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A suprageneric classification of Oxalidales

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Abstract: Rapid advances in phylogenomics using target capture methods and universal probe sets such as Angiosperms353 have enabled mass sequencing of herbarium specimens, resulting in the resolution of well-supported phylogenetic trees with thorough taxon sampling. However, the nomenclatural implementation of many now well-supported relations is lagging. Based on the results of recent phylogenomic studies we here propose a suprageneric classification of the order Oxalidales, including Brunelliaceae, Cephalotaceae, Connaraceae, Cunoniaceae, Elaeocarpaceae, Oxalidaceae, but excluding Huaceae. One new suborder, five new subfamilies, and three new tribes are proposed. Newly recognized taxa are provided with diagnostic descriptions.

Keywords: Angiosperm353, Angiosperm Phylogeny Group, APG, higher-level classification, systematics, taxonomy, Oxalidales

Introduction

Angiosperms are the largest and most diverse group of living plants (between 295,000 and 369,000 species; Christenhusz & Byng 2016; Nic Lughadha *et al.* 2016; Govaerts *et al.* 2021). The classification of flowering plants, long a subject of much debate and contrasting views, has in the last 20 years approached a near-universal consensus on the circumscription and relationships of the major clades, thanks to the work of the Angiosperm Phylogeny Group (APG) and others. Through successive refinements of APG classifications (APG 1998, 2003, 2009, 2016), based largely on a qualitative interpretation of a multitude of molecular phylogenetic studies, the circumscriptions of angiosperm families and orders are now highly stable. Generic limits are much less settled, however, and major generic recircumscriptions associated with progress in molecular systematics are still commonplace (e.g. 10–20% of names in Poaceae are subject to change; Vorontsova & Simon 2012). Although circumscriptions of genera may be in a state of flux, for many families the phylogenetic relationships of suprageneric groups are well resolved. However, concomitant changes to suprageneric names (e.g. subfamilies, tribes) often lag far behind generic changes, limiting the translation of phylogenetic knowledge into useful classifications. An obvious exception are Orchidaceae (Chase *et al.* 2015) in which a subfamilial, tribal and subtribal classification were proposed, confirmed by recent phylogenomic analysis (Pérez-Escobar *et al.* 2024).

Recent advances in plant phylogenomics, such as the development of high throughput sequencing methods and universal probe sets (e.g. Angiosperms353; Johnson *et al.* 2019), have enabled mass sequencing of herbarium specimens, which have produced well-supported phylogenetic trees with thorough sampling. This has allowed stabilization of generic concepts and in a few cases, in new infrafamilial classifications at subfamilial and tribal levels, e.g. Commelinaceae (Zuntini *et al.* 2021), Cyperaceae (Larridon *et al.* 2021) and Sapindaceae (Buerki *et al.* 2021). However, such studies are more exceptions rather than rules. The large amounts of new phylogenomic evidence on suprageneric relationships (e.g. Zuntini *et al.* 2024) have generally had limited application to suprageneric classification.

Oxalidales exemplifies this development. The circumscription of this rosid order of six families (i.e., Oxalidaceae, Connaraceae, Cephalotaceae, Brunelliaceae, Elaeocarpaceae, Cunoniaceae) and c. 2100 species (WFO 2023) has long been stable (Matthews & Endress 2002), except for Huaceae, which was recently shown not to be related (Zuntini *et al.* 2024). The position of Oxalidales has been questioned (Sun *et al.* 2015). It was thought to be most closely affiliated with Malpighiales and Celastrales (APG 2016), but phylogenomic evidence suggests a closer affiliation with Malvales, Brassicales and Sapindales (Liu *et al.* 2023; Zuntini *et al.* 2024). Apart from the inclusion or not of Huaceae, the circumscription of Oxalidales has been accepted for two decades, but infraordinal classification has not been revised recently. A series of recent phylogenomic studies, however, produced an almost fully resolved genus-level phylogenetic tree of Cunoniaceae and related families (Brunelliaceae,

