future taxonomic work on the island. The list presented here summarises currently accepted circumscriptions, and we have refrained from making taxonomic changes.

Materials and methods

All known published names used for Bornean species of *Cyrtandra* were reviewed (GRC, 2022; IPNI, 2022; WFO, 2022). Bornean *Cyrtandra* material was viewed in the home herbaria of the authors (BO, E, K, SAR), on herbarium visits (BM, BRUN, SING, WRSL), and online in the cases of A, B, GH, HBG, L, M, MO, MSC, NY, P and US (abbreviations follow Thiers, [continuously updated](#)) through their individual herbarium websites (e.g. Prather & Chansler, 2022) via JSTOR (JSTOR, 2022) or the JACQ Virtual Herbaria websites (JACQ, 2022). Additionally, with assistance from herbaria curation staff, a number of specimens were verified as being present in AAU, BRUN, HBG, KEP, KYO, MSC, SAN, W and WU. Where specimens have not been seen, this is indicated by 'n.v.' following the specimen citation.

Typification of names follows the *International Code of Nomenclature for algae, fungi, and plants* (Turland *et al.*, 2018). Lectotypes are selected, where appropriate, from the original material, and where necessary, discussion is included after each species. For three names (*Cyrtandra anisopoda* Kraenzl., *C. microcalyx* Kraenzl. and *C. punctatissima* Kraenzl.), type material (two *Schlechter* collections and one *Hubert Winkler* specimen) has not been found after checking at B, BM, BR, HBG, K, LY, P, W and WRSL, and it will be necessary to neotypify these names as part of a full taxonomic revision. These names are listed under the heading *Bornean Cyrtandra names of uncertain status* towards the end of the Checklist.

A significant number of the type collections, particularly those held in E made by Burt and collaborators, and also those by Hans Winkler at HBG, are on multiple sheets clearly annotated as, for example, 'Sheet 1' and 'Sheet 2', and sometimes also with associated liquid-preserved (spirit) material. Following Article 8.3 of the *International Code of Nomenclature for algae, fungi, and plants* (Turland *et al.*, 2018), these are considered parts of the holotype and are not treated as duplicates. Where additional sheets of a type collection in the same herbarium are either marked as isotypes or not clearly defined as 'Sheet 1' and 'Sheet 2', these are recorded here as isotypes.

Specimens in L with the most recent barcodes (those with a period after the herbarium code, e.g. L.2821876) are cited in preference to the older barcodes (those without a period after the herbarium code). For some specimens, only the older barcodes are available; in such cases, these are cited.

Following Article 60.11 of the *International Code of Nomenclature for algae, fungi, and plants* (Turland *et al.*, 2018), hyphens have been removed from compound epithets where appropriate (e.g. *Cyrtandra serrato-bracteata* Lauterb. is cited as *Cyrtandra serratobracteata* Lauterb.)

Information on the distribution of each species is taken from protologues, floras and taxonomic accounts. At this stage, distribution is specified only at the level of the major political divisions of the island of Borneo (i.e. Brunei, Kalimantan, Sabah and Sarawak). It is listed, after each species, in the order of the date of the publication where the information is provided, to reflect how knowledge of the distribution of each species has changed over time. Following Bramley *et al.* (2023), type localities are presented to match the specimen labels rather than as given in the protologues, where there are differences. Modern place names are given in square brackets where equivalents exist. Updated altitudes (i.e. in metres) are also given in square brackets if they have been included in the protologues.

Checklist

In the absence of a comprehensive infrageneric system, the species are presented here alphabetically, although reference is occasionally made to Clarke's sections in the *Notes* sections within the context of previously published studies that have recognised them.

Cyrtandra adnata B.L.Burt, Notes Roy. Bot. Gard. Edinburgh 30: 24 (1970); Beaman *et al.*, Pl. Mt. Kinabalu 4: 367 (2001). – Type: MALAYSIA. Sabah, Mt Kinabalu, Sungei Mesilau, 5000 ft [1500 m], 23 viii 1961, Chew, Corner & Stainton RSNB 1359 (holotype K (2 sheets) [K000831545, K000831546]; isotypes E [E00062430], L [L.2821876], US [00126210]).

Distribution. Sabah (Burt, 1970; Beaman *et al.*, 2001).

Cyrtandra albibracteata B.L.Burt, Edinburgh J. Bot. 47: 203 (1990); Burt, Edinburgh J. Bot. 61: 147 (2005). – Type: MALAYSIA. Sarawak, SE end of Hose Mts, Ulu Melinau falls, 3400 ft, 18 viii 1967, Burt & Martin B4952 (holotype E (2 sheets) [E00062568, E00394414]; isotypes K [K000831547], L [L0538544], SAR).

Distribution. Sarawak (Burt, 1990b; Burt, 2005).

Notes. An updated description of this species was provided in Burt (2005) as the original description contained errors in the details of the flower (the flower described and illustrated belonged to a different species).

Cyrtandra ammitophila B.L.Burt, Notes Roy. Bot. Gard. Edinburgh 36: 158 (1978); Burt in Coode *et al.*, Checkl. Fl. Pl. Gymnosperms Brunei Darussalam: 132 (1997 [‘1996’]). – Type: MALAYSIA. Sarawak, Fourth Division, Bintulu District, NE slope of Bukit Kana, 600–850 m, 19 xi 1963, Hirano & Hotta 1287 (holotype KYO n.v.).

Distribution. Sarawak (Burt, 1978); Brunei (Burt, 1997).

Cyrtandra andersonii B.L.Burtt, Notes Roy. Bot. Gard. Edinburgh 30: 25 (1970). – Type: MALAYSIA. Sarawak, Bukit Gaharu, c.2000 ft [900 m], 1 viii 1962, *Anderson & Burtt* B2654 (holotype E [E00062504]; isotypes K [K000857495], KEP [KEP154816], L [L0820035], SAR).

Distribution. Sarawak (Burtt, 1970).

Notes. An illustration of the inflorescence and a dissected flower was provided in Burtt (1970).

Cyrtandra angularis Elmer, Leafl. Philipp. Bot. 3: 960 (1910); Burtt, Notes Roy. Bot. Gard. Edinburgh 30: 26 (1970); Beaman *et al.*, Pl. Mt. Kinabalu 4: 367 (2001). – Type: PHILIPPINES. Mindanao, Davao, Todaya, Mt Apo, v 1909, *Elmer* 10698 (lectotype K [K000096619], designated by Olivar *et al.*, Taxon 71: 1088 (2022); isolectotypes A [A00054953], BISH [BISH1001866], BM [BM000630842], BO [BO-1869795], E [E00062579], GH [GH00054952], HBG [HBG-517613], MO [MO1997468], NY [NY00312635], US [US00126213], WRSL).

Distribution. Philippines (Elmer, 1910), Sabah (Burtt, 1970; Beaman *et al.*, 2001).

Notes. The first record of this Philippine species on the island of Borneo was made by Burtt (1970), although some of these collections, including *Keith* 9088 and *Sinclair & Lal* 9351, were later moved into *Cyrtandra keithii* Hilliard & B.L.Burtt (Hilliard & Burtt, 2006a).

Taxonomic research is required to confirm whether this species is definitely present on the island of Borneo.

Cyrtandra angustiliptica Hilliard & B.L.Burtt, Gard. Bull. Singapore 55: 56 (2003). – Type: MALAYSIA. Sarawak, Sungei Melinau Gorge, 22 vi 1962, Burtt & Woods B2212 (holotype E [E00259925]; isotypes L [L.3798935], SAR, WU [WU 0044094]).

Distribution. Sarawak (Hilliard *et al.*, 2003).

Cyrtandra antuana B.L.Burtt, Edinburgh J. Bot. 47: 204 (1990). – Type: MALAYSIA. Sarawak, Lubok Antu District, Ulu Sungai Engkari, near Nanga Tibu school, 23 iii 1974, *Chai* S.34100 (holotype E [E00062444]; isotypes L [L.2822380], SAR).

Distribution. Sarawak (Burtt, 1990b).

Cyrtandra apaensis B.L.Burtt, Edinburgh J. Bot. 61: 148 (2005). – Type: MALAYSIA. Sarawak, Sungai Apa, tributary of S. Sut, in between Bukit Goram and Bukit Bakak, Ulu Kapit, c.335 m, 3 iii 1975, *Chai* S.36197 (holotype E [E00394502]; isotypes K [K000831548], L [L0444310]).

Distribution. Sarawak (Burtt, 2005).

Cyrtandra arachnoidea Hilliard & B.L.Burtt, Edinburgh J. Bot. 62: 145 (2006). – Type: MALAYSIA. Sabah, Tawau District, Tawau Hills Park near headquarters camp, 300–400 m, 15–16 vi 1984, *Beaman* 10173 (holotype E [E00394424]; isotypes L [L.2826628], MSC [MSC0273736]).

Distribution. Sabah (Hilliard & Burtt, 2006a).

Cyrtandra areolata (Stapf) B.L.Burtt, Notes Roy. Bot. Gard. Edinburgh 30: 26 (1970); Beaman *et al.*, Pl. Mt. Kinabalu 4: 367 (2001). – *Didymocarpus areolatus* Stapf, Trans. Linn. Soc. London, Bot. 4: 212 (1894). – Type: MALAYSIA. Sabah, Kinabalu, 5000–7000 ft [1500–2100 m], *Haviland* 1248 (holotype K [K000831549], isotype SAR).

Distribution. Sabah (Burtt, 1970; Beaman *et al.*, 2001).

Cyrtandra areolata B.L.Burtt var. *grandis* B.L.Burtt, Edinburgh J. Bot. 49: 286 (1993); Beaman *et al.*, Pl. Mt. Kinabalu 4: 368 (2001). – Type: MALAYSIA. Sabah, Mt Kinabalu, Eastern Shoulder, 4000 ft, 29 vii 1961, *Chew, Corner & Stainton* RSNB 1541 (holotype E [E00062507]; isotypes K [K001376348], L [L0003340]).

Distribution. Sabah (Burtt, 1993; Beaman *et al.*, 2001).

Cyrtandra argentata B.L.Burtt, Notes Roy. Bot. Gard. Edinburgh 36: 159 (1978). – Type: MALAYSIA. Sarawak, Third Division, Bukit Raya, near Pelagus Rapids on Rejang, 420 m, 20 vii 1962, *Burtt & Woods* B2575 (holotype E [E00062441]; isotypes K [K001096792], SAR).

Distribution. Sarawak (Burtt, 1978).

Notes. The name *Cyrtandra argentea* B.L.Burtt was incorrectly listed in the series index for ‘Studies in the Gesneriaceae of the Old World’ (Burtt, 1990a) as a misspelling of *C. argentata*.

Cyrtandra argentata B.L.Burtt subsp. *latifolia* B.L.Burtt, J. Linn. Soc., Bot. 85: 19 (1982). – Type: MALAYSIA. Sarawak, Seventh division, Belaga District, Linau–Balui divide, Sg. Nawai and also near Sg. Brearan, c.2600 ft [780 m], 5 ix 1978, *Burtt* B11466 (holotype E [E00062442, E00062443]; isotypes K [K001096784], SAR).

Distribution. Sarawak (Burtt, 1982).

Cyrtandra asikii Hilliard & B.L.Burtt, Edinburgh J. Bot. 62: 147 (2006). – Type: MALAYSIA. Sabah, Sunsuran, km 54 Jalan Tambunan/Penampang, 1300 m, 24 iii 1989, *Asik Mantor* SAN 127892 (holotype K [K001057789], isotype L [L.3794121]).

Distribution. Sabah (Hilliard & Burtt, 2006a).

Cyrtandra athrocarpa B.L.Burtt, Edinburgh J. Bot. 47: 205 (1990); Burtt in Coode *et al.*, Checkl. Fl. Pl. Gymnosperms Brunei Darussalam: 132 (1997 [‘1996’]). – Type: MALAYSIA. Sarawak, Kapit District, Sungai Bena, 23 iv 1980, *Burtt* B12939 (holotype E (2 sheets) [E00062549, E00062550]; isotypes L [L.4418391], SING [SING0217681]).

Distribution. Sarawak (Burtt, 1990b); Brunei (Burtt, 1997).

Notes. An illustration of the flower was provided in Burtt (1990b).

Cyrtandra atrichoides Hilliard & B.L.Burtt, Edinburgh J. Bot. 63: 209 (2006). – Type: MALAYSIA. Sarawak, S. Hose Mts, Ulu Melinau, c.4500 ft, 13 iv 1980, *Burtt* B12869

(holotype E (3 sheets) [E00394494, E00394495, E00394496]; isotypes K [K000831550, K000831551], L [L03538543]).

Distribution. Sarawak (Hilliard & Burt, 2006b).

Cyrtandra atrichos C.B. Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 237 (1883); Burt, Notes Roy. Bot. Gard. Edinburgh 36: 160 (1978). – Type: MALAYSIA. Sarawak, Pankalan-ampat, xi 1866, *Beccari* PB 2792 (lectotype K [K000831529] designated here; isolectotype FI [FI013133]).

Distribution. Sarawak (Clarke, 1883; Burt, 1978).

Notes. An updated description and illustration for this species was provided in Burt (1978). Clarke listed specimens of *Beccari* 2792 from both K and his own herbarium (now in FI) in the original protologue for this species. The specimen in K is selected here as the lectotype because it has mature fruits.

Cyrtandra aurantiaca B.L. Burt, Edinburgh J. Bot. 47: 207 (1990); Beaman et al., Pl. Mt. Kinabalu 4: 368 (2001). – Type: MALAYSIA. Sabah, Mt Kinabalu, Ulu Liwagu and Ulu Mesilau, 5000 ft, 6 ix 1961, *Chew, Corner & Stainton* RSNB 2820 (holotype K [K000831552]; isotypes A [A00216501], E [E00062473, E00743652 (spirit)], L [L0003346]).

Distribution. Sabah (Burt, 1990b; Beaman et al., 2001).

Notes. An illustration of the flower of this species was provided in Burt (1990b).

Cyrtandra axillaris C.B. Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 260. (1883); Burt, Notes Roy. Bot. Gard. Edinburgh 30: 26 (1970); Hilliard & Burt, Edinburgh J. Bot. 63: 210 (2006). – Type: INDONESIA. [West Kalimantan], Sebalouw, *Teijsmann* 10886 (holotype FI [FI008084], isotype BO [BO-1402929]).

Cyrtandra latens C.B. Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 215 (1883); Burt, Notes Roy. Bot. Gard. Edinburgh 30: 34 (1970); Hilliard & Burt, Edinburgh J. Bot. 63: 210 (2006). – Type: MALAYSIA. Sarawak, Gading, viii 186–, *Beccari* PB 2300 (holotype FI [FI013160]).

Cyrtandra dajakorum Kraenzl., Mitt. Inst. Allg. Bot. Hamburg 7: 108 (1927); Burt, Notes Roy. Bot. Gard. Edinburgh 30: 35 (1970); Hilliard & Burt, Edinburgh J. Bot. 63: 210 (2006). – Type: INDONESIA. West Borneo [West Kalimantan], auf dem Bukit Obat, 150 m, 29 i 1925, *Hans Winkler* 1332 (holotype HBG (2 sheets) [HBG-517483, HBG-517484]).

Distribution. Kalimantan, Sarawak (Clarke, 1883; Burt, 1970; Hilliard & Burt, 2006b).

