Micromyrtus Benth.

ALA (https://bie.ala.org.au/species/https://id.biodiversity.org.au/node/apni/9261261) NSL [legitimate] (https://biodiversity.org.au/nsl/services/apni-format/display/72767)

Options

— Bentham, G. & Hooker, J.D. (19 October 1865), *Genera Plantarum* 1(2): 700

PROFILE () DISTRIBUTION () LITERATURE & LINKS () KEY ()

Top

Nomenclature

Bentham, G. & Hooker, J.D. (19 October 1865), *Genera Plantarum* 1(2): 700 ()

Etymology

From the Greek *micros* (small) and *myrtos* (myrtle), a likely reference to the small leaves and flowers of the six species originally included in the genus.

Description

Almost prostrate to very tall shrubs, with slender branches, single-stemmed or multi-branched at base in most species. Leaves opposite, decussate, concolorous or paler adaxially; apical point absent or to 0.3 mm long. Peduncles often dorsiventrally compressed, 1-flowered. Bracteoles narrowly to broadly ovate, acute. Pedicels absent in most species. Flowers small, actinomorphic or zygomorphic. Hypanthium turbinate to narrowly obconic to strongly dorsiventrally compressed, 4–10-ribbed or 5-angled. Sepals (when present) 5 or 6, extremely short to ± as long as the petals, persistent in fruit. Petals 5 or 6, widely spreading in flower, orbicular to obovate, white to medium pink or yellow, often with obvious glands on abaxial surface; antipetalous colleters absent or minute. Staminodes rare or absent. Stamens inflexed in bud, 5–10 or 12, with 1 opposite each petal and, in many species, also with 1 opposite each sepal, much shorter than the petals, antisepalous ones (when present) often distinctly shorter and inserted lower than antipetalous ones. Filaments free, narrow (terete or slightly flattened) or (in 2 species) flat. Anthers usually longitudinally dehiscent, with slits slightly to greatly divergent at summit, dehiscent by a pore in *M. flava*; connective gland free, large, commonly with 2 obvious but much smaller, lateral oil glands or lobes. Ovary inferior, 1-locular; placenta sessile, located towards top of ovary; ovules 1–10, pendulous. Style central and terminal; stigma minute.

Fruits indehiscent, usually fragile, 1- or 2-seeded, sometimes with persistent spreading sepals, petals, hairs or wings (bracteoles). Seeds often narrowly to very broadly obovoid or dorsiventrally compressed, 0.9–2.5 mm long; testa membranous, brown.

Diagnostic Features

Distinguished by the following combination of characters: stamens inflexed in bud, free, 5–10 or 12, with 1 opposite each petal and, in many species, also with 1 opposite each sepal, the antisepalous stamens (when present) often distinctly shorter and inserted lower than the antipetalous stamens; anthers usually longitudinally dehiscent (dehiscent by a pore in *M. flava*), with slits slightly to greatly divergent at summit, the connective gland free; ovary 1-locular, with the ovules pendulous from a placenta located towards the top of the ovary; style terminal (not inset); fruits indehiscent.

Chromosome Numbers

n = 11, based on three species.

Biostatus

Native.

Distribution

A genus of 50 currently recognised species endemic to mainland Australia and widespread in the arid zone, with a high concentration of species in the southwest of Western Australia and a smaller concentration in eastern Queensland and New South Wales, but with very few representatives in the Northern Territory, South Australia and Victoria.

Ecology

Top

The small flowers attract small insects to their usually well-exposed nectar. Wind-dispersal of the small, indehiscent fruits may be enhanced by the elongated or compressed shape of the hypanthium, sometimes combined with widely spreading sepals, petals, hairs or wings; the diaspore tends to be extremely light.

Nomenclature and Typification

Micromyrtus Benth. in G. Bentham & J.D. Hooker, *Genera Plantarum* 1: 700 (1865); *Thryptomene* sect. *Micromyrtus* (Benth.) F.Muell., *Fragmenta Phytographiae Australiae* 8(59): 13 (1873). Type: *Micromyrtus drummondii* Benth., *nom. superfl.* = *Micromyrtus obovata* (Turcz.) J.W.Green; lecto, designated by B.L. Rye, *Nuytsia* 15(1): 102 (2002).

Corynanthera J.W.Green, *Nuytsia* 2(6): 368 (1979). Type: *Corynanthera flava* J.W.Green = *Micromyrtus flava* (J.W.Green) Rye & Peter G.Wilson.

Taxonomic Notes

Following the reduction of the monotypic genus *Corynanthera* to synonymy (Rye & Wilson 2022), *Micromyrtus* is now the sole genus in subtribe Micromyrtinae (Rye *et al.* 2020). There are no formal infrageneric categories within *Micromyrtus* but many informal species groups have been proposed. In Western Australia, most species have only 1 or 2 ovules, 10 stamens in 2 distinct whorls and either 10 hypanthium ribs opposite both the sepals and petals or 5 ribs opposite the sepals. Eastern Australian species mostly have 4–10 ovules, 5 ribs at the base of the hypanthium but a greater number at the summit, and either lack antisepalous stamens or have them in the same whorl as the antipetalous ones. *Micromyrtus* is characterised by its slender branches and sprays of small, delicate flowers and fruits. The inner surface of the hypanthium and the ovary summit tend to have a dark, fleshy, glandular surface at maturity, and the margin often protrudes as very shallow lobes between the insertion points of the stamens.

For a few of the eastern species, very few specimens have been examined for this Flora account and their descriptions therefore rely partially on the details and illustrations provided in Green (1983), Bean (1987) and Hunter *et al.* (1996).

Illustrations

J.W. Green, *Nuytsia* 3(2): 194, figs 67–76, https://www.biodiversitylibrary.org/page/53144085 (https://www.biodiversitylibrary.org/page/53144085); 197, figs 89–101, https://www.biodiversitylibrary.org/page/53144088 (https://www.biodiversitylibrary.org/page/53144088); 202, figs 135–143, https://www.biodiversitylibrary.org/page/53144093 (https://www.biodiversitylibrary.org/page/53144093) (1980); J.P. Jessop & H.R. Toelken, *Flora of South Australia* 2: 947, fig. 483B (1986); B.L. Rye, *Nuytsia* 16(1): 120, fig. 1 (2006), https://www.biodiversitylibrary.org/page/61647874 (https://www.biodiversitylibrary.org/page/61647874).

Excluded or Uncertain Names

Three phrase names are current in Western Australia (Western Australian Herbarium 1998–): *M. racemosa* var. Jingemarra (R.J. Cranfield 5253a), which is known from a single collection, *M. triptycha* subsp. Ironcap (N. Gibson & K. Brown 3082) and *M. triptycha* subsp. Maya (B.L. Rye & M.E. Trudgen 239104). The taxonomic status of all three is unclear.

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Top

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Top

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Taxonomy

- Kingdom: Plantae ☰ ()
- Phylum: Charophyta
- Class: Equisetopsida
- Subclass: Magnoliidae
- Superorder: Rosanae ☰ ()
- Order: Myrtales ☰ ()
- Family: Myrtaceae (/opus/foa/profile/Myrtaceae) ☰ ()
- Genus: Micromyrtus (/opus/foa/profile/Micromyrtus) ☰ ()

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Top

Top

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