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Cephalotaceae, Elaeocarpaceae), which was used to revise generic concepts (Pillon *et al.* 2021). Similarly, a nearly fully sampled generic analysis of Connaraceae was used to revise their infrafamilial classification (de Vos *et al.* 2024) and generic delineation of one tribe (Streiff 2022). Based on these results, it is now possible to propose a stable suprageneric classification of Oxalidales (Fig. 1). Here, we review all suprageneric names derived from generic names in Oxalidales listed in Reveal (2010, 2012), and propose one new suborder, five new subfamilies and three new tribes, including diagnostic descriptions where relevant and a list of included genera. New names of subfamilies and tribes were registered in the International Plant Names Index (IPNI) ahead of publication following the simple procedure recommended by Govaerts *et al.* (2022). Huaceae are here excluded from Oxalidales as recent phylogenomic analyses (Zuntini *et al.* 2024) have placed it outside Oxalidales, as sister to Celastrales + Malpighiales.

Nomenclature

ORDER OXALIDALES Bercht. & J.Presl

Přir. Rostlin 221 (1820). — **Type:** *Oxalis* L.

Elaeocarpales Juss. ex Bercht. & J.Presl, *Přir. Rostlin* 223 (1820). — **Type:** *Elaeocarpus* L.

Connarales Link, *Handbuch* 2: 129 (1829). — **Type:** *Connarus* L.

Bauerales Mart., *Consp. Regn. Veg.* 48 (1835). — **Type:** *Bauera* Banks ex Andrews.

Cephalotales Mart., *Consp. Regn. Veg.* 37 (1835). — **Type:** *Cephalotus* Labill.

Cunoniales Mart., *Consp. Regn. Veg.* 48 (1835). — **Type:** *Cunonia* L.

Tremandrales Mart., *Consp. Regn. Veg.* 43 (1835). — **Type:** *Tremandra* R.Br. ex DC.

1. Suborder Oxalidineae Pillon, Crayn, Streiff & J.M.de Vos, ***subordo nov.***

Typus: *Oxalis* L.

Suborder Connarineae J.Presl in *Nowočeská Bibl.* [*Wšobecný Rostl.*] 7: 280 (1846). — **Typus:** *Connarus* L.

Plant habit sympodial; benzoquinone rapanone present, ellagic acid absent; roots diarch (lateral roots 4-ranked); vessel elements with simple perforations, wood rays largely uniseriate; sieve tube plastids with protein crystalloids; calcium oxalate druses absent; petiole bundle(s) annular (with medullary bundles), cuticle wax platelets as rosettes. *Leaves* simple, unifoliolate, trifoliolate or imparipinnate, leaflets articulated, pulvinate, margins entire, secondary veins pinnate to palmate, stipules absent. *Flowers* usually di- or tristylous, more rarely semihomostylous, homomorphic, androdioecious or dioecious; pedicels articulated; corolla postgenitally sub-basally united but free at the insertion zone, with uniseriate glandular hairs; small androgynophore sometimes present (Oxalidaceae, Connaraceae: *Manotes*); stamens obdiplostemonous, usually 10, the whorls of different lengths, congenitally united basally, or more rarely 5, with antepetalous stamens staminodial, with uniseriate glandular hairs; pollen colpate or colporate; carpel mostly 1 or 5, opposite petal (stigma with rounded multicellular ornamentations); ovules hemianatropous to almost orthotropous, with endothelium, the inner and outer integuments of about the same thickness. *Fruit* a loculicidal capsule, follicle, nut, drupe or berry, with persistent calyx; seeds often with ± fleshy exotestal or arilloid.

Note. Although the name Connarineae was available for this clade of two families, the name Oxalidineae needs to be created because the name of a suborder that includes the type of an order must be formed from the same generic name (Art. 16.2; Turland *et al.* 2018). The diagnosis above is largely based on information compiled by Stevens (2024), Matthews & Endress (2002) and Cocucci (2004).