Notes. Additional notes on this species and specimens are cited in Burt (1970). An updated description and new synonymy were provided by Hilliard & Burt (2006b).

Cyrtandra banyingii Hilliard & B.L.Burtt, *Edinburgh J. Bot.* 62: 148 (2006). – Type: MALAYSIA. Sarawak, Hose Mts, base of Bukit Kajang, 1300 m, 23 iii 1964, *Banying ak Nyudong* S.16537 (holotype E [E00394425], isotype L [L0350589]).

Distribution. Sarawak (Hilliard & Burtt, 2006a).

Cyrtandra basiflora C.B.Clarke in A.DC. & C.DC., *Monogr. Phan.* 5(1): 254 (1883); Burtt in Coode *et al.*, *Checkl. Fl. Pl. Gymnosperms Brunei Darussalam*: 132 (1997 [‘1996’]). – Type: MALAYSIA. Sarawak, Pankalan-ampat, *Beccari* PB 2735 (holotype FI [FI013135]).

Distribution. Sarawak (Clarke, 1883); Brunei (Burtt, 1997).

Cyrtandra beamanii B.L.Burtt, *Edinburgh J. Bot.* 47: 208 (1990); Beaman *et al.*, *Pl. Mt. Kinabalu* 4: 368 (2001). – Type: MALAYSIA. Sabah, Ranau District, Crocker Range, Bukit Lugas, Kg. Himbaan, 8.5 km SE Tenompok, 1250 m, 29 xii 1983, *Beaman* 8127 (holotype E [E00062484]; isotypes MSC [MSC0091542], US [US00246089]).

Distribution. Sabah (Burtt, 1990b; Beaman *et al.*, 2001).

Cyrtandra benaratica B.L.Burtt, *J. Linn. Soc., Bot.* 85: 19 (1982). – Type: MALAYSIA. Sarawak, Gunung Mulu National Park, between Sg. Medalam and north end of Benarat massif, 5–600 ft [150–180 m], 22 vi 1975, *Burtt* B8348 (holotype E (2 sheets) [E00062564, E00062565] and spirit [E00743632]; isotypes BRUN [B043544, B043545], E [E00983553], K [K001096787], L [L.4418399], SAR).

Distribution. Sarawak (Burtt, 1982).

Cyrtandra bracheia B.L.Burtt, *Notes Roy. Bot. Gard. Edinburgh* 30: 27 (1970); Hilliard, *Edinburgh J. Bot.* 61: 171 (2005). – Type: MALAYSIA. Sarawak, Mt Matang, c.2000 ft [600 m], 15 vii 1962, *Burtt & Woods* B2511 (holotype E [E00062436] and spirit [E00743629]; isotypes K [K001096780], SAR).

Cyrtandra decurrens de Vriese var. *puncticulata* auct. non. C.B.Clarke in A.DC. & C.DC., *Monogr. Phan.* 5(1): 232 (1883), pro parte syntypes (*Beccari* 938 (FI [FI013146]), *Beccari* 1070 (FI [FI013145])).

Distribution. Sarawak (Burtt, 1970); Sarawak, Kalimantan (Hilliard, 2005).

Notes. In his 1883 monograph of *Cyrtandra*, Clarke (1883) treated *C. decurrens* as a species with a distribution from Maluku to Peninsular Malaysia, and with three varieties. See under that species in the *Excluded names* section for more detail. Two of the specimens cited under *Cyrtandra decurrens* var. *puncticulata* by Clarke were listed as pro parte syntypes for *C. bracheia* B.L.Burtt by Burtt (1970).

Cyrtandra brevisetosa Hilliard & B.L.Burtt, *Edinburgh J. Bot.* 61: 180 (2005). – Type: MALAYSIA. Sarawak, Gunung Bunga range from Seropak village, c.350 m, 6 iii 1982,

Argent & Sinclair 8230 (holotype E (2 sheets) [E00383706, E00383707]; isotypes K [K000857498], L [L3798920]).

Distribution. Sarawak (Hilliard & Burtt, 2005b).

Cyrtandra bryophila B.L.Burtt, *Edinburgh J. Bot.* 47: 209 (1990); Bramley, *Blumea* 50: 171 (2005). – Type: MALAYSIA. Sarawak, Seventh Division, S. Hose Mts, Camp VI, c.4500 ft [1370 m], 13 iv 1980, *Burtt* B12880 (holotype E [E00062525] and spirit [E00743825]; isotypes K [K001096785], SAR).

Distribution. Sarawak (Burtt, 1990b; Bramley, 2005).

Notes. An updated description, distribution map and notes on this species were given in Bramley (2005), including diagnostic features within sect. *Dissimiles*.

Cyrtandra bullifolia B.L.Burtt, *Edinburgh J. Bot.* 47: 210 (1990); Burtt in Coode *et al.*, *Checkl. Fl. Pl. Gymnosperms Brunei Darussalam*: 132 (1997 [‘1996’]). – Type: MALAYSIA. Sarawak, SE end of Hose Mts, Bukit Pantoh due east of B. Nibong, 3600 ft, 10 viii 1967, *Burtt & Martin* B4884 (holotype E (2 sheets) [E00062512, E00062513] and spirit [E00743633]; isotypes A [A00273113], K [K000857487], L [L.3798917], SAR).

Distribution. Sarawak (Burtt, 1990b); Brunei (Burtt, 1997).

Notes. An illustration of the flower was included in Burtt (1990b).

Cyrtandra burbidgei C.B.Clarke in A.DC. & C.DC., *Monogr. Phan.* 5(1): 262 (1883); Beaman *et al.*, *Pl. Mt. Kinabalu* 4: 368 (2001). – Type: MALAYSIA. Sabah, Kiau, 1877, *Burbidge* s.n. (holotype K [K000831544], isotype BM [BM000630849]).

Distribution. Sabah (Clarke, 1883; Beaman *et al.*, 2001).

Cyrtandra burleyana B.L.Burtt, *Edinburgh J. Bot.* 61: 149 (2005). – Type: INDONESIA. West Kalimantan, Gunong Bentuang area, 5–10 km north of Masa village, gently sloping area east of upper Sungai Sembawang, 250 m, 21 vi 1989, *Burley* *et al.* 2747 (holotype E [E00394501], isotype A [A00092295]).

Distribution. Sarawak, Kalimantan (Burtt, 2005).

Cyrtandra calciphila B.L.Burtt, *Notes Roy. Bot. Gard. Edinburgh* 36: 161 (1978). – Type: MALAYSIA. Sarawak, Fourth Division, Gunung Mulu National Park, Melinau gorge camp, c.400 ft [120 m], 11 vi 1975, *Burtt* B8239 (holotype E [E00062496] and spirit [E00743636]; isotypes K [K001096788], L [L.4418400], SAR).

Distribution. Sarawak (Burtt, 1978).

Cyrtandra cerea Kraenzl., Mitt. Inst. Allg. Bot. Hamburg 7: 106 (1927); Hilliard, Edinburgh J. Bot. 61: 162 (2005). – Type: INDONESIA. West Borneo [West Kalimantan], auf dem Bukit Raja, 17 xii 1924, *Hans Winkler* 928 (holotype HBG (2 sheets) [HBG-517505, HBG-517506]; isotypes BO [BO-1257709], HBG [HBG-517507]).

Distribution. Kalimantan (Kraenzlin, 1927; Hilliard, 2005).

Notes. Hilliard (2005) provided a fuller description and a discussion of morphologically similar species.

Cyrtandra chaiana B.L.Burtt, Notes Roy. Bot. Gard. Edinburgh 36: 162 (1978). – Type: MALAYSIA. Sarawak, First Division, Padawan District, near Kampong Bra'ang Wah, c.950 ft [285 m], 8 v 1975, *Burtt* B8106 (holotype E (2 sheets) [E00062541, E00062542] and spirit [E00743640]; isotypes E [E00940608], K [K001096790], L [L.4418404], SAR).

Distribution. Sarawak (Burtt, 1978).

Notes. An illustration of the flowers and fruits of this new species were included in Burtt (1978).

Cyrtandra chrysea C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 212 (1883); Burtt, Notes Roy. Bot. Gard. Edinburgh 36: 163 (1978); Burtt in Coode *et al.*, Checkl. Fl. Pl. Gymnosperms Brunei Darussalam: 132 (1997 ['1996']); Beaman *et al.*, Pl. Mt. Kinabalu 4: 369 (2001); Hilliard & B.L.Burtt, Kew Bull. 59: 252 (2004). – Type: MALAYSIA. N.E. of Borneo [Sabah], Kulawat, *Lobb* s.n. (holotype K [K000831519]).

Distribution. Sabah (Clarke, 1883); Sabah, Sarawak, Kalimantan (Burtt, 1978); Brunei (Burtt, 1997); Sabah (Beaman *et al.*, 2001); Sabah, Kalimantan and possibly Brunei (Hilliard & Burtt, 2004).

Notes. Additional specimens of this species and discussion of its disjunct distribution were provided in Burtt (1978), as well as a key to separate this species from the morphologically similar *Cyrtandra eximia* C.B.Clarke. An updated description, distribution and key to related species were also provided in Hilliard & Burtt (2004), where the distribution of this species was reduced to Sabah and Kalimantan, and possibly Brunei. There are two sheets in K of this species collected by Lobb, but only one (K000831519) matches the location details cited in the protologue of 'Kulawat', so this is considered the holotype.

Cyrtandra clarkei Stapf, Trans. Linn. Soc. London, Bot 4: 213 (1894); Burtt, Edinburgh J. Bot. 49: 286 (1993); Beaman *et al.*, Pl. Mt. Kinabalu 4: 369 (2001). – Type: MALAYSIA. Sabah, Mt Kinabalu, 10,500 ft, *Haviland* 1131 (holotype K [K000831555]; isotypes SAR, SING [SING0199887]).

Distribution. Sabah (Stapf, 1894; Burtt, 1993; Beaman *et al.*, 2001).

Notes. An illustration of *Cyrtandra clarkei* is provided in Stapf (1894), and a key to the new varieties is provided in Burt (1993).

Cyrtandra clarkei Stapf var. ***brachycalyx*** B.L.Burt, Edinburgh J. Bot. 49: 287 (1993); Beaman et al., Pl. Mt. Kinabalu 4: 369 (2001). – Type: MALAYSIA. Sabah, Mt Kinabalu, Mesilau cave, above landslip, 6500 ft, ix 1979, *Collenette* 87/79 (holotype E [E00062448]).

Distribution. Sabah (Burt, 1993; Beaman et al., 2001).

Cyrtandra clarkei Stapf var. ***grandis*** B.L.Burt, Edinburgh J. Bot. 49: 287 (1993); Beaman et al., Pl. Mt. Kinabalu 4: 369 (2001). – Type: MALAYSIA. Sabah, Mt Kinabalu, Mesilau, in stream valleys, 22 iii 1964, *Chew & Corner* RSNB 5914 (holotype E [E00062449] and spirit [E00886777]; isotypes K [K000831556], L [L0003279]).

Distribution. Sabah (Burt, 1993; Beaman et al., 2001).

Cyrtandra clarkei Stapf var. ***longipetiolata*** B.L.Burt, Edinburgh J. Bot. 49: 288 (1993); Beaman et al., Pl. Mt. Kinabalu 4: 370 (2001). – Type: MALAYSIA. Sabah, Mt Kinabalu, Penibukan, Ina Taki [Kinataki] river, 4000–5000 ft, 16 i 1933, *Clemens & Clemens* 31083 (holotype L [L2078962]; isotypes BM [BM000564431], BO [BO-1370280]).

Distribution. Sabah (Burt, 1993; Beaman et al., 2001).

Cyrtandra coacta Hilliard & B.L.Burt, Gard. Bull. Singapore 55: 46 (2003). – Type: MALAYSIA. Sabah, Ranau District, road from Lohan to Mamut Copper mine near Tank 47, 1100 m, 9 vii 1984, *Beaman* 10656 (holotype E [E00259929]; isotypes L [L.2826371], US [US00081069]).

Distribution. Brunei (Burt, 1997); Sabah, Sarawak (Hilliard et al., 2003).

Notes. Specimens previously cited as being *Cyrtandra sarawakensis* in Beaman et al. (2001) are now considered *C. coacta*. Some specimens from Brunei cited as being *Cyrtandra sarawakensis* in Burt (1997) have subsequently been identified as *C. coacta* by Hilliard in the herbarium in E but are not listed in her account of sect. *Pleuroschisma* (Hilliard et al., 2003), so the presence of this species in Brunei needs to be confirmed.

Cyrtandra congestiflora B.L.Burt, Edinburgh J. Bot. 63: 212 (2006). – Type: MALAYSIA. Sabah, Lahad Datu district, Tabin Wildlife Reserve near Wildlife Department's headquarters, c.150 m, 24 ii 2000, *Kjeldsen* 37 (holotype E [E00394427] and spirit [E00743995]; isotypes AAU, KEP [73563], SAN).

Distribution. Sabah (Hilliard & Burt, 2006b).

Cyrtandra corniculata B.L.Burt, Edinburgh J. Bot. 49: 289 (1993); Beaman et al., Pl. Mt. Kinabalu 4: 370 (2001). – Type: MALAYSIA. Sabah, Mt Kinabalu, Pinosuk Plateau, Base

camp, 5000 ft, 7 v 1964, *Chai & Ilias* RSNB 6035 (holotype E [E00062482]; isotypes K [K000831557], L [L0003281], SING [SING0200553]).

Distribution. Sabah (Burt, 1993; Beaman *et al.*, 2001).

Cyrtandra cretacea Kraenzl., J. Linn. Soc., Bot. 37: 279 (1906); Burt, Notes Roy. Bot. Gard. Edinburgh 30: 28 (1970). – Type: MALAYSIA. Sarawak, Niah, *Haviland & Hose* 3530 (holotype K [K000831558]).

Distribution. Sarawak (Kraenzlin, 1906; Burt, 1970).

Notes. Additional notes on the distribution and morphology of this species were provided in Burt (1970).

Cyrtandra crockerella Hilliard, Edinburgh J. Bot. 63: 214 (2006). – Type: MALAYSIA. Sabah, Apin-Apin, 350 m, 15 vii 2000, *Mendum, Gale & Surat* MM43 (holotype E (2 sheets) [E00114470, E00114471] and spirit [E00743701]; isotypes K n.v., L n.v.).

Distribution. Sabah (Hilliard & Burt, 2006b).

Notes. Isotypes of this species are cited as being in both K and L in the protologue, but neither has been found. It is possible that the duplicates from E were never distributed.

Cyrtandra crockeriana Hilliard & B.L.Burt, Edinburgh J. Bot. 61: 166 (2005). – Type: MALAYSIA. Sabah, Tunggol Forest Reserve, km 45, Penampang–Tambunan road, 9 ix 1991, *Krispinus* SAN 131339 (holotype SAN, isotype L [L.3794464]).

Distribution. Sabah (Hilliard, 2005).

Cyrtandra cuprea B.L.Burt, Notes Roy. Bot. Gard. Edinburgh 36: 164 (1978); Burt in Coode *et al.*, Checkl. Fl. Pl. Gymnosperms Brunei Darussalam: 132 (1997 [‘1996’]). – Type: MALAYSIA. Sarawak, First Division, Gunung Matang, 7 ix 1967, *Burt & Martin* B5149 (holotype E (2 sheets) [E00062428, E00062429] and spirit [E0000743638], isotype SAR n.v.).

