

# *Eucalyptus alba* var. *australasica*

## White gum, Mottled gum

### Classification

Eucalyptus | Symphyomyrtus | Exsertaria | Subexsertae | Applanatae

### Nomenclature

**Eucalyptus alba** var. **australasica** Blakely & Jacobs ex Blakely, *Key Eucalypts* 137 (1934).



T: 22 miles [c. 35 km] S of Darwin, Northern Territory, 10 July 1933, *M.R. Jacobs* 48; lecto: NSW, *vide* S.T. Blake, *Austral. J. Bot.* 1: 276 (1953); isolecto: BRI, CANB.

### Description

**Tree** to c. 20 m tall, often deciduous during the drier months prior to the wet season. Forming a lignotuber.

**Bark** smooth, new bark pale orange to pale pink to pale yellow to creamy-white, maturing to white and weathering to grey or reddish brown just before decortication.

**Juvenile growth (coppice or field seedlings to 50 cm)**: stems square to round in cross-section, not glaucous; juvenile leaves always petiolate, alternate, ovate, 10–18 cm long, 6–13.5 cm wide, base broadly lobed to truncate to rounded, green.

**Adult leaves** alternate, petioles 1.5–4 cm long; blade lanceolate to broadly lanceolate to occasionally ovate, 8–18.5 cm long, (1.8)2.5–4.5(8) cm wide, base rounded to tapering to petiole, margin entire, apex pointed, concolorous, dull to slightly glossy green, side-veins acute or at a wider angle than 45° to the midrib, reticulation very dense, intramarginal vein present, oil glands mostly intersectional, rarely island, or sometimes somewhat obscure.

**Inflorescence** axillary unbranched, peduncles 0.5–1 cm long, angular, buds 7 per umbel, pedicellate (pedicels 0.2–0.4 cm long). **Mature buds** obovoid to obovoid or globular, 0.4–0.8 cm long, 0.4–0.6 cm wide, scar present, operculum rounded to shortly beaked (0.2–0.5 cm long), hypanthium often with two weak longitudinal ridges, stamens regularly inflexed, rarely irregularly inflexed, anthers oblong, versatile, dorsifixed, dehiscent by longitudinal slits, style long and straight, rarely hooked beneath the top of the operculum, stigma blunt, locules (3)4, the placentae each with 6 or more vertical rows of ovules. Flowers white.

**Fruit** pedicellate (pedicels 0.1–0.5 cm long), obconical to hemispherical, non-glaucous, 0.3–0.6 cm long, 0.5–0.8 cm wide, disc raised and annular, valves (3)4, exserted.

**Seeds** brown, 1.5–2 mm long, ± flattened ovoid to rarely pyramidal, dorsal surface shallowly reticulate, edge of seed sharply toothed, hilum ventral.

**Cultivated seedlings (measured at ca node 10)**: cotyledons oblong, stem square in cross-section and prominently winged; leaves opposite for c. 5 to 8 nodes, then alternate, always petiolate, ovate, 7–10.8 cm long, 4–6.2 cm wide, base rounded to tapering to the petiole, dull green to grey-green.

### Flowering Time

Flowering has been recorded in July, August and September.

### Notes

A medium-sized tree, common along watercourses and seasonally flooded, low-lying areas of the Top End of the Northern Territory and the northern Kimberley region of Western Australia. Characterised by the smooth white bark, the broadly lanceolate to ovate adult leaves, the obovoid to globular buds and hemispherical to obconical fruit with a raised annular disc and prominently exserted valves.

*Eucalyptus alba* belongs to a small group of species commonly referred to as the northern red gums (*Eucalyptus* subgenus *Symphyomyrtus* section *Exsertaria* series *Subexsertae* subseries *Applanatae*). This group is distinguished by having smooth powdery bark, adult leaves with dense to very dense venation and intersectional or absent oil glands, buds with inflexed stamens, fruit with an annular disc and ± flattened, toothed seeds with a ventral hilum. Other members of this group are *E. bigalerita*, *E. platyphylla*, *E. tintinnans*, *E. apodophylla* and *E. houseana*.