1.1. Connaraceae R.Br.

Observ. Congo 14 (1818), *nom. cons.* — **Type:** *Connarus* L.

Cnestidaceae Raf., *Med. Fl.* 2: 113 (1830). — **Type:** *Cnestis* Juss.

1.1.1. Subfamily Manotoideae J.M.de Vos & Streiff

in J.M.de Vos, Streiff, Bachelier, Epitawalage, O.Maurin, F.Forest & W.J.Baker, *Pl. Syst. Evol.* 310(4)-29: 15 (2024). — **Type:** *Manotes* Planch.

Tribe Manoteae Lemmens, *Agric. Univ. Wageningen Pap.* 89(6): 116 (1989). — **Type:** *Manotes* Planch.

- *Manotes* Sol. ex Planch.

1.1.2. Subfamily Connaroideae Gilg

in Engl. & Prantl, *Nat. Pflanzenfam. Nachtr.-II bis IV Teil* 1: 190 (1897). — **Type:** *Connarus* L.

Subfam. Cnestioideae Raf., *Anal. Nat.* 174 (1815). — **Type:** *Cnestis* Juss.

Subfam. Thysanoideae Raf., *Anal. Nat.* 174 (1815). — **Type:** *Thysanus* Lour. [= *Cnestis* Juss.].

Subfam. Jollydoroideae Gilg in Engl. & Prantl, *Nat. Pflanzenfam. Nachtr.* 189 (1897). — **Type:** *Jollydora* Pierre ex Gilg.

Note. Although the names Cnestioideae Raf. (1815) and Thysanoideae Raf (1815) predate Connaroideae Gilg (1897), the latter is correct because the "name of any subdivision of a family that includes the type of the adopted, legitimate name of the family to which it is assigned is to be formed from the generic name