Distribution. Sarawak, Kalimantan (Burt, 1978); Brunei (Burt, 1997).

Notes. An isotype at SAR is cited in the protologue of this species, but no specimen has been located there and it is possible that it was never distributed from E.

Cyrtandra dallasensis B.L.Burt, Edinburgh J. Bot. 49: 290 (1993); Beaman *et al.*, Pl. Mt. Kinabalu 4: 370 (2001). – Type: MALAYSIA. Sabah, Mt Kinabalu, Dallas, 3000 ft, 7 ix 1931, *Clemens & Clemens* 26345 (holotype K [K000831559]; isotypes BM [BM000997678], BO [BO-1727646], L [L0281124]).

Distribution. Sabah (Burt, 1993; Beaman *et al.*, 2001).

Cyrtandra dasymallos Hilliard & B.L.Burtt, Kew Bull. 59: 255 (2004). – Type: MALAYSIA.

Sarawak, Melinau gorge pathway, 23 vi 1962, *Burtt & Woods* B2248 (holotype E (2 sheets) [E00394475, E00394476] and spirit [E00743669]).

Distribution. Sarawak (Hilliard & Burtt, 2004).

Cyrtandra debilis Kraenzl., Repert. Spec. Nov. Regni Veg. 24: 219 (1928); Burtt, Edinburgh J. Bot. 47: 211 (1990). – Type: INDONESIA. South Kalimantan, zwischen M. Uja und Kundim Baru, 6 vii 1908, *Hubert Winkler* 2678 (lectotype WRSL, designated by Burtt, Edinburgh J. Bot. 47: 211 (1990)).

Bot. 47: 211 (1990). – Type: INDONESIA. South Kalimantan, zwischen M. Uja und Kundim Baru, 6 vii 1908, *Hubert Winkler* 2678 (lectotype WRSL, designated by Burtt, Edinburgh J. Bot. 47: 211 (1990)).

Distribution. Kalimantan (Kraenzlin, 1928; Burtt, 1990b).

Notes. Lauterbach (1910) cited three Hubert Winkler collections (*Winkler* 2678, 2831 and 3213) under '*Cyrtandra ? radiciflora* C.B.Clarke' in his account of the flora and plant geography of Borneo. Kraenzlin (1928) later listed the same three collections as syntypes of *Cyrtandra debilis*. Burtt (1990) selected *Winkler* 2678 as the lectotype of *C. debilis* as this is the only specimen of the original set that he was able to locate in Lauterbach's herbarium. There is also a note on the lectotype in WRSL stating '= *C. basiflora*' by O.Hilliard in 2003. This name may therefore need to be synonymised in the future as part of a full taxonomic revision.

Cyrtandra decipiens Hilliard & B.L.Burtt, Kew Bull. 59: 253 (2004). – Type: MALAYSIA.

Sarawak, Matang Forest Reserve, 9 iv 1981, *George* S.41733 (holotype E [E00394479]; isotypes L [L0350492], SAR). [Figure 1F](#).

Distribution. Sarawak (Hilliard & Burtt, 2004).

Cyrtandra deinandra B.L.Burtt, Edinburgh J. Bot. 61: 136 (2005). – Type: MALAYSIA. Sarawak, Ulu Mujong, Ga Amau, 900 m, 15 iv 1964, *Ashton* S.21240 (holotype E [E00394488]).

Distribution. Sarawak (Hilliard & Burtt, 2005a).

Notes. Unusually for Ashton collections, no duplicates have been traced in BO, SAR or SING.

Cyrtandra didissandriformis Merr., J. Malayan Branch Roy. Asiat. Soc. 1: 33 (1923);

Burtt, Notes Roy. Bot. Gard. Edinburgh 30: 26 (1970); Beaman *et al.*, Pl. Mt. Kinabalu 4: 370 (2001). – Type: MALAYSIA. British North Borneo [Sabah], Sandakan and vicinity, *Ramos* 1458 (lectotype K [K000831560], designated here; isolectotypes L [L0931131], P [P03884337], US [US00126243]).

Distribution. Sabah (Merrill, 1923a; Burtt, 1970; Beaman *et al.*, 2001).

Notes. This name was synonymised under *Cyrtandra areolata* when that name was first recombined in *Cyrtandra* (Burtt, 1970) but was later treated as a distinct species by Beaman *et al.* (2001). The new circumscriptions were supported by Hilliard and Burtt based on annotated specimens in the E herbarium (Atkins, personal observation).

Merrill (1923a) did not specify a herbarium when selecting a type for this species. The sheet in K is chosen here as the lectotype as it has both fruits and a flower and a good length of stem, showing the position of the inflorescences.

Cyrtandra digitaliflora B.L.Burtt, Notes Roy. Bot. Gard. Edinburgh 30: 28 (1970); Burtt in Coode *et al.*, Checkl. Fl. Pl. Gymnosperms Brunei Darussalam: 133 (1997 [‘1996’]). – Type: MALAYSIA. Sarawak, Fourth division, Gunung Mulu, c.4500 ft [1200–1300 m], 14 vi 1962, Burtt & Woods B2098 (holotype E [E00062489] and spirit [E00743625, E00743627]; isotypes K [K000939035], L [L.4418412], SAR).

Distribution. Sarawak (Burtt, 1970); Brunei (Burtt, 1997).

Cyrtandra dilatata C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 238 (1883); Burtt, Notes Roy. Bot. Gard. Edinburgh 36: 164 (1978). – Type: MALAYSIA. Sarawak, Rapide del Rejang, ix 1867, Beccari PB 3835 (holotype FI [FI013148]).

Distribution. Sarawak (Clarke, 1883; Burtt, 1978).

Notes. Additional specimens and sclereid information were recorded in Burtt (1978), as well as the morphological affinities of this species under the entry for *Cyrtandra incrustata* B.L.Burtt (Burtt, 1978).

Cyrtandra diplotricha B.L.Burtt, Edinburgh J. Bot. 47: 212 (1990); Hilliard & Burtt, Edinburgh J. Bot. 61: 141 (2005). – Type: MALAYSIA. Sarawak, Kapit District, Nanga Balang, extreme headwaters of Batang Balleh, 950 ft, 18 vii 1969, Anderson S.28899 (holotype E [E00062515] and spirit [E00743818]; isotypes A [A00216502], K [K000831561], L [L.2818325], SAR).

Distribution. Sarawak (Burtt, 1990b; Hilliard & Burtt, 2005a).

Notes. An updated description of this species was provided in Hilliard & Burtt (2005a). A number of morphologically similar specimens mentioned in the discussion following the original description of *Cyrtandra diplotricha* (Burtt, 1990) were transferred to other species in Hilliard & Burtt (2005a), namely *C. fuscovenosa* Hilliard & B.L.Burtt, *C. paravelutina* Hilliard & B.L.Burtt and *C. ramunculosa* Hilliard & B.L.Burtt.

Cyrtandra disparoides B.L.Burtt, Notes Roy. Bot. Gard. Edinburgh 36: 165 (1978). – Type: MALAYSIA. Sarawak, Third Division, SE end of Hose Mountains, below Bukit Mabong, 5 viii 1967, Burtt & Martin B4804 (holotype E 2 sheets [E00062570, E00062571] and spirit [E00743626]; isotypes KEP [KEP155307], L [L.4418269], SAR).

Distribution. Sarawak (Burtt, 1978); Sarawak, Kalimantan (Hilliard & Burtt, 2006b).

Cyrtandra disparoides B.L.Burtt subsp. *inconspicua* B.L.Burtt, Edinburgh J. Bot. 63: 215 (2006). – Type: MALAYSIA. Sarawak, Saribas, Kalong, vii 1892, Haviland 1574 (holotype K [K001057785]).

Distribution. Sarawak, Kalimantan (Hilliard & Burtt, 2006b).

Cyrandra dolichopoda B.L.Burtt, *Edinburgh J. Bot.* 49: 291 (1993); Beaman *et al.*, *Pl. Mt. Kinabalu* 4: 370 (2001). – Type: MALAYSIA. North Borneo [Sabah], Mt Kinabalu, Ulu Liwagu and Ulu Mesilau, 5000 ft, 6 ix 1961, Chew, Corner & Stainton RSNB 2811 (holotype E [E00062470] and spirit [E00743962]; isotypes K [K000831562], L [L0003282]).

Distribution. Sabah, Sarawak (Burtt, 1993); Sabah (Beaman *et al.*, 2001).

Cyrandra dorytricha Hilliard & B.L.Burtt, *Edinburgh J. Bot.* 61: 179 (2005). – Type: MALAYSIA. Sarawak, SE end of Hose Mts, near Bukit Semako, c.2200 ft, 17 viii 1967, Burtt & Martin B4948 (holotype E (2 sheets) [E00383703, E00383704]; isotypes K [K000857489], SAR).

Distribution. Sarawak (Hilliard & Burtt, 2005b).

Cyrandra dultiana Hilliard, *Edinburgh J. Bot.* 63: 216 (2006). – Type: MALAYSIA. Sarawak, near Long Kapa, Mount Dulit (Ulu Tinjar), c.700 m, 30 ix 1932, Richards 2089 (holotype K [K001057786], isotype L [L0350584]).

Distribution. Sarawak (Hilliard & Burtt, 2006b).

Cyrandra elatostemoides Elmer, *Leafl. Philipp. Bot.* 5: 1781 (1913); Atkins & Cronk, *Edinburgh J. Bot.* 58: 447 (2001); Beaman *et al.*, *Pl. Mt. Kinabalu* 4: 371 (2001); Olivar *et al.*, *Taxon* 71: 1092 (2022). – Type: PHILIPPINES. Palawan, Puerto Princesa (Mt Pulgar), Elmer 13207 (lectotype P [P03884334], designated by Olivar *et al.*, *Taxon* 71: 1092 (2022); isolectotypes BO [BO-1870745], E [E00062589], L [L.2818282]).

Cyrandra kraenzlinii Merr. in *Philipp. J. Sci.*, C. 10: 76 (1915); Olivar *et al.*, *Taxon* 71: 1092 (2022). – Type: PHILIPPINES. Palawan, ix 1910, Merrill 7247 (lectotype K [K000831632], designated by Olivar *et al.*, *Taxon* 71: 1092 (2022); isolectotypes BM [BM000798279], L [L.2825938], NY [NY00312663], P [P03555568], US [US00126276]).

Distribution. Philippines (Elmer, 1913; Atkins & Cronk, 2001; Olivar *et al.*, 2022); Sabah (Burtt, 1970; Beaman *et al.*, 2001).

Notes. Burtt (1970) recorded this species in Sabah for the first time and noted that Elmer originally spelled the epithet 'elatostemmoides' but later corrected it to 'elatostemoides' and also added information about the calyx and corolla that was not included in Elmer's 1913 description. The name was lectotypified by Olivar *et al.* (2022). *Cyrandra kraenzlinii* Merr. was placed in synonymy by Merrill (Merrill, 1923b) and lectotypified by Olivar *et al.* (2022).

Cyrandra elmeri Merr., *Univ. Calif. Publ. Bot.* 15: 271 (1929); Burtt in Coode *et al.*, *Checkl. Fl. Pl. Gymnosperms Brunei Darussalam*: 133 (1997 [1996]). – Type: MALAYSIA. Sabah, Tawao, Elmer 21582 (lectotype UC [UC 312145], designated here; isolectotypes BO

[BO-1870746], CAS [CAS0033131], CM [CM2053], L [L0003297], M [M-0185746], SING [SING0050767]).

Distribution. Sabah (Merrill, 1929b); Brunei (Burtt, 1997).

Notes. In the introduction to the account that includes the description of *Cyrtandra elmeri* (Merrill, 1929a), Merrill commented that the 'actual types' of the species described by him based on Elmer's collections from Borneo were deposited in the Philippine Bureau of Science Herbarium (PNH), with isotypes in the University of California Herbarium (UC). It is assumed that the 'actual type' or holotype at PNH was destroyed in the Second World War (Thiers, continuously updated), so the specimen at UC, which has fruits, is selected here as the lectotype.

Cyrtandra eminens C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 208 (1883). – Type: MALAYSIA. Sarawak, Colline del Bellaga, *Beccari* PB 3803 (holotype FI [FI013150]).

Distribution. Sarawak (Clarke, 1883).

Cyrtandra erectipila B.L.Burtt, Notes Roy. Bot. Gard. Edinburgh 30: 29 (1970). – Type: MALAYSIA. Sarawak, Lambir Hills, 6 vii 1962, *Burtt & Woods* B2421 (holotype E (2 sheets) [E00062424, E00062425] and spirit [E00743606]; isotypes K [K000618699], SAR).

Cyrtandra decurrens de Vriese var. *puncticulata* auct. non. C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 232 (1883), pro parte syntypes (Sarawak, *Beccari* 253 (A [A02312486], FI [FI013144], G-DC [G00493805], K [K000831563], M [M0185747], S [S11-10993]); *Beccari* PB 909 (FI [FI013147]).

Distribution. Sarawak (Burtt, 1970).

Notes. In his 1883 monograph of *Cyrtandra*, Clarke (1883) treated *C. decurrens* as a species with a distribution from Maluku to Peninsular Malaysia and with three varieties. See under that species in the *Excluded names* section for more detail. Two of the specimens cited under *Cyrtandra decurrens* var. *puncticulata* by Clarke were listed as pro parte syntypes for *C. erectipila* B.L.Burtt by Burtt (1970).

Cyrtandra erythrotricha B.L.Burtt in Coode *et al.*, Checkl. Fl. Pl. Gymnosperms Brunei Darussalam: 436 (1997 ['1996']); Hilliard & Burtt, Edinburgh J. Bot. 63: 217 (2006). – Type: MALAYSIA. Sarawak, Lambir Hills, 4 vii 1962, *Burtt & Woods* B2361 (holotype E 2 sheets [E00062505, E00032506]; isotypes A [A00307736], K [K000857494], KYO n.v., L [L3798916], NSW [NSW840807]).

Distribution. Brunei (Burtt, 1997); Brunei, Sarawak (Hilliard & Burtt, 2006b).

Notes. This species was published with a diagnosis only, and a full description was later given in Hilliard & Burtt (2006b).

Cyrtandra eximia C.B. Clarke in A. DC. & C. DC., *Monogr. Phan.* 5(1): 210 (1883); Burt, *Notes Roy. Bot. Gard. Edinburgh* 30: 30 (1970); Burt in Coode *et al.*, *Checkl. Fl. Pl. Gymnosperms Brunei Darussalam*: 133 (1997 [1996]); Hilliard & Burt, *Kew Bull.* 59: 256 (2004). – Type: MALAYSIA. Sarawak, Mte Mattang [Matang], iv 1866, *Beccari* PB 1440 (holotype FI [FI013149]). [Figure 1E](#).

Distribution. Sarawak (Clarke, 1883; Burt, 1970; Hilliard & Burt, 2004); Brunei (Burt, 1997).

Notes. Additional notes on distribution patterns and the morphology of this species were given in Burt (1970), and an updated description in Hilliard & Burt (2004). This species was listed for Brunei by Burt (1997), based on a single collection, Coode 6541, which was not listed by Hilliard & Burt (2004). The presence of this species in Brunei requires further investigation.

