

Eucalyptus tetraptera

Square-fruited mallee

Classification

Eucalyptus | Symphyomyrtus | Dumaria | Tetrapterae

Nomenclature

Eucalyptus tetraptera Turcz., *Bull. Soc. Imp. Naturalistes Moscou* 22(2): 22 (1849).

T: Swan River to King George Sound, W.A., *J.Drummond* 4: 71; holo: LE; iso: BM, CGE, FI, G, K, PERTH.

Eucalyptus acutangula Turcz., *Bull. Cl. Phys.-Math. Acad. Imp. Sci. Saint-Petersbourg* 10: 338 (1852). T: Swan River to Cape Riche, W.A., *J.Drummond* 189; holo: KW; iso: BM, CGE, FI, G, MEL.

Description

Mallee or shrub to 4 m tall, occasionally prostrate on exposed sites. Forming a lignotuber.

Bark smooth throughout, rarely with semi-persistent broad ribbons for ca 0.3 m of trunk, mottled dark and pale grey to silvery grey.

Branchlets square in cross-section; lacking oil glands in the pith.

Juvenile growth (coppice or field seedlings to 50 cm): stems rounded in cross-section juvenile leaves always petiolate, alternate, ovate to elliptical, 5–12 cm long, 2.5–7 cm wide, dull, green, becoming glossy.

Adult leaves coarse, thick, alternate, petioles 2–4.5(6.3) cm long; blade lanceolate to oblong, 9–20(28.5) cm long, 2.8–7.5(11.6) cm wide, base tapering to petiole or rounded, margin entire, apex pointed, concolorous, glossy, green, side-veins greater than 45° to midrib, reticulation dense, intramarginal vein remote from margin, oil glands intersectional, few or absent.

Inflorescence axillary unbranched, peduncles rigidly down-turned, with broadly curved wings, often wider than long, 0.5–6 cm long; bud solitary, sessile. **Mature buds** cuboid with 4 broad wings at the angles (3.4–6.5 cm long, 2–4 cm wide), hypanthium red, scar present (outer operculum shed early), operculum pyramidal (1.5–3 cm long), stamens inflexed, filaments glandular, anthers cuboid, versatile, sub-basifixed, dehiscing by longitudinal slits, style long and straight, stigma tapered, locules 4, the placentae each with 10 or 12 vertical rows of ovules or the rows indistinct. Flowers red to pink.

Fruit on rigidly down-turned peduncles, sessile, rarely shortly pedicellate to 0.5 cm long, cuboid and prominently winged, 3.5–5.5 cm long, 2.5–5.5 cm wide (including wings), disc descending vertically, valves 4, enclosed.

Seeds black, 3.5–6 mm long, shortly pyramidal to obliquely pyramidal, with prominent ridges continuous with conspicuous marginal flange, dorsal surface shallowly reticulate, hilum terminal.

Cultivated seedlings (measured at ca node 10): cotyledons reniform; stems rounded to

square in cross-section; leaves always petiolate, opposite for 2 to 4 nodes then alternate, ovate to broadly lanceolate, 5–9.5 cm long, 2.5–4.5 cm wide, dull. Green.

Flowering Time

Flowering has been recorded in January, February, May, September, October and November.

Occasionally grown as an unusual ornamental because of its low growth form, large glossy leaves and red buds.

Notes

A straggly mallee endemic to Western Australia, of coastal and subcoastal distribution in heathlands on sandy to gravelly soils from the Stirling Range in the west towards Israelite Bay in the east, including the slopes of Mt Ragged. It has the thickest leaves of any eucalypt and large 4-winged, squared buds and fruit.

Eucalyptus tetraptera belongs in *Eucalyptus* subgenus *Symphyomyrtus* section *Dumaria* because the buds have two opercula, stamens



are strongly inflexed, ovules are in 10 or 12 rows on the placentae and cotyledons are reniform. *E. tetraptera* forms a small subgroup (series *Tetrapterae*) with *E. stoatei*, *E. forrestiana*, *E. dolichorhyncha*, *E. brandiana* and *E. sweedmaniana*, all bearing single-flowered inflorescences and with the buds having a red base when mature, all lacking oil glands in the pith of the branchlets, and have seed that is blackish, pyramidal, with marginal flange. *E. tetraptera*, *E. brandiana* and *E. sweedmaniana* have pink-red stamens while *E. stoatei*, *E. forrestiana* and *E. dolichorhyncha* all have yellow stamens.

Sporadically in heath between the Stirling Range and Israelite Bay occasional hybrids occur, *E. x erythrandra*, with *E. tetraptera* as one parent and probably *E. angulosa*, *E. incrassata* or *E. captiosa* as the other parent. See *E. x erythrandra* for details.

In 2009 Hopper and McQuoid described two exciting new species closely related to *Eucalyptus tetraptera*, namely *E. brandiana* and *E. sweedmaniana*, both restricted endemics in southern coastal Western Australia, within the general geographic range of *E. tetraptera*. *E. brandiana* is a slender emergent mallet (lacks a lignotuber) found in coastal heath and is otherwise similar to the mallee *E. tetraptera* but with slightly larger leaves, buds and fruits. *E. sweedmaniana* is a prostrate lignotuberous shrub with smaller leaves buds and fruits than *E. tetraptera* and *E. brandiana*.

	Habit	Seedlings	Adult leaves cm	Fruit cm (incl wings)
tetraptera	lignotuber, upright mallee rarely prostrate	erect	9–28 x 2.8–11.6	3.5–6.6 x 2.5–5.5
brandiana	no lignotuber, erect mallet habit	erect	14–23.8 x 4.2–6.2	5.6–6.8 x 4.8–6
sweedmaniana	lignotuber, decumbent to prostrate shrub	prostrate	16.5–26.3 x 4.5–6.7	3.4–3.8 x 3–4.1

Data after CANB specimens and Hopper & McQuoid (2009).

Origin of Name

Eucalyptus tetraptera: Greek *tetra*-, four and *ptera*, wing, referring to the four-sided fruit.

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