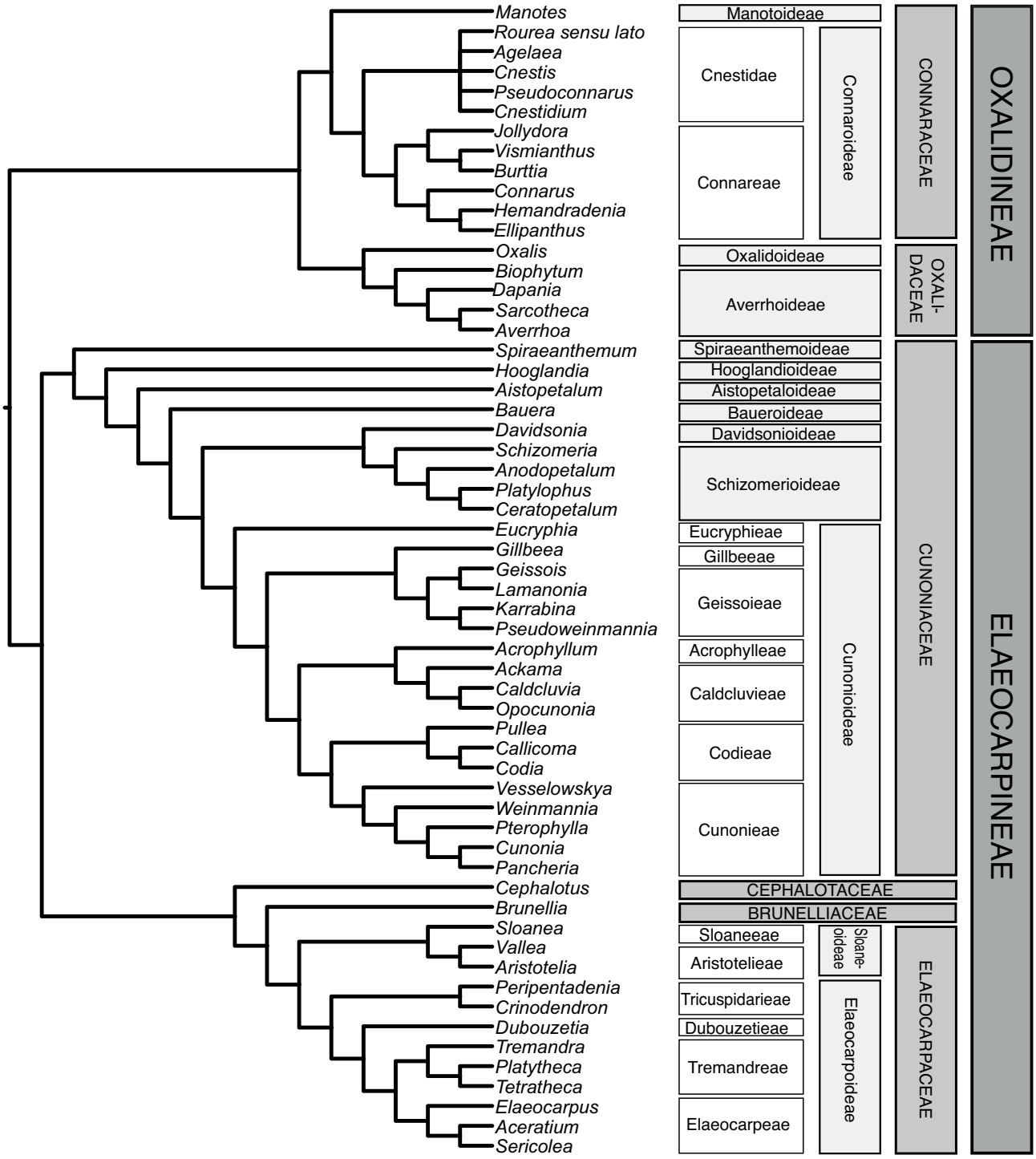

Fig. 1. Phylogenetic relationships and classification of Oxalidales. The tree topology is based on Pillon *et al.* (2021), Zuntini *et al.* (2024) and de Vos *et al.* (2024).

equivalent to that type" (Art. 19.24; Turland *et al.* 2018).

1.1.2.1. Tribe **Connareae** DC.

Prodr. 2: 84 (1825). — **Type:** *Connarus* L.

Tribe Tricholobeae Nakai, *Chosakuronbun Mokuroku* [*Ord. Fam. Trib. Gen. Sect. Nov.*] 250 (1943). — **Type:** *Tricholobus* Blume [= *Connarus* L.].

Tribe Jollydoreae Lemmens, *Agric. Univ. Wageningen Pap.* 89: 116 (1989). — **Type:** *Jollydora* Pierre ex Gilg.

- *Burttia* Baker f. & Exell
- *Connarus* L.
- *Ellipanthus* Hook.f.
- *Hemandradenia* Stapf
- *Jollydora* Pierre ex Gilg.
- *Vismianthus* Mildbr.

1.1.2.2. Tribe **Cnestideae** Planch.

Linnaea 23: 438 (1850). — **Type:** *Cnestis* Juss.

- *Agelaea* Sol. ex Planch.
- *Cnestidium* Planch.
- *Cnestis* Juss.
- *Pseudoconnarus* Radlk.
- *Rourea* Aubl. *sens. lat.* (polyphyletic, incl. *Byrsocarpus* Schumach., *Rourea* Aubl. *sens. str.*, *Roureopsis* Planch., *Santaloides* G.Schellenb. and *Santaloidella* G.Schellenb.)

1.2. **Oxalidaceae** R.Br.

Observ. Congo 14 (1818), *nom. cons.* — **Type:** *Oxalis* L.

Averrhoaceae Hutch., *Fam. Fl. Pl.*, ed. 2: 356 (1959). — **Type:** *Averrhoa* L.