Cyrtandra farinosa C.B. Clarke in A. DC. & C. DC., *Monogr. Phan.* 5(1): 238 (1883); Burt, *Notes Roy. Bot. Gard. Edinburgh* 30: 31 (1970); Burt, *Edinburgh J. Bot.* 47: 213 (1990). – Type: MALAYSIA. Sarawak, presso Kuteing [Kuching] a Busso, vii 1865, *Beccari* PB 229 (holotype FI [FI013151]).

Distribution. Sarawak (Clarke, 1883; Burt, 1970, 1990b).

Notes. Additional specimens were cited and brief notes on this species were given in Burt (1970). There are additional notes and an illustration of the flowers of this species in Burt (1990b).

Cyrtandra filisecta B.L. Burt, *Edinburgh J. Bot.* 61: 151 (2005). – Type: INDONESIA. West Kalimantan, Gunong Bentuang, 250 m, 21 vi 1989, *Burley et al.* 2749 (holotype E [E00394492]; isotypes A [A00092296], K [K000831564], L [L0216008]).

Distribution. Sarawak, Kalimantan (Burt, 2005).

Notes. The specimens at both A and E are marked as holotypes; one in Hilliard's writing and one in Burt's. However, in fact, it is the specimen in E that is cited as the holotype in the protologue (Burt, 2005).

Cyrtandra foveolata Kraenzl., *Mitt. Inst. Allg. Bot. Hamburg* 7: 107 (1927); Hilliard, *Edinburgh J. Bot.* 61: 163 (2005). – Type: INDONESIA. West Borneo [West Kalimantan], am Sungai Obat, 100 m, 30 i 1925, *Hans Winkler* 1367 (holotype HBG [HBG-517497]).

Distribution. Kalimantan (Kraenzlin, 1927); Kalimantan, Sarawak (Hilliard, 2005).

Notes. A full description and discussion of morphologically similar species was given in Hilliard (2005).

Cyrtandra fulvisericea Bramley, *Blumea* 50: 173 (2005). – Type: MALAYSIA. British North Borneo [Sabah], Mt Kinabalu, Marai Parai, Gigisan creek, 4500 ft [1370 m], 27 iii 1933, *Clemens* & *Clemens* 32402 (holotype BM [BM000759877]; isotypes GH [GH 00518184], L [L0350675]).

Distribution. Brunei, Sabah, Sarawak, Kalimantan (Bramley, 2005).

Notes. The specimens cited under *Cyrtandra trisejala* in Beaman *et al.* (2001) from Mount Kinabalu are now considered *C. fulvisericea* (Bramley, 2005).

Cyrtandra fuscovenosa Hilliard & B.L.Burt, *Edinburgh J. Bot.* 61: 142 (2005). – Type: MALAYSIA. Sarawak, extreme headwaters of Balleh river, western slopes of Bukit Tibang, 3200 ft, 11 vii 1969, *Anderson* S.28652 (holotype E [E00394483]; isotypes K [K000831565], L [L0350615]).

Distribution. Sarawak (Hilliard & Burt, 2005a).

Cyrtandra geesinkiana B.L.Burt, *Edinburgh J. Bot.* 47: 214 (1990). – Type: INDONESIA. Kalimantan Timur, between Long Bawan and Panado, 1100–1200 m, 8 vii 1981, *Geesink* 8980 (holotype E [E00062480]; isotypes BO [BO-1419207, BO-1423017], L [L0003303, L0003304]).

Distribution. Sarawak, Kalimantan (Burt, 1990b).

Cyrtandra gibbsiae S.Moore, *J. Linn. Soc., Bot.* 42: 116 (1914); Burt, *Notes Roy. Bot. Gard. Edinburgh* 30: 31 (1970); Beaman *et al.*, *Pl. Mt. Kinabalu* 4: 371 (2001). – Type: MALAYSIA. British North Borneo [Sabah], hills above Tenom, 600 m, *Gibbs* 3113 (holotype BM [BM000997675]).

Distribution. Sabah (Moore, 1914; Beaman *et al.*, 2001); Sabah, Sarawak (Burt, 1970).

Notes. Some additional morphological notes, including diagnostic characters that distinguish this species from *Cyrtandra elatostemoides* and *C. quinquenotata*, are given in Burt (1970), and additional specimens are cited that increase the distribution to include Sarawak.

Cyrtandra gillettiana B.L.Burt, *Notes Roy. Bot. Gard. Edinburgh* 36: 165 (1978). – Type: MALAYSIA. Sarawak, Third Division, SE end of Hose Mountains, near Bukit Semako, c.2200 ft [660 m], 16 viii 1967, *Burt & Martin* B4945 (holotype E (2 sheets) [E00062475, E00062476] and spirit [E00743969]; isotypes K [K000857492], L [L.3798914], SAR).

Distribution. Sarawak (Burt, 1978).

Cyrtandra hansenii B.L.Burt, *Edinburgh J. Bot.* 47: 216 (1990). – Type: MALAYSIA. Sarawak, Gunung Mulu National Park, Camp 4, 1750 m, 19 iii 1978, *Hansen* 510 (holotype C (2 sheets) [C10012749, C10012750]).

Distribution. Sarawak (Burt, 1990b).

Cyrtandra hiranoi B.L.Burt, *Edinburgh J. Bot.* 61: 131 (2005). – Type: MALAYSIA. Sarawak, Bintulu district, eastern ridge of Bukit Kana, 800–950 m, 20 xi 1963, *Hirano & Hotta* 1433 (holotype E [E00394489], isotype KYO n.v.).

Distribution. Sarawak (Hilliard & Burt, 2005a).

Cyrtandra hololeuca B.L.Burt, *Notes Roy. Bot. Gard. Edinburgh* 36: 166 (1978); Burt in Coode *et al.*, *Checkl. Fl. Pl. Gymnosperms Brunei Darussalam*: 133 (1997 [‘1996’]). – Type: MALAYSIA. Sarawak, Fourth Division, Lambir Hills, 6 vii 1962, *Burt & Woods* B2420 (holotype E (2 sheets) [E00062477, E00062478] and spirit [E000743821]; isotypes K [K000939037], SAR). **Figure 1B**.

Distribution. Sarawak, Brunei (Burt, 1978); Brunei (Burt, 1997).

Cyrtandra horizontalis B.L.Burt, *Notes Roy. Bot. Gard. Edinburgh* 30: 32 (1970). – Type: MALAYSIA. Sarawak, route from Bakelalan to Gunung Murud, above Sungei Konap, c.4400 ft [1300 m], 23 ix 1967, *Burt & Martin* B5169 (holotype E (2 sheets) [E00062519, E00062520] and spirit [E00743611]; isotypes K [K000939605], L [L.4418405], SAR (2 sheets)).

Distribution. Sarawak (Burt, 1970).

Cyrtandra hoseana B.L.Burt, *Notes Roy. Bot. Gard. Edinburgh* 30: 33 (1970); Burt in Coode *et al.*, *Checkl. Fl. Pl. Gymnosperms Brunei Darussalam*: 133 (1997 [‘1996’]); Hilliard *et al.*, *Gard. Bull. Singapore* 55: 56 (2003). – Type: MALAYSIA. Sarawak, Lambir Hills, 5 vii 1962, *Burt & Woods* B2365 (holotype E [E00062501] and spirit [E00743615]; isotypes A [00307734], K [K001096782], SAR, WU [WU0044094]).

Distribution. Sarawak (Burt, 1970; Hilliard *et al.*, 2003); Brunei (Burt, 1997).

Notes. An updated description for this species was provided in Hilliard *et al.* (2003) when this species was assigned to the new section *Pleuroschisma*. This species was cited as also being in Brunei by Burt (1997), but the determination of the specimen cited as *Cyrtandra hoseana* in that account (*Sands* 5462) has subsequently been questioned (fide E herbarium, O. Hilliard), so its presence in Brunei is uncertain.

Cyrtandra hottae B.L.Burt, *Edinburgh J. Bot.* 47: 217 (1990); Hilliard & Burt, *Edinburgh J. Bot.* 61: 181 (2005). – Type: MALAYSIA. Sarawak, Fourth Division, Bintulu District, eastern part of Bukit Kana, along valley of Ulu Sungai Bejangung, 700–850 m, 21 xi 1963, *Hirano & Hotta* 15377 (holotype KYO n.v., isotype E [E00062545]).

Distribution. Sarawak (Burt, 1990b; Hilliard & Burt, 2005b).

Cyrtandra iliasii B.L.Burt, *Edinburgh J. Bot.* 47: 219 (1990); Bramley, *Blumea* 50: 176 (2005). – Type: MALAYSIA. Sarawak, SE end of Hose Mts, above Ulu Melinau falls,

c.4000 ft [1220 m], 20 viii 1967, *Burt & Martin* B5012 (holotype E (2 sheets) [E00062524, E00394431]; isotypes K [K001096781], L [L.4418392], SAR (2 sheets)).

Distribution. Sarawak (Burt, 1990b; Bramley, 2005).

Notes. An updated description, distribution map, and key to sect. *Dissimiles* were given in Bramley (2005).

Cyrtandra imminuta C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 254 (1883). – Type: MALAYSIA. Sarawak, Colline del Sakarang, 1867, *Beccari* PB 3858 (holotype FI [FI013156]).

Distribution. Sarawak (Clarke, 1883).

Cyrtandra impar Kraenzl., Mitt. Inst. Allg. Bot. Hamburg 7: 97 (1927); Burt, Notes Roy. Bot. Gard. Edinburgh 30: 33 (1970); Bramley, *Blumea* 50: 171 (2005). – Type: INDONESIA. West Borneo [West Kalimantan], auf dem Bidang Menabei, 26 xii 1924, *Hans Winkler* 1070 (holotype HBG [HBG-517486], isotype E [E00062531]).

Distribution. Kalimantan (Kraenzlin, 1927); Kalimantan, Sarawak (Burt, 1970; Bramley, 2005).

Notes. An updated description, distribution map, and key to sect. *Dissimiles* were included in Bramley (2005).

Cyrtandra incrustata B.L.Burt, Notes Roy. Bot. Gard. Edinburgh 36: 167 (1978). – Type: MALAYSIA. Sarawak, Fourth Division, Melinau Gorge pathway and camp, 24 vi 1962, *Burt & Woods* B2283 (holotype E (2 sheets) [E00062554, E00062555] and spirit [E00743616]; isotypes KEP [KEPONG 155355], L [L.4418409], SAR).

Distribution. Sarawak (Burt, 1978).

Cyrtandra insolita Hilliard & B.L.Burt, Gard. Bull. Singapore 55: 58 (2003). – Type: MALAYSIA. Sarawak, Kapit, Upper Rajang River, 1929, *Clemens & Clemens* 21236 (holotype K [K000831568]).

Distribution. Sarawak (Hilliard et al., 2003).

Cyrtandra integerrima B.L.Burt in Coode et al., Checkl. Fl. Pl. Gymnosperms Brunei Darussalam: 436 (1997 [‘1996’]); Hilliard & Burt, Edinburgh J. Bot. 62: 149 (2006). – Type: BRUNEI DARUSSALAM. Temburong, Batu Apoi Forest Reserve, ridge top of Kuala Belalong F.S. Centre, near Danish plot 1, 250 m, 20 v 1991, *Poulsen* 76 (holotype AAU; isotypes E [E00394493], K [K001376623]).

Distribution. Brunei, (Burt, 1997); Brunei, Sarawak (Hilliard & Burt, 2006a).

Notes. The original publication for this species was limited to a diagnosis. A more detailed discussion, including a description, was provided in Hilliard & Burt (2006a).

Cyrtandra kalimantana B.L.Burtt, *Edinburgh J. Bot.* 56: 374 (1999). – Type: INDONESIA. West Borneo [West Kalimantan], am Unterlauf des Serawei, um 80 m, 20 xi 1924, *Hans Winkler* 242 (holotype HBG (2 sheets) [HBG-527155, HBG-527156]; isotypes BO [BO-1402924], E [E00062521]).

Distribution. Kalimantan (Burtt, 1999).

Cyrtandra kanae B.L.Burtt, *Edinburgh J. Bot.* 63: 219 (2006). – Type: MALAYSIA. Sarawak, Bintulu district, along the valley of Ulu Sungai Bejangung, eastern part of Bukit Kana, 700–850 m, 21 xi 1963, *Hotta* 15412 (holotype KYO n.v., isotype E [E00482983]).

Distribution. Sarawak (Hilliard & Burtt, 2006b).

Cyrtandra keithii Hilliard & B.L.Burtt, *Edinburgh J. Bot.* 62: 150 (2006). – Type: MALAYSIA. British North Borneo [Sabah] Pengkalan, Tiaggau river, 340 ft, 8 vi 1938, *Keith* BNB Forestry Dept 9088 (holotype E [E00394432], isotype L [L.2821838]).

Distribution. Sabah (Hilliard & Burtt, 2006a).

Cyrtandra kermesina B.L.Burtt, *Edinburgh J. Bot.* 47: 220 (1990); Beaman *et al.*, *Pl. Mt. Kinabalu* 4: 371 (2001). – Type: MALAYSIA. Sabah, Ranau District, E Mesilau river between Mt Kinabalu golf course site and Mesilau cave, 1700–1900 m, 26 iii 1984, *Beaman* 9094 (holotype E [E00062450]; isotypes GH [GH00216500], K [K001376641], L [L0216032], MSC [MSC0273734], US [US00246072]).

Distribution. Sabah (Burtt, 1990b; Beaman *et al.*, 2001).

Cyrtandra kostermansii Hilliard & B.L.Burtt, *Kew Bull.* 59: 255 (2004). – Type: INDONESIA, East Indonesian Borneo [East Kalimantan], Berau, Mt Njapa on Kelai river, 100 m, 18 x 1963, *Kostermans* 21342 (holotype K [K000831571]; isotypes BO [BO-1734292], L [L0350487], P [P03934030]).

Distribution. Kalimantan (Hilliard & Burtt, 2004).

Cyrtandra lacerata B.L.Burtt, *Bot. J. Linn. Soc.* 85: 20 (1982); Burtt in Coode *et al.*, *Checkl. Fl. Pl. Gymnosperms Brunei Darussalam*: 133 (1997 [‘1996’]). – Type: MALAYSIA. Sarawak, Gunung Mulu National Park, boundary near Sg. Langsat, 16 xi 1977, *Argent et al.* 763 [not 673] (holotype E [E00062569], isotype SAR).

Distribution. Sarawak (Burtt, 1982); Brunei (Burtt, 1997).

Notes. The specimen marked as the holotype of this species in E and determined as such by Burtt is *Argent et al.* 763. The collection number appears to be incorrectly cited in the protologue as *Argent et al.* 673. The correct collection number is provided here.

Cyrtandra lambirensis B.L.Burt, Notes Roy. Bot. Gard. Edinburgh 30: 34 (1970); Burt in Coode *et al.*, Checkl. Fl. Pl. Gymnosperms Brunei Darussalam: 134 (1997 [‘1996’]). – Type: MALAYSIA. Sarawak, Lambir Hills, 4 vii 1962, *Burt & Woods* B2360 (holotype E (2 sheets) [E00062543, E00062544] and spirit [E00743599]; isotypes KEP [KEPONG 15580], SAR).

Distribution. Sarawak (Burt, 1970); Brunei (Burt, 1997).

Cyrtandra lanata Hilliard & B.L.Burt, Kew Bull. 59: 254 (2004). – Type: MALAYSIA. Sabah, Kinabalu summit trail, 1950 m, 28 vii 1998, *Cronk et al.* 20 (holotype E [E00069784]).

