

Eucalyptus gillii

Curly mallee, Arkaroola mallee, Silver mallee

Classification

Eucalyptus | Symphyomyrtus | Bisectae | Destitutae | Subulatae | Decussatae

Nomenclature

Eucalyptus gillii Maiden, *Crit. Revis. Eucalyptus* 2 (5) 177 (1912).

T: South Australia: Umberatana, Flinders Range, May 1907, *W. Gill s.n.*; holo: NSW; iso: K, MEL.

Description

Mallee to 6 m tall, rarely a small tree to 8 m. Forming a lignotuber.

Bark smooth throughout or with some rough, flaky or box-type grey or brown bark on lower 2 m of larger stems, the flakes shed imperfectly giving a curly appearance; smooth bark white, cream, pink or grey. Branchlets usually glaucous.

Juvenile growth (coppice or field seedlings to 50 cm): stems square to rounded in cross-section, usually glaucous; juvenile leaves opposite for many pairs, sessile, narrow at first but becoming ovate to cordate to rarely lanceolate, 2–5.7 cm long, 2–5.3 cm wide, bases amplexicaul to rounded, rarely tapering or rarely connate (seen in cultivation), slightly discolorous, grey-blue to glaucous.

Crown often composed of juvenile leaves. Adult leaves, which are petiolate, lanceolate and alternate may only appear in upper crown of larger trees. **Crown leaves** opposite or alternate, petiole 0–0.7 cm long; blade lanceolate to broadly ovate to cordate, 3–8 cm long, 1.2–3.5 cm wide, base amplexicaul to rounded or tapering, rarely connate (seen in cultivation), slightly discolorous or concolorous, dull, green to grey-green or blue-grey to glaucous, side-veins usually greater than 45° to midrib, densely to very densely reticulate, intramarginal vein parallel to and remote from margin, oil glands mostly intersectional.

Inflorescence axillary unbranched, peduncles 0.4–1.5 cm long, buds 7, 9 or 11, pedicellate, pedicels 0.2–0.7 cm long. **Mature buds** more or less pyriform to oblong or ovoid (0.8–1.4 cm long, 0.3–0.5 cm wide), green to yellow under copious wax, scar present, operculum conical to horn-shaped or beaked (0.5–1 cm long), stamens irregularly flexed, anthers cuboid to globoid, weakly versatile to adnate, basifixed, dehiscent by lateral slits or pores, style long, stigma tapered to blunt, locules 3 or 4, the placentae each with 4 vertical ovule rows. Flowers pale yellow.

Fruit pedicellate, pedicels 0.1–0.8 cm long, barrel-shaped or truncate-globose, 0.4–0.9 cm long, 0.5–0.8 cm wide, glaucous, disc descending, valves 3 or 4, near rim level, surmounted by persistent, fragile style remnants.

Seeds grey, 1.2–3 mm long, ovoid or depressed-ovoid, dorsal surface smooth, hilum ventral.

Cultivated seedlings (measured at node 10): cotyledons Y-shaped (bisected); stems square in cross-section, glaucous; leaves opposite, sessile, cordate to ovate, 3–5 cm long, 2–3.5 cm wide, glaucous.

Flowering Time

Flowering has been recorded in April, July, August, September, October and November.

Notes

A mallee or small tree of disjunct distribution, mainly in the Flinders Range in South Australia with a small occurrence in the Barrier Range north of Broken Hill in western New South Wales. The bark may be smooth or loosely rough. The crown is the defining feature of the species, being wholly of glaucous, cordate to ovate, juvenile leaves. The flowers are pale yellow.

Eucalyptus gillii belongs in *Eucalyptus* subgenus *Symphyomyrtus* section *Bisectae* subsection *Destitutae* because buds have two opercula, cotyledons are Y-shaped and branchlets lack oil glands in the pith. Within this subsection *E. gillii* is part of a large taxonomic series *Subulatae* further characterised by globoid basifixed anthers, grey smooth seeds with shallow longitudinal furrows, and fruit with persistent exerted style remnants. Series *Subulatae* is divided principally into four subseries based on the juvenile leaves, one with spiral, crowded seedling phyllotaxis (subseries *Spirales*), another with decussate and decurrent seedling leaves (subseries *Decurrentes*), another



with decussate non-decurrent seedling leaves (subseries *Decussatae*), and a fourth with disjunct, petiolate seedling leaves (subseries *Oleaginae*).

Eucalyptus gillii is part of subseries *Decussatae*.

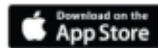
Because of its juvenile crown, *E. gillii* could only be confused with *E. wyolessis*, a rare endemic of the Great Victoria Desert in western South Australia. This species differs in the larger leaves, buds and fruits.

E. gillii is closely related to *E. socialis* and is considered by others as a neotenous variant of that species. *E. socialis* always has a crown of adult, alternate, lanceolate leaves. Where the two co-occur intergrades between them are common.

Origin of Name

Eucalyptus gillii: after Walter Gill (1851–1929). In 1884 Walter Gill joined the South Australian government services as an inspector of Government Lands. Two years later he became Chief Forester at Wirrabara and in 1890 was appointed Conservator of Forests in South Australia, a position he held until 1923. He is credited with the first plantings of *Pinus radiata* in the State of South Australia. During the period Gill was Conservator, he collected extensively whilst examining land potential in the state.

Copyright © CANBR 2020, all rights reserved.



Web edition hosted at <https://apps.lucidcentral.org/euclid>