



52 TETRACARPAEACEAE ¹

Marco F Duretto ²

Erect bushy, glabrous shrub. Leaves alternate, estipulate, petiolate, simple, small, crenate to serrate, pinnately veined. Inflorescences terminal, erect, bracteate racemes. Flowers small, 4-merous, actinomorphic, bisexual. Sepals imbricate, persistent. Petals free, slightly imbricate. Stamens 4 or 8, in a single whorl, filaments free, filiform; anthers basifixed, latrorse. Carpels 4(5), fusiform, prominently stipulate, erect, free for most of length; stigmas subsessile, small, lobed; ovules bitegmic, crassinucellate, numerous, borne on branched submarginal placentae. Fruit of 4(5) erect follicles, stipitate, coriaceous, many-seeded. Embryo minute, at base of fleshy copious endosperm.

A monospecific family endemic to Tasmania.

Tetracarpaea is taxonomically isolated and has been placed with Cunoniaceae, Saxifragaceae and lately in Escalloniaceae. Molecular evidence indicates it belongs in the Saxifragales and is related to Haloragaceae (subcosmopolitan; see Kubitzki 2007b) and the two small and monogeneric families, Penthoraceae (2 spp., E North America & E to SE Asia; Heywood 2007; Theide 2007) and Aphanopetalaceae (2 spp., Qld, NSW, SW WA; Brummitt 2007a; Kubitzki 2007a), and these sister to Crassulaceae (see Soltis & Soltis 1997; Fishbein et al. 2001; Brummitt 2007b; Kubitzki 2007c; & references cited therein). The expansion of Haloragaceae to include Aphanopetalaceae, Penthoraceae and Tetracarpaeaceae was rejected by Kubitzki (2007b) because it would lead to the "loss of the morphological profile of Haloragaceae" while Brummitt (2007b) indicated that all four families were sufficiently distinctive to be maintained as separate families.

Authorship of both the genus and the species is sometimes attributed to J.D.Hooker (Hook.f.) rather than W.J.Hooker (Hook.), but the index of *Hooker's Icones Plantarum* vol. 3 attributes this name to "Hook." (APC 2008; APNI 2008).

Key references: Brummitt (2007b); Kubitzki (2007c).

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

1 TETRACARPAEA

Tetracarpaea Hook., *Hooker's Icon. Pl.* 3: t. 264 (1840).

Description, distribution and species details as per family.

1 *Tetracarpaea tasmanica* Hook., *Hooker's Icon. Pl.* 3: t. 264 (1840)

Tetracarpaea tasmanica W.M.Curtis, *The Student's Flora of Tasmania* 1: 179 (1956); W.M.Curtis & D.I.Morris, *The Student's Flora of Tasmania* 1, rev. edn: 182 (1975), orth. var.

Illustrations: Stones & Curtis, *The Endemic Flora of Tasmania* 3: t. 55, No. 91 (1971); Curtis & Morris, *The Student's Flora of Tasmania* 1: 181, fig. 43b (1975); Morley & Toelken, *Flowering Plants in Australia* 143, fig. 89a-b (1983); Kirkpatrick, *Alpine Tasmania* 39, fig. 14c (1997); Cameron, *A Guide to Flowers and Plants of*

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

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

Tasmania, 3rd edn, 23, pl. 8 (2000); Kubitzki, *Fam. & Gen. Vasc. Pl.* (Ed. K.Kubitzki) 9: 457 (2007); Simmons et al., *A Guide to Flowers and Plants of Tasmania*, 4th edn, 33 (2008).

Erect, much-branched shrub, to 1 m high. Leaves simple, 9–32 mm long, 4–12 mm wide, shortly petiolate; lamina obovate, shining, apex rounded, base narrowed into petiole, veins pinnate, slightly indented on adaxial surface, margin unequally and bluntly serrate, the teeth gland tipped. Inflorescence a terminal raceme, 2–5 cm long. Flowers small. Sepals 4, 1.0–1.5 mm long, fused at base, spreading. Petals 4, white, erect, 4–6 mm long, spatulate, clawed, deciduous. Carpels 4(5); ovary linear-oblong, narrowed at apex into a slender style with simple stigma. Follicles dehiscent on inner margin. Seed small, numerous, obovoid-subulate, testa loose and almost winged. Flowering Dec.–Mar.; fruiting Jan.–Jun. (Sep.).

Tas. (BEL, TCH, TSE, TSR, TWE), endemic. Found mainly in the wetter western half of the island of Tasmania with isolated occurrences on Bruny Is. (TSE) and on Mt Arthur, Mt Barrow and Blue Tiers in the north-east (BEL). Occurs in rainforest, wet sclerophyll forest and subalpine heaths and shrubberies, often in rocky situations. W.J.Hooker deliberately rendered the epithet as '*tasmannica*' and not '*tasmanica*' and this spelling is retained here (see APC 2008).

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

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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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