Distribution. Sabah (Hilliard & Burt, 2004).

Cyrtandra latibracteata Hilliard & B.L.Burt, Edinburgh J. Bot. 61: 178 (2005). – Type: MALAYSIA. North Borneo [Sabah], Mt Kinabalu, eastern shoulder, 3500 ft, 18 vi 1961, *Chew, Corner & Stainton* RSNB 643 (holotype E [E00383705] and spirit [E00743741]; isotypes K [K000831572], L [L0350475, L0350476], US [US00080957]).

Distribution. Sabah, Sarawak (Hilliard & Burt, 2005b).

Notes. The specimens listed under *Cyrtandra phoenicolasia* Lauterb. from Mount Kinabalu in Beaman *et al.* (2001) are now considered *C. latibracteata* (Hilliard & Burt, 2005b).

Cyrtandra leiocrater B.L.Burt, Edinburgh J. Bot. 49: 292 (1993); Beaman *et al.*, Pl. Mt. Kinabalu 4: 371 (2001). – Type: MALAYSIA. Sabah, Mt Kinabalu, Kinataki R., 4500 ft, 7 iii 1933, *Carr* SFN26442 (holotype SING [SING0200590]).

Distribution. Sabah (Burt, 1993; Beaman *et al.*, 2001).

Cyrtandra leucochlamys B.L.Burt, Notes Roy. Bot. Gard. Edinburgh 36: 169 (1978). – Type: MALAYSIA. Sarawak, First Division, Semengoh Forest Reserve, 12 miles south of Kuching, 24 vii 1967, *Burt & Martin* B4713 (holotype E [E00062514] and spirit [E00743600], isotype SAR).

Distribution. Sarawak (Burt, 1978).

Notes. An illustration of the inflorescence and dissected flower is provided in Burt (1978).

Cyrtandra libauensis Hilliard, Edinburgh J. Bot. 63: 220 (2006). – Type: MALAYSIA. Sarawak, Sungai Libau, Sungai Entulu, Sungai Mengiong, Batang Baleh, Kapit, 20 vii 1987, *Lee* S.54680 (holotype E [E00394491]; isotypes K [K001376982], SAR).

Distribution. Sarawak (Hilliard & Burt, 2006b).

Cyrtandra linauana B.L.Burt, Gard. Bull. Singapore 55: 54 (2003). – Type: MALAYSIA. Sarawak, Belaga District, hill just N of Long Linau, *Burt* B11478 (holotype E [E00259926]; isotypes BO [BO-1915832], L [L0538542], SAR).

Distribution. Sarawak (Hilliard *et al.*, 2003).

Cyrtandra lineariloba Hilliard & B.L.Burtt, *Edinburgh J. Bot.* 62: 152 (2006). – Type: MALAYSIA. British North Borneo [Sabah], Mt Kinabalu, Penibukan, 4000 ft, 5 xi 1933, *Clemens & Clemens* 50235 (holotype K [K001057787]; isotypes A [A00518185], L [L0931364]).

Distribution. Sabah (Hilliard & Burtt, 2006a).

Cyrtandra longicarpa Merr., *J. Malayan Branch Roy. Asiat. Soc.* 1: 34 (1923); Beaman *et al.*, *Pl. Mt. Kinabalu* 4: 372 (2001); Hilliard & Burtt, *Edinburgh J. Bot.* 63: 221 (2006). – Type: MALAYSIA. Sabah, Batu Lima near Sandakan, x 1920, *Ramos* 1359 (holotype not traced); Sandakan and vicinity, x–xii 1920, *Ramos* 1265 (neotype K [K000831573], designated by Hilliard & Burtt, *Edinburgh J. Bot.* 63: 221 (2006); isoneotypes BO [BO-1871022], US [US0080894]).

Cyrtandra prolata B.L.Burtt in Coode *et al.*, *Checkl. Fl. Pl. Gymnosperms Brunei Darussalam*: 436 (1997 [‘1996’]). – Type: MALAYSIA. Sarawak, Lambir N.P., Sungai Liam Libau, 18 ix 1978, *Burtt* B11518 (holotype E [E00062511] and spirit [E00743565]; isotypes E [E00394486], K [K000857490], L [L.3798927], SAR).

Distribution. Sabah (Merrill, 1923a; Beaman *et al.*, 2001); Brunei (Burtt, 1997); Sabah, Sarawak, Brunei (Hilliard & Burtt, 2006b).

Notes. *Cyrtandra longicarpa* was neotypified by Hilliard & Burtt (2006b), and *C. prolata* placed in synonymy in the same publication.

Cyrtandra magnoliifolia Kraenzl., *Mitt. Inst. Allg. Bot. Hamburg* 7: 106 (1927). – Type: INDONESIA. West Borneo [West Kalimantan], Bei Lebang Hara, 1 i 1925, *Hans Winkler* 1164 (holotype HBG (2 sheets) [HBG-517479, HBG-517480]).

Distribution. Kalimantan (Kraenzlin, 1927).

Notes. The original spelling of this name, ‘magnoliaefolia’, is corrected here to ‘magnoliifolia’ following Article 60.10 of the *Code* (Turland *et al.*, 2018).

Cyrtandra martinii B.L.Burtt, *Notes Roy. Bot. Gard. Edinburgh* 36: 170 (1978). – Type: MALAYSIA. Sarawak, Third Division, SE Hose Mts, gorge of Sungei Simpurai, c.420 m, 14 viii 1967, *Burtt & Martin* B4918 (holotype E (2 sheets) [E00062535, E00062536] and spirit [E00743580]; isotypes KEP [KEP155951], K [K000939603, K000939604], L [L.4418406], SAR).

Distribution. Sarawak (Burtt, 1978).

Notes. An illustration of the fruits and flowers of this species is given in Burtt (1978).

Cyrtandra megalocrater Kraenzl., *Mitt. Inst. Allg. Bot. Hamburg* 7: 111 (1927); Burtt, *Notes Roy. Bot. Gard. Edinburgh* 30: 35 (1970); Hilliard, *Edinburgh J. Bot.* 61: 160 (2005). – Type: INDONESIA. West Borneo [West Kalimantan], Am unteren Serawei, 10 i 1925, *Hans Winkler* 1261 (lectotype HBG (2 sheets) [HBG-517474, HBG-517475], designated by Hilliard, *Edinburgh J. Bot.* 61: 160 (2005); isolectotypes BO [BO-1370270], E [E00062466]).

Distribution. Kalimantan (Kraenzlin, 1927; Hilliard, 2005); Kalimantan, Sarawak (Burt, 1970).

Notes. This species was lectotypified by Hilliard (2005) from the three collections originally cited by Kraenzlin (1927). Burt (1970) and Hilliard (2005) provided a discussion of the morphologically similar species, its distribution as well as some observations on Kraenzlin's original description.

Cyrtandra megaphylla Hilliard & B.L.Burt, *Edinburgh J. Bot.* 61: 175 (2005). – Type: MALAYSIA. Sarawak, Sungai Bena, tributary of Sungai Sut, 23 vii 1962, *Burt* B2603 (holotype E (2 sheets) [E00383709, E00383710] and spirit [E00743581]; isotypes A [A00273114], K [K000857488, K001096791], L [L.4418263, L.3798933], SAR).

Distribution. Sarawak (Hilliard & Burt, 2005b).

Cyrtandra mendumiae Hilliard & B.L.Burt, *Edinburgh J. Bot.* 62: 153 (2006). – Type: MALAYSIA. Sabah, Apin-Apin, 350 m, 15 vii 2000, *Mendum* et al. MM46 (holotype E (2 sheets) [E00114021, E00114037] and spirit [E00743571], isotype SAN n.v.).

Distribution. Sabah (Hilliard & Burt, 2006a).

Notes. The original spelling of 'mendumae' is corrected here to 'mendumiae' following Article 60.8 of the *Code* (Turland et al., 2018). A duplicate of this specimen is cited in the protologue as being in SAN, but this has not been found.

Cyrtandra mesilauensis B.L.Burt, *Edinburgh J. Bot.* 47: 222 (1990); Beaman et al., *Pl. Mt. Kinabalu* 4: 372 (2001). – Type: MALAYSIA. Sabah, Ranau District, East Mesilau river, between Kinabalu golf course site and Mesilau cave, 1700–1900 m, 26 iii 1984, *Beaman* 9080 (holotype MSC [MSC0273735]; isotypes E [E00062508], K [K000831576], L [L0216037], US [US00056562]).

Distribution. Sabah (Burt, 1990b; Beaman et al., 2001).

Cyrtandra microcarpa C.B.Clarke in A.DC. & C.DC., *Monogr. Phan.* 5(1): 244 (1883); Hilliard & Burt, *Edinburgh J. Bot.* 63: 223 (2006). – Type: MALAYSIA. Sarawak, Kuteing [Kuching], xii 1865, *Beccari* PB 1222 (lectotype FI [FI013162], designated by Hilliard, *Edinburgh J. Bot.* 63: 223 (2006); isolectotypes K [K000096621, K000096622]).

Cyrtandra borneensis C.B.Clarke in A.DC. & C.DC., *Monogr. Phan.* 5(1): 244 (1883). – Type: MALAYSIA. Borneo, *Lobb* s.n. (holotype K [K000096623]).

Distribution. Sarawak (Clarke, 1883; Hilliard & Burt, 2006b).

Notes. *Cyrtandra borneensis* was placed in synonymy by Hilliard & Burt (2006b), and a lectotype was selected for *Cyrtandra microcarpa* in the same publication.

Cyrtandra mirabilis C.B. Clarke in A. DC. & C. DC., *Monogr. Phan.* 5(1): 283 (1883); Burt, *Notes Roy. Bot. Gard. Edinburgh* 30: 35 (1970). – Type: INDONESIA. Borneo [West Kalimantan], Landak, *Teijsmann* 11224 (holotype FI [FI013164]; isotypes BO [BO-1370276, BO-1370277, BO-1370278]).

Distribution. Kalimantan (Clarke, 1883); Sarawak, Kalimantan (Burt, 1970).

Notes. Additional description and specimens cited in Burt (1970).

Cyrtandra multibracteata C.B. Clarke in A. DC. & C. DC., *Monogr. Phan.* 5(1): 253 (1883); Burt, *Notes Roy. Bot. Gard. Edinburgh* 30: 36 (1970); Beaman *et al.*, *Pl. Mt. Kinabalu* 4: 372 (2001); Bramley, *Blumea* 50: 179 (2005). – Type: MALAYSIA. Sarawak, Colline del Bellaga [Belaga], ix 1867, *Beccari* PB 3777 (holotype FI [FI013165]).

Distribution. Sarawak (Clarke, 1883; Burt, 1970); Sabah (Beaman *et al.*, 2001); Sarawak, Kalimantan (Bramley, 2005).

Notes. Additional morphological notes on this species were given in Burt (1970), and an updated description, distribution map, and discussion of diagnostic characters were given in Bramley (2005).

Cyrtandra multicaulis B.L. Burt, *Edinburgh J. Bot.* 49: 292 (1993). – Type: MALAYSIA. Sarawak, Bau District, S end Gunung Doya above Kampong Seromah, 23 v 1975, *Burt* B8183 (holotype E (2 sheets) [E00062431, E00062432]; isotypes K [K001096789], L [L.4418401], SAR).

Distribution. Sarawak (Burt, 1993).

Cyrtandra muluensis B.L. Burt, *Notes Roy. Bot. Gard. Edinburgh* 36: 171 (1978). – Type: MALAYSIA. Sarawak, Baram, G. Mulu, path from Sungei Melinau Paku, 4200 ft [1260 m], 28 vi 1961, *Anderson* 4244 (holotype SAR, isotype K [K000831577]).

Distribution. Sarawak (Burt, 1978).

Cyrtandra neiothiantha B.L. Burt in Coode *et al.*, *Checkl. Fl. Pl. Gymnosperms Brunei Darussalam*: 436 (1997 [1996]); Hilliard & B.L. Burt, *Edinburgh J. Bot.* 62: 154 (2006). – Type: BRUNEI DARUSSALAM. Temburong, east ridge above Kuala Belalong F.S. Centre, 7 iii 1991, *Argent & Mitchell* 91204 (holotype E [E00062457]).

Distribution. Brunei (Burt, 1997; Hilliard & Burt, 2006a).

Notes. This name was published with only a diagnosis. A description for this species was provided in Hilliard & Burt (2006a).

Cyrtandra nibongensis Hilliard & B.L.Burtt, Kew Bull. 59: 257 (2004). – Type: MALAYSIA.

Sarawak, SE end of Hose Mts, Bukit Nibong, 7 viii 1967, *Burtt & Martin* B4830 (holotype E (2 sheets) [E00394481, E00394482] and spirit [E00743585], isotype SAR).

Distribution. Sarawak (Hilliard & Burtt, 2004).

Cyrtandra oblongifolia (Blume) Benth. & Hook.f. ex C.B.Clarke in A.DC. & C.DC., Monogr.

Phan. 5(1): 206 (1883); Burtt, Notes Roy. Bot. Gard. Edinburgh 30: 36 (1970); Burtt in Coode *et al.*, Checkl. Fl. Pl. Gymnosperms Brunei Darussalam: 134 (1997 [‘1996’]). – *Whitia oblongifolia* Blume, Cat. Gew. Buitenzorg (Blume): 17 (1823). – Type: INDONESIA. Java, Blume s.n. (lectotype L [L.2825707], designated by Wang *et al.*, Reinwardtia 21(2): 71 (2022); isolectotypes L [L.2825693, L.2825694]).

Distribution. Brunei, Kalimantan, Sarawak (Burtt, 1970); Sumatra, Java, Borneo (Wang *et al.*, 2022).

Notes. Additional notes on this species and specimens were cited in Burtt (1970), and a lectotype was designated by Wang *et al.* (2022). This is one of the most widespread species of *Cyrtandra* recorded, with a possible distribution including Sumatra and Java (Wang *et al.*, 2022). Further study is required to clarify the limits of this species and confirm its distribution.

Cyrtandra ochroleuca B.L.Burtt, Notes Roy. Bot. Gard. Edinburgh 36: 172 (1978). – Type:

MALAYSIA. Sarawak, First Division, Lundu District, Gunung Gading, 5 viii 1962, *Burtt & Woods* B2691 (holotype E (2 sheets) [E00062455, E00062456] and spirit [E00743577]; isotypes A [A00273115], L [L0538541], K (2 sheets) [K000831578, K000831579], SAR).

Distribution. Sarawak (Burtt, 1978).

Notes. A discussion of the morphology of this species is given in Burtt (1978).

Cyrtandra palimasanica Hilliard & B.L.Burtt, Edinburgh J. Bot. 62: 155 (2006). – Type:

INDONESIA. East Kalimantan, West Kutai, Mt Palimasan near Tabang on Belajan river, 100 m, 7 ix 1956, *Kostermans* 12750 (holotype L [L0931132]).

Distribution. Kalimantan (Hilliard & Burtt, 2006a).

Cyrtandra papyracea B.L.Burtt, Edinburgh J. Bot. 49: 293 (1993). – Type: MALAYSIA.

Sarawak, Kapit, Bukit Raya, 4 x 1965, *Jugah ak Kudi* S.23821 (holotype L [L0281118]; isotypes K [K000831580], SAR).