1.2.1. Subfamily **Oxalidoideae** Arn.

Encycl. Brit., ed. 7, 5: 104 (1832). — **Type:** *Oxalis* L.

Tribe Oxalideae Rchb., *Fl. Germ. Excurs.* 2(2): 781 (1832). — **Type:** *Oxalis* L.

Tribe Xanthoxalideae Small, *Man. S.E. Fl.* 746 (1933). — **Type:** *Xanthoxalis* Small. [= *Oxalis* L.].

- *Oxalis* L.

1.2.2. Subfamily **Averrhoideae** Pillon, ***subfam. nov.***

Typus: *Averrhoa* L.

LSID: http://www.ipni.org/urn:lsid:ipni.org:names: 77346601-1

Validated by a full and direct reference to the description associated with **Averrhoaceae** Hutch., *Fam. Fl. Pl.*, ed. 2, 356 (1959).

- *Averrhoa* L.
- *Biophytum* DC.
- *Dapania* Korth.
- *Sarcotheca* Blume

2. Suborder **Elaeocarpineae** Engl.

Syllabus, ed. 2, 148 (1898). — **Type:** *Elaeocarpus* L.

2.1. **Cunoniaceae** R.Br.

in Flinders, *Voy. Terra Austral.* 2: 548 (1814), *nom. cons.* — **Type:** *Cunonia* L.

Baueraceae Lindl., *Intr. Nat. Syst. Bot.* 50 (1830). — **Type:** *Bauera* Banks ex Andrews.

Eucryphiaceae Gay, *Bot. Zeitung (Berlin)* 6: 130 (1848), *nom. cons.* — **Type:** *Eucryphia* Cav.

Davidsoniaceae Bange, *Blumea* 7: 294 (1952). — **Type:** *Davidsonia* F.Muell.

Belangeraceae J.Agardh, *Theoria Syst. Pl.* 337 (1858). — **Type:** *Belangera* Cambess. [= *Lamanonia* Vell.]

Callicomaceae J.Agardh, *Theoria Syst. Pl.* 146 (1858). — **Type:** *Callicoma* Andrews.

Spiraeanthemaceae Doweld, *Tent. Syst. Pl. Vasc.* xxxi (2001). — **Type:** *Spiraeanthemum* A. Gray.

2.1.1. Subfamily **Spiraeanthemoideae** Reveal

Phytoneuron 2012-37: 219 (2012). — **Type:** *Spiraeanthemum* A.Gray.

Tribe Spiraeanthemeae Engl., *Nat. Pflanzenfam.*, ed. 2, 18a: 237 (1930). — **Type:** *Spiraeanthemum* A.Gray.

- *Spiraeanthemum* A.Gray

2.1.2. Subfamily **Hooglandioideae** Pillon, ***subfam. nov.***

Typus: *Hooglandia* McPherson & Lowry.

LSID: http://www.ipni.org/urn:lsid:ipni.org:names: 77346602-1

Trees. *Leaves* imparipinnate; stipules interpetiolar. *Inflorescence* axillary; paniculate; floral maturation subsynchronous with terminal flowers opening first. *Flowers* unisexual, dioecious; perianth of one whorl, 4-merous, imbricate; nectary adnate to the ovary; gynoecium bilaterally symmetrical, with a single locule and a single bent style. *Fruit* drupaceous, flattened and elongate, with a thin fleshy exocarp, hard endocarp, and a single seed (diagnosis adapted from Bradford *et al.* 2004).

- *Hooglandia* McPherson & Lowry

2.1.3. Subfamily **Aistopetaloideae** Pillon, ***subfam. nov.***

Typus: *Aistopetalum* Schltr.