Within this group, *E. alba* is closest to *E. platyphylla* and is only weakly separated by the width of the adult leaves (usually wider than 5 cm in *E. platyphylla* and less than 5 cm in *E. alba*; however, there is some overlap, with some individuals from both taxa falling outside these



criteria). It is also very close to *E. houseana* and is weakly distinguished by having slightly larger, pedicellate buds and fruit with prominently exerted valves (fruit normally 0.5 cm or wider in *E. alba* but for *E. houseana*, 0.5 cm or narrower, ± sessile and the valves of the fruit near the rim or only slightly exerted). It is also close to *E. bigalerita* and *E. tintinnans* and is distinguished from both by the shape of the adult leaves, which are normally broadly lanceolate to occasionally ovate in *E. alba* but orbicular to deltoid in both *E. bigalerita* and *E. tintinnans*. *E. apodophylla* differs by having opposite, blue-grey to glaucous, sessile to shortly petiolate adult leaves (always distinctly petiolate, alternate and dull to slightly glossy green in *E. alba*).

*E. hallii* and *E. broviniensis*, at present placed in a different group, i.e. the series *Connexentes*, are also very close to *E. alba* var. *australasica*. *E. alba* var. *australasica* differs only marginally from both by having distinctly pedicellate buds and fruit and by its hemispherical to funnel-shaped fruit with the valves not as prominently exerted. (The buds and fruit of *E. hallii* and *E. broviniensis* are sessile to shortly pedicellate and the fruit is always funnel-shaped with strongly exerted valves). The bark of both *E. hallii* and *E. broviniensis* is often granular, like grey gum bark, while the bark of *E. alba* var. *australasica* is never granular and often powdery.

Within its area of occurrence, *E. alba* var. *australasica* may be confused with other related white gums, i.e. *E. brevifolia*, *E. confluens*, *E. cupularis*, *E. glomericassis*, *E. herbertiana*, *E. mooreana*, *E. ordiana*, *E. pantoleuca*, *E. rupestris* and *E. umbrawarrensis*.

*E. confluens*, *E. cupularis*, *E. glomericassis*, *E. herbertiana*, *E. rupestris* and *E. umbrawarrensis* all have adult leaves narrower than 2.5 cm (*E. alba* var. *australasica* normally with adult leaves wider than 2.5 cm). The adult leaves of *E. cupularis* can sometimes be slightly wider than 2.5 cm, thus overlapping slightly the range of *E. alba*. *E. cupularis* can be further distinguished by having glaucous buds and branchlets. (The buds and branchlets of *E. alba* var. *australasica* are normally not glaucous).

*E. brevifolia*, *E. ordiana*, *E. pantoleuca* and *E. mooreana* can be distinguished by having glaucous or blue-grey adult leaves (*E. alba* var. *australasica* with green adult leaves).

There are two varieties of *E. alba*:

var. **alba**

Only known from East Timor and does not occur on mainland Australia. Differs from var. *australasica* by having larger fruit (fruit to 1.5 cm wide).

var. **australasica** (referring to its occurrence on mainland Australia)

Differs from var. *alba* by having smaller fruit (fruit width no wider than 0.8 cm).

(The relationships between *Eucalyptus alba* var. *alba*, *E. alba* var. *australasica*, *E. bigalerita*, *E. hallii*, *E. platyphylla* and *E. tintinnans* need further investigation. *E. alba* var. *alba*, *E. bigalerita*, *E. platyphylla* and *E. tintinnans* are all very similar, and the taxonomy, largely based on the size of adult leaves, buds and fruit, does not appear to work across the full range for this group. It may be better that all four species be placed in one variable taxon, using the oldest name, *Eucalyptus alba*. Such a revision is beyond the scope of EUCLID; thus we have adopted the current curatorial status for this group.)

## **MORE ABOUT RED GUMS AND OTHER ASSOCIATED GROUPS**

### Origin of Name

*Eucalyptus alba*: Latin *albus*, white, referring to the colour of the bark.

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