Distribution. Sarawak (Burtt, 1993).

Cyrtandra paragibbsiae B.L.Burtt in Coode *et al.*, Checkl. Fl. Pl. Gymnosperms Brunei

Darussalam: 436 (1997 [‘1996’]); Burtt, Edinburgh J. Bot. 61: 152 (2005). – Type: BRUNEI

DARUSSALAM. Temburong, Amo, Apoi F.R., Temburong river catchment, Apan tributary of Sg. Tulan, 120–130 m, 14 vii 1993, *Sands* 5800 (holotype K [K000831581]; isotypes BRUN [B000713, B000714], E [E00394477, E00394478], L [L.3794215, L.3794216]).

Distribution. Brunei (Burt, 1997; Burt, 2005).

Notes. This name was published with a diagnosis only (Burt, 1997). A full description of this species was provided in Burt (2005).

Cyrtandra paravelutina Hilliard & B.L.Burt, *Edinburgh J. Bot.* 61: 143 (2005). – Type: INDONESIA. West Borneo [West Kalimantan], auf dem Bukit Tilung, 900 m, 9 ii 1925, *Hans Winkler* 1522 (holotype E [E00394484]; isotypes HBG [HBG-527153, HBG-527154]).

Distribution. Kalimantan (Hilliard & Burt, 2005a).

Cyrtandra parvifructa Hilliard, *Edinburgh J. Bot.* 62: 157 (2006). – Type: INDONESIA. Central Kalimantan, Project Barito Ulu, Pamanang Logging Concession, logging camp c. km 20, 22 vi 1990, *Ridsdale* PBU590 (holotype E [E00383701]; isotypes K [K001057788], L [L0215994]).

Distribution. Kalimantan (Hilliard & Burt, 2006a).

Cyrtandra paxiana Lauterb., *Bot. Jahrb. Syst.* 44: 540 (1910); Hilliard, *Edinburgh J. Bot.* 61: 168 (2005). – Type: INDONESIA. South West Borneo [South Kalimantan], zwischen Batu Babi und Lumowia, 10 vii 1908, *Hubert Winkler* 2818 (lectotype WRSL, designated here; isolectotypes BM [BM000759839], L [L.2826056]).

Distribution. Kalimantan (Lauterbach, 1910; Hilliard, 2005).

Notes. The Hubert Winkler specimen in the herbarium in WRSL is selected here as the lectotype because no herbarium was cited at the time of publication (Lauterbach, 1910). The primary set of Hubert Winkler specimens are understood to be at WRSL (Van Steenis-Kruseman, 2022), and this specimen is the most complete of the duplicates seen, having inflorescences and also an illustration of the corolla. A full description of this species was given in Hilliard (2005).

Cyrtandra pedicellata B.L.Burt, *Edinburgh J. Bot.* 47: 223 (1990); Beaman et al., *Pl. Mt. Kinabalu* 4: 373 (2001). – Type: MALAYSIA. North Borneo [Sabah], Ranau, Mesilau, c.4200 ft, 21 vii 1963, *Meijer* SAN 38559 (holotype E [E00062447]; isotypes K [K000831587], SAN).

Distribution. Sabah (Burt, 1990b; Beaman et al., 2001).

Cyrtandra penduliflora Kraenzl., *Mitt. Inst. Allg. Bot. Hamburg* 7: 100 (1927); Burt, *Notes Roy. Bot. Gard. Edinburgh* 30: 36 (1970); Burt in Coode et al., *Checkl. Fl. Pl. Gymnosperms Brunei Darussalam*: 134 (1997 [‘1996’]); Hilliard, *Gard. Bull. Singapore* 55: 41 (2003). – Type: INDONESIA. West Borneo [West Kalimantan], Auf dem Bukit

Obat, 150 m, 29 i 925, *Hans Winkler* 1328 (lectotype HBG (2 sheets) [HBG-517465, HBG-517466], designated by Burttt, Notes Roy. Bot. Gard. Edinburgh 30: 36 (1970); isolectotypes BO [BO-1257673, BO-1370275], E [E00062497], HBG [HBG-517467]).

Figure 1C.

Distribution. Kalimantan (Kraenzlin, 1927); Sarawak, Brunei (Burttt, 1970); Brunei (Burttt, 1997); Kalimantan, Sarawak (Hilliard *et al.*, 2003).

Notes. This name was lectotypified by Burttt (1970) from the various collections originally cited by Kraenzlin (1927). An updated description and additional specimens were cited by Hilliard *et al.* (2003) where it was placed in the new section *Pleuroschisma* Hilliard & B.L.Burttt. In this paper, Hilliard *et al.* (2003) did not cite any specimens from Brunei, and one of the collections listed in Burttt (1997) as being from Brunei was listed under *Cyrtandra penduliflora* var. *grossipilosa* Hilliard & B.L.Burttt, so the presence of the typical variety in Brunei needs to be confirmed.

Cyrtandra penduliflora* var. *grossipilosa Hilliard & B.L.Burttt, Gard. Bull. Singapore 55: 42 (2003). – Type: MALAYSIA. Sarawak, ascent to Gunung Mulu, 13 vi 1962, *Burttt & Woods* B2060 (holotype E (2 sheets) [E00259933, E00259934] and spirit [E00743578], isotype SAR).

Distribution. Brunei, Sarawak, Kalimantan (Hilliard *et al.*, 2003).

Cyrtandra phoenicoides Hilliard & B.L.Burttt, Edinburgh J. Bot. 61: 177 (2005). – Type: MALAYSIA. Sarawak, Gunung Mulu National Park, between Sungai Melinau and Sungai Trekan, c.400 ft, 15 vi 1975, *Burttt* B8282 (holotype E [E00383708] and spirit [E00743816]; isotypes A [A00273111], K [K000857491], L [L.3798915], SAR).

Distribution. Brunei, Sarawak (Hilliard & Burttt, 2005b).

Cyrtandra phoenicolasia Lauterb., Bot. Jahrb. Syst. 44: 541 (1910); – Type: INDONESIA. S.W. Borneo [Central Kalimantan] Zwischen Semurung und Sungai Tarik, 18 vii 1908, *Hubert Winkler* 3026 (lectotype WRSL n.v., designated by Hilliard & Burttt, Edinburgh J. Bot. 61: 174 (2005); isolectotypes BM [BM000759836], BO [BO-1257710], K [K000831588], L [L0350471]).

Distribution. Kalimantan (Lauterbach, 1910); Brunei (Burttt, 1997); Kalimantan, Sarawak (Hilliard & Burttt, 2005b).

Notes. A lectotype for this name was chosen by Hilliard & Burttt (2005b) from the two collections originally cited by Lauterbach (1910), *Winkler* 3026 and 2860, and they also provided an updated description. The *Winkler* 3026 specimen from WRSL cited by Hilliard and Burttt (2005b) as the lectotype has not been seen by the authors of this paper, nor have they seen the photocopy in the E herbarium cited. Presumably, they had seen both

collections. If *Winkler* 3026 cannot be located in the future, it may be desirable to designate *Winkler* 2860 as lectotype; this specimen is at WRSL, with a photograph at E, and the sheet has Lauterbach's handwriting on the label.

The specimens listed under *Cyrtandra phoenicolasia* from Mount Kinabalu in Beaman *et al.* (2001) are now considered *C. latibracteata* (Hilliard & Burtt, 2005b). The distribution of this species given in Hilliard & Burtt (2005b) does not include Brunei, so its presence there needs to be confirmed.

Cyrtandra plicata Hilliard, *Edinburgh J. Bot.* 63: 224 (2006). – Type: INDONESIA. West Kalimantan, Serawai, foothills SW of Bukit Raya, 1600 m, 19 x 1995, *Church, Ismail & Ruskandi* 2597 (holotype A [A00518186]).

Distribution. Kalimantan (Hilliard & Burtt, 2006b).

Cyrtandra poiensis B.L.Burtt, *Edinburgh J. Bot.* 47: 224 (1990). – Type: MALAYSIA. Sarawak, First Division, Poi Range, Gunung Berumpit, c.4000 ft, 12 viii 1962, *Burtt & Woods* B2780 (holotype E (2 sheets) [E00394428, E00394429] and spirit [E00743563]; isotypes K [K001096783], L [L.4418415], SAR).

Distribution. Sarawak (Burtt, 1990b).

Notes. An illustration of the flower of this species was given in Burtt (1990b).

Cyrtandra poikilophylla Kraenzl., *Mitt. Inst. Allg. Bot. Hamburg* 7: 109 (1927). – Type: INDONESIA. West Borneo [West Kalimantan], auf dem Bidang Menabai, 700 m, 26 xii 1924, *Hans Winkler* 1079 (holotype HBG [HBG-517458], isotype E [E00062510]).

Distribution. Kalimantan (Kraenzlin, 1927).

Cyrtandra poulsenii B.L.Burtt in Coode *et al.*, *Checkl. Fl. Pl. Gymnosperms Brunei Darussalam*: 436 (1997 [‘1996’]); Hilliard & B.L.Burtt, *Edinburgh J. Bot.* 63: 225 (2006). – Type: BRUNEI DARUSSALAM. Temburong, Batu Apoi F.R. Setap Shale formation, ridge W of Kuala Belalong Field Studies Centre, in Danish plot, 250 m, 1 iv 1991 to 1 iv 1992, *Poulsen* 119 (holotype AAU; isotypes E [E00394499, E00394500], K [K001376763]).

Cyrtandra glomeruliflora B.L.Burtt in Coode *et al.*, *Checkl. Fl. Pl. Gymnosperms Brunei Darussalam*: 436 (1997 [‘1996’]). – Type: BRUNEI DARUSSALAM. Seria, hill in the vicinity of Kampong Mendaram (Iban's long-house), 50–150 m, 17 xii 1963, *Hotta* 12632 (holotype E [E00062574], isotype KYO n.v.).

Distribution. Brunei (Burtt, 1997; Hilliard & Burtt, 2006b).

Notes. *Cyrtandra poulsenii* and *C. glomeruliflora* were both published with diagnoses only in a checklist of the Brunei flora (Burtt, 1997). *Cyrtandra glomeruliflora* was synonymised by Hilliard & Burtt (2006b), and a full description of *C. poulsenii* was provided at the same time.

Cyrtandra prostrata Kraenzl., Mitt. Inst. Allg. Bot. Hamburg 7: 104 (1927); Hilliard, Edinburgh J. Bot. 61: 167 (2005). – Type: INDONESIA. West Borneo [West Kalimantan], Im Westen des Bukit Mulu, 250 m, 5 i 1925, *Hans Winkler* 1181 (holotype HBG (2 sheets) [HBG-517456, HBG-517457]).

Distribution. Kalimantan (Kraenzlin, 1927; Hilliard, 2005).

Notes. An updated description and discussion of morphologically similar species were given in Hilliard (2005).

Cyrtandra pumilio B.L.Burtt, Edinburgh J. Bot. 61: 134 (2005). – Type: MALAYSIA. Sarawak, Baleh, N Amau, [Sungai] Mujong, c.300 m, 14 iv 1964, Paie S.19860 (holotype E [E00394412], isotype SAR).

Distribution. Sarawak (Hilliard & Burtt, 2005a).

Cyrtandra quinquenotata Kraenzl., Mitt. Inst. Allg. Bot. Hamburg 7: 105 (1927); B.L.Burtt, Notes Roy. Bot. Gard. Edinburgh 30: 37 (1970); Hilliard, Edinburgh J. Bot. 61: 164 (2005). – Type: INDONESIA. West Borneo [West Kalimantan], Auf dem Bidang Menabei, 700 m, 12 xii 1924, *Hans Winkler* 787 (holotype HBG (2 sheets) [HBG-517454, HBG-517455]).

Distribution. Kalimantan (Kraenzlin, 1927; Burtt, 1970; Hilliard, 2005).

Notes. Notes on sclereids and the morphological affinities of this species with *Cyrtandra elatostemoides* and *C. gibbsiae* were given in Burtt (1970). A complete description and additional notes on the were given in Hilliard (2005).

Cyrtandra radiciflora C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 239 (1883); Burtt, Notes Roy. Bot. Gard. Edinburgh 30: 37 (1970). – Type: MALAYSIA. Sarawak, Gading, *Beccari* PB 2318 (holotype FI [FI013166]). **Figure 1A.**

Distribution. Sarawak (Clarke, 1883; Burtt, 1970).

Notes. Additional specimens and brief morphological notes were given in Burtt (1970).

Cyrtandra ramunculosa Hilliard & B.L.Burtt, Edinburgh J. Bot. 61: 140 (2005). – Type: INDONESIA. East Borneo [North Kalimantan], Nunukan, north of Tarakan, xi 1953, *Meijer* 2265 (holotype L [L0350503]; isotypes BO [BO-1734256, BO-1734257], K [K000831591], P [P03934165]).

Distribution. Kalimantan (Hilliard & Burtt, 2005).

Cyrtandra robusta Kraenzl., Mitt. Inst. Allg. Bot. Hamburg 7: 112 (1927); Hilliard, Edinburgh J. Bot. 61(2&3): 159 (2005). – Type: INDONESIA. West Borneo [West Kalimantan], Auf dem Bukit Mehhipit, 800 m, 9 xii 1924, *Hans Winkler* 663 (lectotype HBG (2 sheets)

[HBG-517445, HBG-517446], designated by Hilliard, *Edinburgh J. Bot.* 61: 159 (2005); isolectotypes BO [BO-1726998], E [E00062463]).

Distribution. Kalimantan (Hilliard, 2005).

Notes. A fuller description of this species and the lectotypification was provided by Hilliard (2005).

Cyrtandra rubricalyx B.L.Burt, *Edinburgh J. Bot.* 49: 294 (1993); Beaman et al., *Pl. Mt. Kinabalu* 4: 373 (2001). – Type: MALAYSIA. North Borneo [Sabah], Mt Kinabalu, Eastern shoulder, Camp 1, 2500 ft, 26 vii 1961, *Chew, Corner & Stainton* RSNB 1181 (holotype E [E00062481]; isotypes K [K000831593], L [L0003275]).

Distribution. Sabah (Burt, 1993; Beaman et al., 2001).

Cyrtandra rubropicta Kraenzl., *Mitt. Inst. Allg. Bot. Hamburg* 7: 98 (1927); Burt, *Edinburgh J. Bot.* 47: 226 (1990); Bramley, *Blumea* 50: 181 (2005). – Type: INDONESIA. West Borneo [West Kalimantan], Auf dem Bidang Menabai, 700 m, 12 xii 1924, *Hans Winkler* 783 (holotype HBG (2 sheets) [HBG-517448, HBG-517449], isotype BO [BO-1726949]).

Distribution. Kalimantan (Kraenzlin, 1927); Kalimantan, Sarawak (Burt, 1990b; Bramley, 2005).

Notes. Morphological notes and an illustration of the flower were given in Burt (1990b). An updated description, distribution map, and discussion of diagnostic characters were provided by Bramley (2005).

Cyrtandra rufa Bakh.f., *Blumea* 6: 398 (1950); Burt, *Edinburgh J. Bot.* 56: 375 (1999). – Type: INDONESIA. Java, in de berg Mandara, *Reinwardt* s.n. (holotype L (2 sheets) [L0003276, L0003277]).

Distribution. Java, possibly Borneo (Bakhuizen van den Brink, 1950; Burt, 1999).