LSID: http://www.ipni.org/urn:lsid:ipni.org:names: 77346603-1

Trees. *Leaves* imparipinnate. *Inflorescence* axillary; paniculiform, large, with decussate branching throughout; floral maturation centrifugal; perianth of one 4–6 merous whorl; floral disc large, adnate to the ovary; gynoecium of 4–6 carpels. *Fruit* drupaceous, one seed per carpel (diagnosis adapted from Bradford *et al.* 2004).

- *Aistopetalum* Schltr.

2.1.4. Subfamily **Baueroideae** Burnett

Outlines Bot. 734, 1132 (1835). — **Type:** *Bauera* Banks ex Andrews.

Tribe Bauereae DC., *Prodr.* 4: 13 (1830). — **Type:** *Bauera* Banks ex Andrews.

- *Bauera* Banks ex Andrews

2.1.5. Subfamily **Davidsonioideae** Thorne & Reveal

Bot. Rev. 73(2): 106 (2007). — **Type:** *Davidsonia* F.Muell.

- *Davidsonia* F.Muell.

2.1.6. Subfamily Schizomerioideae Pillon, ***subfam. nov.***

Typus: *Schizomeria* D.Don

LSID: http://www.ipni.org/urn:lsid:ipni.org:names:77346604-1

Validated by a full and direct reference to the description associated with tribe **Schizomerieae** J.Bradford & R.W.Barnes, *Syst. Bot.* 26: 373 (2001).

Tribe Schizomerieae J.Bradford & R.W.Barnes, *Syst. Bot.* 26(2): 373 (2001). — **Type:** *Schizomeria* D.Don.

- *Anodopetalum* A.Cunn. ex Endl.
- *Ceratopetalum* Sm.
- *Platylophus* D.Don
- *Schizomeria* D.Don

2.1.7. Subfamily Cunonioideae Beilschm.

Flora 16 (1, *Beibl.* 7): 94, 106 (1833). — **Type:** *Cunonia* L.

Subfam. Eucryphioideae Burnett, *Outlines Bot.* 797 (1835). — **Type:** *Eucryphia* Cav.

2.1.7.1. Tribe Eucryphieae Cambess. ex G.Don

Gen. Hist. 1: 599, 613 (1831). — **Type:** *Eucryphia* Cav.

Tribe Carpodonteae Dumort., *Anal. Fam. Pl.* 47 (1829). — **Type:** *Carpodontos* Labill. [= *Eucryphia* Cav.].

- *Eucryphia* Cav.

Note. Although the name Carpodonteae was published before Eucryphieae, the tribe includes *Eucryphia*, the type of Eucryphiaceae, a conserved family name listed in App. IIB of the *International Code of Nomenclature for algae, fungi, and plants*; as such the tribal name should be formed from the generic name *Eucryphia* (Art. 19.5; Turland *et al.* 2018).

2.1.7.2. Tribe Gillbeeae Pillon, ***trib. nov.***

Typus: *Gillbeea* F.Muell.

LSID: http://www.ipni.org/urn:lsid:ipni.org:names:77346605-1

Trees. *Leaves* imparipinnate; stipules in lateral pairs, stellate hairs restricted to inflorescence axes and flowers. *Inflorescence* axillary and terminal; paniculiform; floral maturation basipetalous; petal bifid with apical glands; nectary annular, large; gynoecium of three fused carpels. *Fruit* indehiscent, dry, with carpel walls expanding to form lateral wing (diagnosis adapted from Bradford *et al.* 2004).

- *Gillbeea* F.Muell.

2.1.7.3. Tribe Geissoieae Endl. ex Meisn.

Pl. Vasc. Gen. 1 (*Tab. Diagn.*): 138; 2 (*Comm.*): 101 (1838). — **Type:** *Geissois* Labill.

Tribe Belangereae Pfeiff., *Nomencl. Bot.* 1(1): 385 (1872). — **Type:** *Belangera* Cambess. [= *Lamanonia* Vell.].

