

Eucalyptus purpurata

Bandalup silver mallet

Classification

Eucalyptus | Symphyomyrtus | Bisectae | Destitutae | Falcatae | Rugatae

Nomenclature

Eucalyptus purpurata Nicolle, *Nuytsia* 15: 81 (2002).



T: Western Australia: near Bandalup Hill, east of Ravensthorpe, 33°40'07"S, 120°24'03"E, 5 Nov. 2000, *D. Nicolle* 3579 & *M. French*; *holo*: PERTH; *iso*: AD, CANB, NSW.

Description

Mallet to 10 m tall. Lignotuber absent.

Bark smooth throughout, mottled silvery grey to light grey over cream bark, shedding in strips.

Branchlets lack oil glands in the pith.

Juvenile growth (coppice or field seedlings to 50 cm): not seen.

Adult leaves alternate, petioles 0.7–1.7 cm long; blade lanceolate, 4.5–9.5 cm long, 0.6–1.6 cm wide, base tapering to petiole, margin entire, apex finely pointed, concolorous, glossy, dark green, side-veins acute, reticulation moderate, intramarginal vein close to margin, oil glands sparse, intersectional. New young leaf growth red-purple.

Inflorescence axillary unbranched, pendulous, peduncles 0.6–1.5 cm long, buds 7, 9 or 11 per umbel, pedicels 0.3–0.7 cm long. **Mature buds** ovoid with shallow ribs on hypanthium only, 1.1–1.5 cm long, 0.4–0.5 cm wide, scar present, operculum narrowly conical, not ribbed, stamens inflexed, anthers cuboid, versatile, dorsifixed, dehiscing by longitudinal slits, style long and straight, stigma blunt to ± tapered, locules 3(4), the placentae each with 4 vertical rows of ovules. Flowers creamy white.

Fruit on down-turned peduncles, pedicellate (pedicels 0.3–0.7 cm long), truncate-globose and somewhat flattened, 0.5–0.6 cm long, 0.6–0.7 cm wide, not ribbed, staminophore persistent and obscuring the vertically descending disc, valves 3(4), exerted and fragile.

Seeds brown to grey-brown, 1–2.5 mm long, ovoid or flattened-ovoid, dorsal surface smooth or very shallowly reticulate and sometimes with longitudinal furrows dorsally, hilum ventral.

Cultivated seedlings (measured at ca node 10): not grown (data from Nicolle, *ibid.*) cotyledons Y-shaped (bisected); leaves opposite, shortly petiolate, linear becoming disjunct, petiolate, elliptical, to 2.8 cm long, to 1 cm wide, blue-green, dull.

Flowering Time

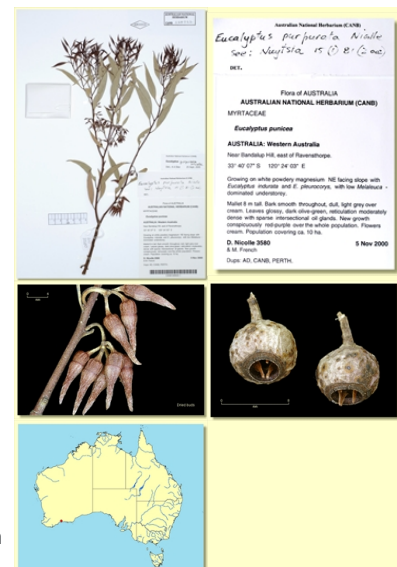
Flowering has been recorded in November.

Notes

A recently described mallet endemic to Western Australia, found only near Bandalup Hill, Ravensthorpe, where it occurs in more or less pure stands on white powdery soil containing magnesite. *Eucalyptus purpurata* has silvery grey and cream smooth bark, glossy green adult leaves and small pendulous ovoid buds with shallow ribbing on the lower part of the bud only, pendulous and smooth truncate-globose fruit 0.5–0.6 cm long, and petiolate juvenile leaves. The new growing tips and buds are reddish purple.

At its only known locality *E. purpurata* is unlikely to be confused with any other species. The only other smooth-barked, green-crowned mallet species in the area is the smooth-barked *E. clivicola*, which also has glossy dark green adult leaves but differs strongly in its elongated fusiform buds and cupular to cylindrical fruit held erect. Another local mallet species is *E. cernua* which has squat buds and fruit born on very broad strap-like peduncles.

Further to the north and north-west other similarly smooth-barked mallet species more closely related to *E. purpurata* occur: *E. argyphaea*, found sporadically from Wickpin to Jerramungup and Lake King, has longer and wider buds with ribbing on base only rarely on the operculum, and larger, ribbed or smooth fruit; *E. ornata*, restricted to the area immediately around Kondinin, has larger buds coarsely, closely and sharply ribbed from base of the hypanthium to near the tip of the operculum and wide fruit with coarse ribs; *E. recta*, which is very restricted to the wheatbelt just east of Cadoux, has larger and completely smooth buds and fruit; and *E. rugulata*, found in the Hatter Hill to South Ironcap area east of Varley, and which has much larger buds, with pronounced but shallow ribbing on the hypanthium, and much larger shallowly ribbed fruit. The newly described mallet *E. annettae* differs profoundly in its glaucous branchlets, larger adult leaves short conical operculum and ribbed buds and fruit, and is found only near Israelite Bay. Another related species, the mallee *Eucalyptus ecostata*, widespread in coastal and subcoastal areas around Ravensthorpe, differs in growth habit and never has new growth tinged with



reddish purple, but has similarly unribbed buds and fruit.

This species was published after Brooker's (2000) classification of the eucalypts. *E. purpurata* belongs in *Eucalyptus* subgenus *Symphomyrtus* section *Bisectae* subsection *Destitutae* because buds have two opercula, cotyledons are Y-shaped and branchlets lack oil glands in the pith. Within this sub-subsection *E. purpurata* belongs to a group of mallet and mallee species characterised by often pendulous inflorescences with pedicellate ovoid buds with a conical to beaked operculum, flattened-globose fruits with exerted fragile valves and adult leaves that are green, densely reticulate and have numerous intersectional oil glands and smooth bark. The species are the mallets *E. falcata*, *E. ornata*, *E. purpurata*, *E. recta*, *E. rugulata* and the recently described *E. annettae*; and the mallees *E. dorrienii*, *E. petrensis*, *E. ecostata* and the newly described *E. opimiflora*, plus the coastal and sub-coastal mallees *E. goniantha* (with two subspecies), *E. kessellii* (with two subspecies), *E. notactites* and *E. semiglobosa*. These mallets and mallees together form series *Falcatae* subseries *Rugatae*, albeit in a form somewhat modified from Brooker's classification.

Origin of Name

Eucalyptus purpurata : Latin *purpuratus* , purple, referring to the purple-red new growth of leaves, branchlets and buds.

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