Notes. When Bakhuizen described *Cyrtandra rufa* (Bakhuizen, 1950), in addition to selecting a type from Java he also cited two collections from Borneo. These were *Korthals* s.n. collections from 'Borneo, without exact locality'. Later, when Burt described *Cyrtandra kalimantana* (Burt, 1999), he suggested that these two *Korthals* collections might actually be *Cyrtandra kalimantana*, although because they were sterile, it was difficult to be certain. Whether or not *Cyrtandra rufa* is present in Borneo will need to be considered as part of a full revision.

Cyrtandra russa C.B.Clarke in A.DC. & C.DC., *Monogr. Phan.* 5(1): 238 (1883); Burt, *Edinburgh J. Bot.* 47: 227 (1990). – Type: MALAYSIA. Sarawak, Banting, xi 1865, Beccari PB 498 (holotype FI [FI013168]).

Distribution. Sarawak (Burt, 1990b).

Cyrtandra sandakanensis B.L.Burtt, Edinburgh J. Bot. 47: 227 (1990). – Type: MALAYSIA. North Borneo [Sabah], Sandakan District, North boundary Sepilok F.R., 1 v 1962, Jaswar Singh SAN 34732 B (holotype L [L3983037]; isotypes K [K00096620], SAN).

Distribution. Sabah (Burtt, 1990b).

Cyrtandra sarawakensis C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 209 (1883); Burtt, Notes Roy. Bot. Gard. Edinburgh 30: 38 (1970); Hilliard et al., Gard. Bull. Singapore 55: 44 (2003). – Type: MALAYSIA. Sarawak, Kuteing [Kuching], vii 1865, *Beccari* PB 153 (lectotype FI [FI013170], designated by Burtt, Notes Roy. Bot. Gard. Edinburgh 30: 35 (1970); isolectotypes G-DC [G00493833], K [K000831514], P [P00258309]).

Distribution. Sarawak (Clarke, 1883; Burtt, 1970; Hilliard et al., 2003); Brunei (Burtt, 1997).

Notes. This species was lectotypified by Burtt (1970), and additional specimens were cited with brief morphological notes. Additional information was also provided by Hilliard et al. (2003), who placed it in the new section *Pleuroschisma*. The specimens listed under this species from Mount Kinabalu in Beaman et al. (2001) are now considered *Cyrtandra coacta* (Hilliard et al., 2003). The specimens listed as being *Cyrtandra sarawakensis* in the checklist of Brunei (Burtt, 1997) are not cited in Hilliard et al. (2003), so the presence of the species in Brunei needs to be confirmed.

Cyrtandra sarawakensis* var. *longipilosa Hilliard & B.L.Burtt, Gard. Bull. Singapore 55: 45 (2003). – Type: MALAYSIA. Sarawak, Melinau Community Forest, near base camp at Nanga Tunoh, 3 viii 1967, *Burtt & Martin* B4772 (holotype E (2 sheets) [E00259930, E00259931]; isotypes A [A00307735], K [K000857497], SAR).

Distribution. Sarawak (Hilliard et al., 2003).

Cyrtandra schizostyla C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 204 (1883); Burtt, Notes Roy. Bot. Gard. Edinburgh 30: 38 (1970); Hilliard & Burtt, Edinburgh J. Bot. 61: 135 (2005). – Type: MALAYSIA. Sarawak, Colline del Sakarang, x 1867, *Beccari* PB 3842 (lectotype FI [FI008086], designated by Burtt, Notes Roy. Bot. Gard. Edinburgh 30: 38 (1970)).

Distribution. Sarawak (Clarke, 1883; Burtt, 1970; Hilliard & Burtt, 2005a).

Notes. Burtt (1970) lectotypified this species and provided brief notes on the morphology. Hilliard & Burtt (2005a) provided a key to the group of species allied morphologically to this species, and an updated description.

Cyrtandra scutifolia B.L.Burtt, Notes Roy. Bot. Gard. Edinburgh 36: 173 (1978). – Type: MALAYSIA. Sarawak, Third Division, SE end of Hose Mts, Bukit Mabong, 5 viii 1967, *Burtt & Martin* B4805 (holotype E (3 sheets) [E00062490, E00062491, E00062492], isotype SAR).

Distribution. Sarawak (Burt, 1978).

Cyrtandra seganica Hilliard & B.L.Burt, Gard. Bull. Singapore 55: 52 (2003). – Type: MALAYSIA. Sarawak, Bintulu District, Ulu Segan, 24 viii 1968, *Ilias Paie* S.27215 (holotype E [E00259924]; isotypes L [L.2826374], SAR).

Distribution. Sarawak (Hilliard *et al.*, 2003).

Cyrtandra serratobracteata Lauterb., Bot. Jahrb. Syst. 44: 538 (1910); Hilliard, Edinburgh J. Bot. 61: 161 (2005). – Type: INDONESIA. [Central Kalimantan], zwischen Semurung und Sungai Tarik, 18 vii 1908, *Hubert Winkler* 3027 (lectotype WRSL, designated here).

Distribution. Kalimantan (Lauterbach, 1910; Hilliard, 2005).

Notes. A revised description of this species was given in Hilliard (2005) along with comments on Lauterbach's original description. Only one duplicate of this collection has been found, in Lauterbach's herbarium (WRSL); Lauterbach's handwriting is on the specimen label. We cannot be sure that Lauterbach did not view duplicates of this collection when describing this species – Hubert Winkler's collections were distributed among several herbaria including B, P and L – and although we have not located any other duplicates in our research so far, we select the specimen in WRSL as a lectotype as we are confident that this one was seen by the author.

Cyrtandra simplex Merr., J. Malayan Branch Roy. Asiat. Soc. 1: 35 (1923); Beaman *et al.*, Pl. Mt. Kinabalu 4: 374 (2001). – Type: MALAYSIA. British North Borneo [Sabah], Sandakan and vicinity, ix–xii 1920, *Ramos* 1234 (lectotype K designated here [K000831589]; isolectotypes A [A00054925], L [L.2826283], US [US00126343]).

Distribution. Sabah (Merrill, 1923a; Beaman *et al.*, 2001).

Notes. Merrill (1923a) did not specify the herbarium when selecting a type for this species, and it is probable that the top set was in PNH as that is where both Merrill and Ramos were working at the time (Merrill, 1922). This set is likely to have been destroyed during the Second World War (Thiers, continuously updated). A lectotype from the herbarium at K is selected here as it has an inflorescence at the base of the stem and a flower.

Cyrtandra sinclairiana B.L.Burt, Edinburgh J. Bot. 49: 295 (1993); Beaman *et al.*, Pl. Mt. Kinabalu 4: 374 (2001). – Type: MALAYSIA. North Borneo [Sabah], Mt Kinabalu, Lumulumu, 6100 ft, 15 vi 1957, Sinclair, *Kadim & Kapis* 9209 (holotype E [E00062433]; isotypes E [E00062434], K [K000831594], L [L0003199]).

Distribution. Sabah (Burt, 1993; Beaman *et al.*, 2001).

Cyrtandra smithiana B.L.Burt, Notes Roy. Bot. Gard. Edinburgh 36: 173 (1978); Beaman *et al.*, Pl. Mt. Kinabalu 4: 374 (2001). – Type: MALAYSIA. Sarawak, Third Division, SE end

of Hose Mts, Ulu Melinau Falls, c.3400 ft [1020 m], 22 viii 1967, *Burt & Martin* B5066 (holotype E (2 sheets) [E00062471, E00062472] and spirit [E000743677]; isotypes A [A00273112], K [K000857493], L [L.3798936, L.3798937], SAR, WU [WU0044095]).

Distribution. Sarawak (Burt, 1978); Sabah (Beaman *et al.*, 2001).

Notes. A discussion of the affinities and morphology of this species were given in Burt (1978), along with a full illustration.

Cyrtandra spelaea B.L.Burt, Notes Roy. Bot. Gard. Edinburgh 36: 174 (1978). – Type: MALAYSIA. Sarawak, Fourth Division, Niah Cave, 4 vi 1962, *Burt & Woods* B2018 (holotype E (2 sheets) [E00062547, E00062548] and spirit [E00743679], isotype SAR).

Distribution. Sarawak (Burt, 1978).

Notes. Some discussion of the habitat of this species and an illustration of the flowers and fruits was given in Burt (1978).

Cyrtandra splendens C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 209 (1883); Burt, Notes Roy. Bot. Gard. Edinburgh 30: 38 (1970). – Type: MALAYSIA, Sarawak, Piningiao, xi 1865, *Beccari* PB 947 (lectotype FI [FI013173], designated by Burt, Notes Roy. Bot. Gard. Edinburgh 30: 38 (1970); isolectotype K [K000831516]).

Cyrtandra mamillata Hallier f., Bull. Herb. Boissier vi: 287 (1898). – Type: INDONESIA. West Borneo, Lianggagang [Liang Gagang], 29 iii 1894, *Hallier* B3003 (lectotype BO [BO-1949281], designated here); isolectotypes BO [BO-1949280], L [L.2826248], NY [NY 00312680]).

Distribution. Borneo (Clarke, 1883; Hallier, 1898); Sarawak, Kalimantan (Burt, 1970).

Notes. *Cyrtandra mamillata* was listed as a synonym by Burt (1970), along with additional specimens and morphological notes. One of the sheets of *Hallier* B3003, listed by Boissier in BO, and with flowering and fruiting material in the capsule, is selected here as the lectotype.

Cyrtandra strictipes Kraenzl., Mitt. Inst. Allg. Bot. Hamburg 7: 109 (1927); Hilliard, Edinburgh J. Bot. 61: 169 (2005). – Type: INDONESIA. West Borneo [West Kalimantan], auf dem Bukit Raja, 1250 m, 17 xii 1924, *Hans Winkler* 918 (holotype HBG 2 sheets [HBG-517443, HBG-517444]).

Distribution. Kalimantan (Kraenzlin, 1927; Hilliard, 2005).

Notes. A full description and the morphological affinities of this species were given in Hilliard (2005), along with a diagram of a transverse section of a young fruit.

Cyrtandra subgrandis B.L.Burt, Notes Roy. Bot. Gard. Edinburgh 30: 39 (1970). – *Cyrtandra grandis* Kraenzl., Mitt. Inst. Allg. Bot. Hamburg 7: 110 (1927), nom illeg. non Blume

(1826); Hilliard, *Edinburgh J. Bot.* 61: 171 (2005). – Type: INDONESIA. West Borneo [West Kalimantan], Auf dem Bukit Obat, 90 m, 31 i 1925, *Hans Winkler* 1401 (holotype: HBG (2 sheets) [HBG-517441, HBG-517442], isotype BO [BO-1370271]).

Distribution. Sarawak (Burt, 1970), Sarawak, Kalimantan (Hilliard, 2005).

Cyrtandra sublanea Hilliard & B.L.Burt, *Edinburgh J. Bot.* 62: 158 (2006). – Type: BRUNEI DARUSSALAM. Temburong District, Kuala Temburong Machang, ridge bounded by the Temburong river, 260 m, 18 viii 1990, *Wong* 1952 (holotype K [K001057790], isotype BRUN [B008561]).

Distribution. Brunei (Hilliard & Burt, 2006a).

Cyrtandra subsphaerocarpa B.L.Burt, *Edinburgh J. Bot.* 61: 153 (2005). – Type: MALAYSIA. Sarawak, Balang/Balleh watershed ridge, extreme headwater of Balleh river, foothills of Bukit Batu Tibang, just below ridge at 3100 ft, 6 vii 1969, *Anderson* S28452 (holotype SAR; isotypes A [A00216503], E [E00383702], L [L0350570]).

Distribution. Sarawak (Burt, 2005).

Cyrtandra tenebrosa B.L.Burt, *Edinburgh J. Bot.* 47: 230 (1990); Burt in Coode et al., *Checkl. Fl. Pl. Gymnosperms Brunei Darussalam*: 134 (1997 [1996]). – Type: MALAYSIA. Sarawak, above Nanga Tunoh base camp below Bukit Mabong, 3 viii 1967, *Burt & Martin* B4783 (holotype E (2 sheets) [E00062453, E00062454] and spirit [E00743709], isotype SAR).

Distribution. Sarawak, Kalimantan (Burt, 1990b); Brunei (Burt, 1997).

Cyrtandra teres C.B.Clarke in A.DC. & C.DC., *Monogr. Phan.* 5(1): 207 (1883). – Type: INDONESIA. Borneo, B. Blitong, 1874, *Teijsmann* 8436 (holotype FI [FI013169]; isotypes BO [BO-1990827, BO-1990828, BO-1990829]).

Distribution. Borneo [Kalimantan] (Clarke, 1883).

Notes. The location of the type specimen is Bukit Belitang, in Sekadau Regency in West Kalimantan.

Cyrtandra tessellata Hilliard & B.L.Burt, *Gard. Bull. Singapore* 55: 51 (2003). – Type: MALAYSIA. Sarawak, Bintulu District, en route (survey route) from Sungai Mah to Sungai Shinonok, Ulu Sungai Minah, 40–150 m, *Hotta* 14117 (holotype KYO n.v.).

Distribution. Sarawak (Hilliard et al., 2003).

Cyrtandra thamnodes B.L.Burt, *Notes Roy. Bot. Gard. Edinburgh* 36: 177 (1978). – Type: MALAYSIA. Sarawak, First Division, Bukit Kapor, 22 v 1962, *Burt & Woods* B1885

(holotype E (2 sheets) [E00062537, E00062538] and spirit [E000743686]; isotypes K [K000939033], SAR).

Distribution. Sarawak (Burt, 1978).

Notes. A more detailed discussion of the morphology of this species was given in Burt (1978).

Cyrtandra tibangensis B.L.Burt, *Edinburgh J. Bot.* 61: 154 (2005). – Type: MALAYSIA. Sarawak, Bukit Batu Tibang, Ulu Sungai Balleh, 1300 m, 22 iv 1986, Yii et al. S.52189 (holotype E [E00016282], isotype SAR (2 sheets)).

Distribution. Sarawak (Burt, 2005).

Cyrtandra toreniiflora B.L.Burt, *Edinburgh J. Bot.* 61: 156 (2005). – Type: INDONESIA. East Kalimantan, Sungai Lunok, near camp Malimau, 23 xii 1982, Axelius 323 (holotype S [S07-17204]).

Distribution. Kalimantan, Sabah (Burt, 2005).

Cyrtandra trisepala C.B.Clarke in A.DC. & C.DC., *Monogr. Phan.* 5(1): 253 (1883); Burt, *Notes Roy. Bot. Gard. Edinburgh* 30: 39 (1970); Bramley, *Blumea* 50: 183 (2005). – Type: MALAYSIA. Sarawak, Gading, xii 1866, Beccari PB 2452 (lectotype FI [FI013176], designated by Burt, *Notes Roy. Bot. Gard. Edinburgh* 30: 39 (1970); isolectotype K [K000831537]). **Figure 1D.**

Cyrtandra producta Kraenzl., *Mitt. Inst. Allg. Bot. Hamburg* 7: 95 (1927). – Type: INDONESIA. West Borneo [West Kalimantan], Bukit Raja [Raya], Hans Winkler 968 (lectotype HBG (2 sheets) [HBG-517438, HBG-517439], designated by Bramley, *Blumea* 50: 183 (2005); isolectotypes BO [BO-1257714], E [E00062529]).