- *Geissois* Labill.
- *Karrabina* Rozefelds & H.C.Hopkins
- *Lamanonia* Vell.
- *Pseudoweinmannia* Engl.

2.1.7.4. Tribe Acrophylleae Pillon, ***trib. nov.***

Typus: *Acrophyllum* Benth.

LSID: http://www.ipni.org/urn:lsid:ipni.org:names:77346606-1

Long-stemmed shrub. *Leaves* in whorls of 3, unifoliolate, margin deeply serrate, indumentum on lower surface white, peltate. *Inflorescence* at several successive nodes along the main stem, producing small, axillary panicles; floral maturation synchronous; perianth 5-merous; nectary small, annular at base of ovary, or absent. *Fruit* capsular; seeds tiny, ellipsoid, unwinged, with a granular surface (diagnosis adapted from Bradford *et al.* 2004).

- *Acrophyllum* Benth.

2.1.7.5. Tribe Caldcluvieae J.C.Bradford & R.W.Barnes

Syst. Bot. 26(2): 372. (2001). — **Type:** *Caldcluvia* D.Don.

- *Ackama* A.Cunn.
- *Caldcluvia* D.Don
- *Opocunonia* Schltr.

2.1.7.6. Tribe Codieae G.Don

Gen. Hist. 3: 197, 202 (1834). — **Type:** *Codia* J.R.Forst. & G.Forst.

Tribe Pulleeae Engl. in Engl. & Prantl, *Nat. Pflanzenfam.*, ed. 2, 18a: 236, 260 (1930). — **Type:** *Pullea* Schltr.

- *Callicoma* Andrews
- *Codia* J.R.Forst. & G.Forst.
- *Pullea* Schltr.

2.1.7.7. Tribe Cunonieae Schrank & Mart.

Hort. Reg. Monac. 125 (1829). — **Type:** *Cunonia* L.

Tribe Pancherieae Engl. in Engl. & Prantl, *Nat. Pflanzenfam.*, ed. 2, 18a: 236, 258 (1930). — **Type:** *Pancheria* Brongn. & Gris.

- *Cunonia* L.
- *Pancheria* Brongn. & Gris
- *Pterophylla* D.Don
- *Vesselowskya* Pamp.
- *Weinmannia* L.

2.2. Elaeocarpaceae Juss.

in DC., *Essai Propr. Méd. Pl.*, ed. 2: 87 (1816), *nom. cons.* — **Type:** *Elaeocarpus* L.

Tetrathecaceae R.Br. in Flinders, *Voy. Terra Austral.* 2: 544 (1814). — **Type:** *Tetratheca* Sm.

Tremandraceae R.Br. ex DC., *Prodr.* 1: 343 (1824), *nom. cons.* — **Type:** *Tremandra* R.Br. ex DC.

Aristoteliaceae Dumort., *Anal. Fam. Pl.* 37, 41 (1829). — **Type:** *Aristotelia* L'Hér.

2.2.1. Subfamily Sloaneoideae Pillon & Crayn, *subfam. nov.*

Typus: *Sloanea* L.

LSID: http://www.ipni.org/urn:lsid:ipni.org:names:77346607-1

Shrubs or trees. *Leaves* alternate or opposite (rarely in whorls of 3), venation pinnate to basally ternate; juvenile leaves sometimes pinnately lobed to pinnatisect; stipules linear to foliaceous or reduced. *Flowers:* Petals imbricate at the tip or fused, lobed to toothed, or absent; disk usually entire, rarely minutely lobed; stamens 4–300, anthers dehiscing by 2 apical pores or apical slits sometimes extending to base; ovary 2–5 locular, ovules 2–30/locule; styles fused or apically free (sometimes to base). *Fruit* a berry or loculicidal capsule (with persistent valves, often spiny), seeds 1–many per fruit often with an appendage or sarcotesta.

2.2.1.1. Tribe Sloaneeae Endl.

Gen. Pl. 1005 (1840). — **Type:** *Sloanea* L.

