



## 4 MONIMIACEAE <sup>1</sup>

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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, dehiscent 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 ± sessile. Fruits of separate or less commonly clustered drupes, indehiscent, exposed on an expanded receptacle or surrounded by an hypanthium; drupes ± 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 dehiscent 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.

<sup>1</sup> This work can be cited as: Duretto (2009) 4 Monimiaceae, version 2009:1. In MF Duretto (Ed.) *Flora of Tasmania Online*. 3 pp. (Tasmanian Herbarium, Tasmanian Museum & Art Gallery: Hobart). ISBN 978-1-921599-02-6 (PDF). [www.tmag.tas.gov.au/floratasmania](http://www.tmag.tas.gov.au/floratasmania)

<sup>2</sup> Tasmanian Herbarium, Tasmanian Museum & Art Gallery, Private Bag 4, Hobart, Tasmania 7001, 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 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 mm diam.; tepals 8(–10), c. 1–1.5 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. 1–1.5 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

APC (Australian Plant Census) <http://www.chah.gov.au/apc/about-APC.html>

APNI (Australian Plant Name Index) <http://www.anbg.gov.au/cgi-bin/apni>

AVH (Australia's Virtual Herbarium) (Council of Heads of Australasian Herbaria) <http://www.anbg.gov.au/avh.html>

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

NVA (Natural Values Atlas) (Department of Primary Industries and Water: Hobart) <http://www.dpiw.tas.gov.au/inter.nsf/WebPages/LJEM-6TV6TV?open>

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.

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

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