Distribution. Sarawak, Kalimantan (Clarke, 1883; Burt, 1970; Bramley, 2005).

Notes. *Cyrtandra trisepala* was lectotypified by Burt (1970), who also cited additional specimens and made some morphological observations. An updated description, distribution map, discussion of diagnostic characters, and synonymy were provided by Bramley (2005).

The specimens cited under *Cyrtandra trisepala* in Beaman et al. (2001) from Mount Kinabalu are now considered *C. fulvisericea* (Bramley, 2005).

Cyrtandra tubibractea Hilliard & B.L.Burt, *Edinburgh J. Bot.* 62: 159 (2006). – Type: MALAYSIA. Sabah, road from Tambunan to Trus Madi beyond Batu Lapan, 1200–1300 m, 23 x 1999, Davies et al. SJD 99283 (holotype A [A00518187], isotype E [E00394436]).

Distribution. Sabah (Hilliard & Burt, 2006a).

Cyrtandra tubiflora Kraenzl., J. Linn. Soc. Bot. 37: 276 (1906). – Type: MALAYSIA. North Borneo [Sarawak], Niah, vi 1894, *Haviland & Hose* 3537 (holotype K [K000831590], isotype SAR).

Distribution. Sarawak (Kraenzlin, 1906).

Cyrtandra tunohica Hilliard & B.L.Burtt, Gard. Bull. Singapore 55: 48 (2003). – Type: MALAYSIA. Sarawak, Kapit District, Sungai Melinau, Nanga Tunoh, c.450 ft, 22 iii 1980, *Burtt* B12664 (holotype E (3 sheets) [E00259927, E00259928, E00259932]; isotypes K [K001096786], SAR).

Distribution. Sarawak (Hilliard et al., 2003).

Cyrtandra undata Hilliard & B.L.Burtt, Edinburgh J. Bot. 62: 160 (2006). – Type: MALAYSIA. Sarawak, Bau, 23 iv 1955, *Brooke* 9854 (holotype L [L0931363]; isotypes SAR, US [US00081204]).

Distribution. Sarawak (Hilliard & Burtt, 2006a).

Cyrtandra uniflora B.L.Burtt, Bot. J. Linn. Soc. 85: 22 (1982). – Type: MALAYSIA. Sarawak, Gunung Mulu National Park, Hidden Valley (Camp 6), 900 m, 6 iv 1978, *Argent* et al. 914 (holotype E (2 sheets) [E00062578, E00394490], isotype SAR).

Distribution. Sarawak (Burtt, 1982).

Cyrtandra urceolata C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 236 (1883); Burtt, Notes Roy. Bot. Gard. Edinburgh 36: 177 (1978). – Type: INDONESIA. West Borneo, Landak, *Teijsmann* 11216 (holotype FI [FI013179], isotype BO [BO-1370279]).

Distribution. Kalimantan (Clarke, 1883); Sarawak, Kalimantan (Burtt, 1978).

Notes. Notes on the distribution of this species were given in Burtt, expanding the original distribution to include Sarawak (Burtt, 1978).

Cyrtandra vaginata B.L.Burtt, Edinburgh J. Bot. 63: 227 (2006). – Type: MALAYSIA. Sarawak, Nanga Balang, extreme headwaters of Batang Baleh, Kapit district, 950 ft, 30 vi 1969, *Anderson & Paie* S.28320 (holotype E [E00631358]; isotypes K [K001376854], L [L2826706], SAR).

Distribution. Sarawak (Hilliard & Burtt, 2006b).

Cyrtandra velutina Korth. ex C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 208 (1883); Burtt, Notes Roy. Bot. Gard. Edinburgh 30: 40 (1970); Hilliard & Burtt, Edinburgh J. Bot. 61: 139 (2005). – Type: INDONESIA. Borneo [Kalimantan], *Korthals* 248 (lectotype L [L0003206], designated by Burtt, Notes Roy. Bot. Gard. Edinburgh 30: 40 (1970); isolectotypes K [K000831513], L [L0350459]).

Distribution. Kalimantan (Clarke, 1883; Burtt, 1970; Hilliard & Burtt, 2005a).

Notes. An updated description and a key to morphologically similar species were given in Hilliard & Burtt (2005a).

Cyrtandra villifrutus Hilliard & B.L.Burtt, Kew Bull. 59: 258 (2004). – Type: MALAYSIA. Sarawak, western ridge of Gunung Mulu, 20 iii 1964, *Hotta* 15091 (holotype E [E00394480], isotype KYO n.v.).

Distribution. Sarawak (Hilliard & Burtt, 2004).

Cyrtandra vulpina (Kraenzl.) B.L.Burtt, Notes Roy. Bot. Gard. Edinburgh 36: 178 (1978). – *Didymocarpus vulpinus* Kraenzl., Mitt. Inst. Allg. Bot. Hamburg 7: 87 (1927). – Type: INDONESIA. West Borneo [West Kalimantan], am mittleren Serawei, c.130 m, 8 i 1925, *Hans Winkler* 1238 (holotype HBG [HBG-517431]).

Distribution. Sarawak, Kalimantan (Burtt, 1978).

Notes. A discussion of the morphological variation seen in this species is given in Burtt (1978).

Cyrtandra warburgiana Lauterb., Bot. Jahrb. Syst. 44: 540 (1910); Burtt, Notes Roy. Bot. Gard. Edinburgh 30: 40 (1970); *Beaman et al.*, Pl. Mt. Kinabalu 4: 374 (2001); Hilliard & Burtt, Edinburgh J. Bot. 62: 161 (2006). – Type: INDONESIA. [Central Kalimantan], zwischen Salina hu und Simpokak, 1908, *Hubert Winkler* 2987 (lectotype WRSL; isolectotype L [L0003208]).

Cyrtandra campanulata Merr., Univ. Calif. Publ. Bot. 15: 270 (1929), nom illeg. non Reinecke (1898). – Type: MALAYSIA. Sabah [British North Borneo], Tawao, x 1922 to iii 1923, *Elmer* 20867 (lectotype UC [UC312146], designated here; isolectotypes BISH [BISH1001880], BO [BO-1730867], BR [BR0000005173419], C [C10012755], CAS [CAS0033129], CM [CM200052], GH [GH00054923], HBG [HBG-517508], K [K001376871], L [L.2826616], M [M-0185739], MO [MO-176131], NY [NY00312641], PH [PH00009034], S [S11-11122], SING [SING0050765], U [U.1342410].

Distribution. Kalimantan (Lauterbach, 1910); Sabah (Merrill, 1929b; *Beaman et al.*, 2001); Kalimantan, Sabah, Sarawak (Burtt, 1970).

Notes. The type collection of *Cyrtandra warburgiana* at WRSL is annotated by Burtt as being the lectotype and was cited as such by Hilliard & Burtt (2006a). Because information is missing from the original description, an updated description to this species and clarification of species limits was given in Hilliard & Burtt (2006a).

The name *Cyrtandra campanulata* Merr. is a later homonym and therefore illegitimate. In the introduction to his 1929 paper on Bornean taxa, Merrill (1929a) explained that he worked

on two sets of specimens – one deposited in the herbarium in Manila, and another at the University of California – and that the set in Manila should be considered the ‘actual types’ and the California one the ‘isotype’. The holotype in PNH is presumed destroyed, so the specimen in UC, which we know was seen by Merrill and has an inflorescence, is selected here as the lectotype.

Cyrtandra weberi B.L.Burt, *Edinburgh J. Bot.* 47: 232 (1990); *Beaman et al.*, *Pl. Mt. Kinabalu* 4: 374 (2001); *Bramley, Blumea* 50: 186 (2005). – Type: MALAYSIA. Sabah, Mt Kinabalu, Kiau view trail, 1100 m, 21 ix 1979, *Weber* 790921-1/6 (holotype WU [WU 0131635]).

Distribution. Sabah (Burt, 1990b; Beaman *et al.*, 2001; Bramley, 2005).

Notes. An updated description, distribution map, and diagnostic features were provided by Bramley (2005).

Cyrtandra winkleri Lauterb., *Bot. Jahrb. Syst.* 44: 539 (1910). – Type: INDONESIA. [Central Kalimantan], zwischen Semurung und Sungei Tarik, 18 vii 1908, *Hubert Winkler* 3028 (lectotype WRS�, designated here).

Distribution. Kalimantan (Lauterbach, 1910).

Notes. A pencil rubbing and fragment of the specimen, including an inflorescence, is in WRS� and marked as the lectotype by Burt, although this lectotypification does not appear to have been published. This small fragment of specimen is the only original material, and it is assumed, following Bramley *et al.* (2023), that the pencil rubbing may have been made by Lauterbach on a visit to B, and that the original specimen was destroyed during the Second World War. Following Bramley *et al.* (2023), where the only original material is the pencil rubbing and fragment and it is the only visual reference of the type, the *Hubert Winkler* specimen is designated as the lectotype.

Cyrtandra woodsii B.L.Burt, *Notes Roy. Bot. Gard. Edinburgh* 30: 41 (1970). – Type: MALAYSIA. Sarawak, Pelagus Rapids on Batang Rejang, 21 vii 1962, *Burt & Woods* B2579 (holotype E (2 sheets) [E00394430, E00062435]; isotypes K [K000939038, K000939039], L [L.4418408], SAR).

Distribution. Sarawak (Burt, 1970).

Bornean *Cyrtandra* names of uncertain status

Cyrtandra anisopoda Kraenzl., *Notizbl. Bot. Gart. Berlin-Dahlem* 4: 292 (1907). – Type: INDONESIA. Borneo, [East Kalimantan], Samarinda, *Schlechter* 13355 (n.v.).

Distribution. Kalimantan (Kraenzlin, 1907).

Notes. Kraenzlin (1907) lists one collection in the protologue of this species, which is a

Schlechter collection from Samarinda, East Kalimantan. It has not been possible to find this collection, so it will be necessary to neotypify this species in the future as part of a full taxonomic revision.

Cyrtandra microcalyx Kraenzl., Notizbl. Konigl. Bot. Gart. Berlin 4: 292 (1907). – Type: INDONESIA. Borneo, [East Kalimantan], Long Sele, *Schlechter* 13490 (n.v.).

Distribution. Kalimantan (Kraenzlin, 1907).

Notes. Kraenzlin only lists one collection in the protologue of this species, a *Schlechter* collection from Kalimantan that has not been traced. It may be necessary to neotypify in the future if this collection cannot be found.

Cyrtandra punctatissima Kraenzl., Repert. Spec. Nov. Regni Veg. 24: 220 (1928). – Type: INDONESIA. [South Kalimantan], Zwischen Batu babi und Lumowia, *Hubert Winkler* 2845 (WRSL n.v.).

Distribution. Kalimantan (Kraenzlin, 1928).

Notes. There is a curatorial note in E that this species is probably *Henckelia* Spreng. (now presumably *Codonoboea*; Middleton *et al.*, 2013), but no combination has been made and should be considered as part of a full taxonomic revision of *Cyrtandra*. The type specimen cited as being at WRSL has not been found.

Natural hybrids

Cyrtandra areolata × *mesilauensis* – in Beaman *et al.* (2001: 368).

Cyrtandra kermesina × *clarkei* – in Beaman *et al.* (2001: 371).

Excluded names

Cyrtandra decurrens de Vriese var. ***puncticulata*** C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 232 (1883). – Type: INDONESIA, Papua, Andai, *Beccari* s.n. FI [FI0008085] (lectotype FI, designated here).

Notes. *Cyrtandra decurrens* de Vriese was described from a collection from Ambon in the Maluku province of Indonesia. In 1883, Clarke listed four varieties and expanded the distribution of the species from Peninsular Malaysia in the west to Papua in the east, an exceptionally wide distribution for *Cyrtandra*. It is now clear that Clarke's concept of the species was a phenetic assemblage rather than a natural group. Two of Clarke's varieties have been raised to species level: *Cyrtandra wallichii*, based on var. *wallichii*, is a species from Peninsular Malaysia (Burt, 1978); and *C. polyneura*, based on var. *polyneura*, is a species from Sulawesi (Burt, 1990b). These two species are not closely related (see phylogeny in Atkins *et al.*, 2020). For the type variety, Clarke listed collections from both Maluku and

Sumatra. The Sumatran specimens are now considered *Cyrtandra pandurata* (Wang *et al.*, 2022). For the fourth variety, var. *puncticulata*, Clarke listed collections from both the island of Borneo and Papua. Burtt described two species, *Cyrtandra bracheia* and *C. erectipila*, from the island of Borneo, to which he assigned some of the original material listed by Clarke under var. *puncticulata* but did not lectotypify the name (Burtt, 1970). Here, we lectotypify the specimen cited by Clarke from Papua because it is distinct from the Bornean collections and closer to the original location of the type of *Cyrtandra decurrens*, thus giving that species a much narrower distribution. Further study of the specimens from Ambon and Papua will be required to determine if this variety also needs to be raised to species level.

Cyrtandra dolichocarpa Kraenzl., Mitt. Inst. Allg. Bot. Hamburg 7: 102 (1927). – Type: INDONESIA. West Borneo [West Kalimantan], Auf dem Bukit Obat, um 90 m, 31 i 1925, Hans Winkler 1400 (holotype HBG [HBG-517547]). = *Agalmyla diandra* Hilliard & B.L.Burtt.

Notes. This name is now considered a synonym of *Agalmyla diandra* Hilliard & B.L.Burtt (Hilliard & Burtt, 2002).

Cyrtandra gracilentia Kraenzl., J. Linn. Soc., Bot. 37: 278 (1906). – Type: INDONESIA. Sumatra, near Dator [? Dalor], 1897, Curtis 455 (holotype K [K000831566]).

Notes. Kraenzlin (1906) incorrectly assigned this species to the island of Borneo, but in fact the type specimen is from Sumatra (Burtt, 1970; 1978; Wang *et al.*, 2022). This species is a synonym of *Cyrtandra navicellata* Zipp. ex C.B.Clarke (Wang *et al.*, 2022).

Cyrtandra* sp. nov. in the affinity of *C. ramunculosa, Edinburgh J. Bot. 61: 141 (2005). – Exemplar specimens: INDONESIA. East Kalimantan, NW of Tabang, along Sungai Belayan [Belajan], around Jelini, 100–150 m, 8 i 1979, Murata *et al.* 1230 (BO, L); East Kalimantan, Berouw, top of Mt Ilas Mapulu, 800 m, 23 ix 1957, Kostermans 14051 (BO, L).

Notes. A brief description and notes on this species were given in Hilliard & Burtt (2005a), along with a statement that as there are no flowers, they judge the material inadequate for use in describing the species.

Cyrtandra verrucosissima Kraenzl., Philipp. J. Sci., C 8: 173 (1913); Burtt, Notes Roy. Bot. Gard. Edinburgh 36: 178 (1978). – Type: MALAYSIA. Sarawak, native collector 887 (n.v.)

Notes. Burtt (1978) excluded this taxon from *Cyrtandra* and suggested that this is probably *Didymocarpus crinitus* Jack (now *Codonoboena crinita* (Jack) C.L.Lim). This is congruent with Vitek *et al.* (2000) and the Gesneriaceae Resource Centre (GRC, 2022).

Unpublished and herbarium names

A number of specimens in E carry unpublished names, presumably being worked on by B. L. Burtt and O. M. Hilliard, but to avoid adding them to the literature, they are not reproduced here.

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