Subtribe Sloaneinae Benth., *J. Proc. Linn. Soc., Bot.* 5 (*Suppl.* 2): 56 (1861). — **Type:** *Sloanea* L.

- *Sloanea* L.

2.2.1.2. Tribe Aristotelieae K.Schum.

in Engl. & Prantl, *Nat. Pflanzenfam.* 3, Abt. 6: 7 (1890). — **Type:** *Aristotelia* L'Hér.

- *Aristotelia* L'Hér.
- *Vallea* Mutis ex L.f.

2.2.2. Subfamily Elaeocarpoideae Arn.

Encycl. Brit., ed. 7, 5: 100 (1832). — **Type:** *Elaeocarpus* L.

2.2.2.1. Tribe Tricuspidarieae Endl.

Gen. Pl. 1012 (1840). — **Type:** *Tricuspidaria* Ruiz & Pav. [= *Crinodendron* Molina].

- *Crinodendron* Molina
- *Peripentadenia* L.S.Sm.

2.2.2.2. Tribe Dubouzetieae Pillon & Crayn, *trib. nov.*

Typus: *Dubouzetia* Pancher ex Brongn. & Gris.

LSID: http://www.ipni.org/urn:lsid:ipni.org:names:77346609-1

Shrubs to trees. *Leaves* alternate, venation pinnate, without domatia; stipules, when present, minute, caducous. *Inflorescence* axillary, few-flowered, short-racemose to fasciculate. *Flowers* mostly 5-merous, pendent, petals rounded, ± entire to minutely serrulate, 2-pocketed at base; disk pulviniform to slightly 5-lobed; stamens 15–45, inserted on disk surface and/or ovary base; filaments longer than anthers; ovary 3–5 locular; ovules 4–12/locule. *Fruit* valves not detaching; seeds few to several, 1–3 per locule, glabrous or with fine spreading hairs, seed coat hard, generally with an apical spiral waxy strophiole (diagnosis based on Coode 1987, 2004).

- *Dubouzetia* Pancher ex Brongn. & Gris

2.2.2.3. Tribe Tremandreae Rchb.

Fl. Germ. Excurs. 2(2): 828 (1832). — **Type:** *Tremandra* R.Br. ex DC.

- *Platytheca* Steetz
- *Tremandra* R.Br. ex DC.
- *Tetratheca* Sm.

2.2.2.4. Tribe Elaeocarpeae Bartl.

Ord. Nat. Pl. 340 (1830). — **Type:** *Elaeocarpus* L.

- *Aceratium* DC.
- *Elaeocarpus* L.
- *Sericolea* Schltr.

2.3. Brunelliaceae Engl.

Nat. Pflanzenfam. Nachtr. 182 (1897), *nom. cons.* — **Type:** *Brunellia* Ruiz & Pav.

Subtribe Brunelliinae Briq. in Engl. & Prantl, *Nat. Pflanzenfam.* IV, 3a: 207 (1895). — **Type:** *Brunellia* Ruiz & Pav.

- *Brunellia* Ruiz & Pav.

2.4. Cephalotaceae Dumort.

Anal. Fam. Pl. 59, 61 (1829), *nom. cons.* — **Type:** *Cephalotus* Labill., *nom. cons.*

Subfamily Cephalotoideae Burnett, *Outlines Bot.* 736, 1092, 1132 (1835), as "Cephalotidae". — **Type:** *Cephalotus* Labill.

Tribe Cephaloteae Horan., *Char. Ess. Fam.* 141 (1847). — **Type:** *Cephalotus* Labill.

Subtribe Cephalotinae Meisn., *Pl. Vasc. Gen.*: 1 (*Tab. Diagn.*): 105 ; 2 (*Comm.*): 74 (1838), as "Cephaloteae". — **Type:** *Cephalotus* Labill.

- *Cephalotus* Labill.

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