



4 MONIMIACEAE ¹

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Evergreen trees or shrubs or occasionally woody lianas, monoecious or dioecious. Leaves opposite or rarely whorled (not in Australia), exstipulate, simple; lamina with small translucent oil glands, pinnately veined with conspicuous, midrib margins entire or toothed. Inflorescences terminal or axillary, occasionally ramiflorous, in racemes or panicles, or flowers solitary; bracts and bracteoles present or absent. Flowers pedicellate, actinomorphic or sometimes slightly irregular, unisexual; receptacle well developed. Perianth of 1 or more whorls; tepals 8-many, either differentiated into sepals and petals or not or scarcely differentiated, in pairs around an ostiole or irregularly arranged. Male flowers: stamens few to many, regularly arranged in 1–5 (or more) pairs or numerous (to c. 60) and more irregularly arranged; staminal filaments short or absent; anthers basifixed, dehiscing by horizontal or vertical slits; the anther connective sometimes not or sometimes distinctly prolonged and enlarged into an apical appendage. Female flowers often opening after anthesis by upper part falling as calyptra; carpels 4–50(–100+), superior, free; ovary unilocular with a solitary ovule, placentation basal or apical; style single, terminal, unbranched, or absent; stigma \pm sessile. Fruits of separate or less commonly clustered drupes, indehiscent, exposed on an expanded receptacle or surrounded by an hypanthium; drupes \pm smooth. Seeds with fleshy endosperm.

A family of about 27 genera and 440 species, mainly in tropical and subtropical regions of the Southern Hemisphere. 8 genera (3 endemic) and 26 species (21 endemic) in Australia. Monimiaceae are placed in the Laurales and is related to Lauraceae (widespread) and Hernandiaceae (pantropical) (see Renner et al. 2000). Atherospermataceae has in the past been included as a subfamily in Monimiaceae but is retained as distinct here.

Key reference: Whiffin & Foreman (2007).

External resources: accepted names with synonymy & distribution in Australia (APC); author & publication abbreviations (IPNI); mapping (AVH, NVA); nomenclature (APNI, IPNI).

1 HEDYCARYA

Hedycarya J.R.Forst. & G.Forst., *Char. Gen. Pl.*, ed. 2: 127, t. 64 (1776).

Dioecious shrubs or trees. Leaves opposite, entire or toothed, petiolate. Inflorescence terminal or axillary, a panicle with 3–20 flowers, or flowers solitary. Male flowers depressed-cupuliform; tepals usually 8, triangular; stamens usually numerous, on floor and lower walls of receptacle; filaments very short or absent; connective sometimes prolonged and expanded into an appendage; anthers dehiscing outwardly. Female flowers depressed-cupuliform; tepals 6–12, distinct or not; staminodes present or absent; carpels usually numerous; ovary glabrous or pubescent; stigma short and thick. Fruiting receptacle cupuliform to convex, scarcely enlarged. Fruit formed of a loose to tight cluster of small or large drupes.

A genus of about 11 species of the South-West Pacific, particularly New Caledonia. 2 species endemic to eastern Australia: *H. angustifolia*, which is found from south-eastern Queensland to Tasmania, and *H. loxocarya* (Benth.) W.D.Francis, which is confined to north-eastern Queensland.

1 This work can be cited as: Duretto MF (2009). Monimiaceae, **version 2019:1**. In MF de Salas (Ed.) *Flora of Tasmania Online*. 3 pp. (Tasmanian Herbarium, Tasmanian Museum and Art Gallery: Hobart). <http://flora.tmag.tas.gov.au/treatments/monimiaceae/>

2 Tasmanian Herbarium, Tasmanian Museum & Art Gallery, PO Box 5058, UTAS LPO, Sandy Bay, TAS 7005, Australia.

1 Hedycarya angustifolia A.Cunn., *Ann. Nat. Hist.* 1: 215 (1838)

Native Mulberry, Australian Mulberry, Austral Mulberry

Hedycarya australasica var. *angustifolia* (A.Cunn.) A.DC., *Prodr.* (DC.) 16(2): 673 (1868); *H. cunninghamii* Tul., *Arch. Mus. Hist. Nat.* 8: 408 (1855) [as *H. Cunninghamii*], *nom. illeg.* *Hedycarya dentata* var. *australasica* Sond., *Linnaea* 28: 228 (1856); *H. pseudomorus* F.Muell., *Trans. Philos. Inst. Victoria* 2: 63 (1858); *H. australasica* (Sond.) A.DC., *Prodr.* (DC.) 16(2): 673 (1868), *nom. illeg.*

Illustrations: Curtis, *The Student's Flora of Tasmania* 3: 595, fig. 126 (1963); Stanley & Ross, *Flora of South-Eastern Queensland* 1: 153, fig. 20, a1-3 (1983); Foreman, *Flora of Victoria* 3: 29, fig. 2a-c (1996); Harden, *Fl. New South Wales* 1, rev. edn: 130 (2000); Woolmore et al. (Eds), *King Island Flora* 59 (2002); Wilson (Ed.), *Fl. Australia* 2: 68, fig. 14a-d (2007).

Shrubs or small trees, 2–10(–20) m high, often with a number of stout stems arising at or shortly above ground-level; young shoots and inflorescence axes with short scattered antrorse hairs, adult parts glabrous. Leaves opposite, petiolate, often with more than one axillary bud; petiole 15–40 mm long; lamina ovate-elliptical or lanceolate-elliptical, 4–16.5 cm long, (1.5–)2.5–6.0 cm wide, aromatic when crushed due to numerous and small translucent oil dots, base cuneate to rounded, margin irregularly dentate or serrate with the teeth at first gland-tipped, apex acute or shortly acuminate; adaxial surface dark green, the pinnate and reticulate veins making a coarse yellowish-white network; abaxial surface pale green. Male inflorescence 1.5–2(–3) cm long, branched, 5–16-flowered; pedicels 4–9 mm long, pubescent. Male flowers ± flattened-cupuliform, 3.5–7.0 mm diam.; tepals 8(–10), c. 1.0–1.5 mm long; stamens c. 35–50, filaments very short, connective shortly elongated into a small appendage. Female inflorescence 1.5–2.5 cm long, (1)2–6-flowered; pedicels 3–11 mm long, pubescent. Female flowers ± flattened-cupuliform, c. 3.5–4.5 mm diam.; tepals 8–10, c. 1.0–1.5 mm long; carpels 40–50; ovary columnar, glabrous or shortly pubescent; stigma short, ± conical. Drupes ± globose, maturing yellow to orange, c. 3.5 mm diam., tightly clustered. Flowering Aug.–Nov.; fruiting Oct.–Apr.

Tas. (KIN); also NSW, Vic. In Tasmania, restricted to King Island in damp and sheltered gullies.

REFERENCES

ALA (Atlas of Living Australia) <http://www.ala.org.au/>

APC (Australian Plant Census) <https://biodiversity.org.au/nsl/services/apc>

APNI (Australian Plant Name Index) <https://biodiversity.org.au/nsl/services/apni>

AVH (Australia's Virtual Herbarium) (Council of Heads of Australasian Herbaria) <http://avh.chah.org.au/>

IPNI (International Plant Name Index) <http://www.ipni.org> or <http://www.us.ipni.org>

NVA (Natural Values Atlas) (Department of Primary Industries and Water: Hobart)
<https://www.naturalvaluesatlas.tas.gov.au/>

Renner SS, Foreman D, Murray D (2000) Timing transantarctic disjunctions in the Atherospermataceae (Laurales): Evidence from coding and noncoding chloroplast sequences. *Systematic Biology* **49** 579–591.

Stevens PF (2008) Angiosperm Phylogeny Website. Version 9, June 2008.
<http://www.mobot.org/MOBOT/research/APweb>

Whiffin T, Foreman D (2007) Monimiaceae. *Flora of Australia* **2** 65–91.

NOTE: Web addresses can and do change: a list of current web addresses is maintained in the web version of this treatment on the *Flora of Tasmania Online* website at <https://flora.tmag.tas.gov.au/>

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