

Eucalyptus persistens subsp. *tardecidens*

Classification

Eucalyptus | Symphyomyrtus | Adnataria | Apicales | Buxerales | Continentes

Nomenclature

Eucalyptus persistens* subsp. *tardecidens L.A.S.Johnson & K.D.Hill, *Telopea* 4 (2) 337 (1991).



Eucalyptus tardecidens (L.A.S.Johnson & K.D.Hill) A.R.Bean, *Austrobaileya* 5 (4) 683 (2000).
T: Queensland: 5 km S of Mt Carbine on Mareeba road, 16° 33' S, 145° 09' E, *K.D.Hill 1066*,
L.A.S.Johnson & D.Blaxell, 12 Aug 1984; holo: NSW; iso: BRI, CANB, MEL.

Description

Small tree to 10 m tall, rarely a mallee. Forming a lignotuber.

Bark rough to small branches, box-type, grey.

Juvenile stem square in cross-section; juvenile leaves shortly petiolate, opposite until node 3 to 7 then alternate, lowest leaves ovate then soon lanceolate, 8–11.5 cm long, 0.8–1.7(2.7) cm wide, dull, green to grey-green.

Adult leaves alternate, petiole 0.6–1.7 cm long; blade lanceolate to narrowly lanceolate, sometimes falcate, 7.5–15 cm long, 0.8–2.5 cm wide, base tapering to petiole, concolorous, glossy or dull, green to grey-green, side-veins at an acute angle to the midrib, somewhat irregularly spaced, densely reticulate, intramarginal vein parallel to and well removed from margin, oil glands small, mostly intersectional, or sometimes obscure.

Inflorescence terminal compound, peduncles 0.5–1.2 cm long; umbels 7-flowered, rarely 3-flowered, pedicels 0.2–0.6 cm long. **Mature buds** obovoid to ± pyriform, 0.4–0.5 cm long, 0.2–0.3 cm wide, green to yellow, scar usually present (outer operculum usually shed early and sometimes remains semi-attached at the apex of the inner operculum), operculum conical to rounded, stamens irregularly flexed, rarely inflexed, all fertile, anthers adnate, globose to cuboid, dehiscing by lateral or subterminal pores, style long, stigma blunt to tapered, locules 3 or 4, the placentae each with 4 vertical ovule rows. Flowers white.

Fruit on pedicels 0.1–0.8 cm long, usually cupular, rarely barrel-shaped, 0.3–0.5 cm long, 0.3–0.5 cm wide, disc descending, valves 3 or 4, enclosed or sometimes near rim level.

Seeds brown, 1–1.5 mm long, ovoid or flattened-ovoid, sometimes pointed at one end, dorsal surface shallowly reticulate, hilum ventral.

Cultivated seedlings (measured at ca node 10): cotyledons reniform to oblong; stems square in cross-section; leaves shortly petiolate, opposite for about 5 to 7 nodes, lanceolate, 6.5–11 cm long, 0.7–2.5 cm wide, dull, grey-green.

Flowering Time

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

Notes

A small tree species from central and northern Queensland, from the Marlborough district just north of Rockhampton, west to the Aramac area of central Queensland, then north through the ranges and undulating country of the Great Dividing Range to just east of Hughenden and further north-east into the area just north of the Lynd, with a disjunct population (subspecies *tardecidens*) just north of Mareeba on the northern end of the Atherton Tablelands which extends further north onto the Cape York Peninsula into the Lakeland Downs area. Characterised by its rough box-type bark to the small branches, its narrow lanceolate to linear juvenile leaves, its adult leaves with the secondary veins somewhat irregularly spaced and at an acute angle to the midrib and the intramarginal vein well removed from the margin, its terminal inflorescences, buds with the stamens irregularly flexed and normally all stamens fertile and the cup-shaped to barrel-shaped fruit where the valves are enclosed or near the rim.

It must be very closely related to *E. largiflorens*, a box tree widespread on flood plains of the Murray/Darling River systems from south-eastern Queensland, New South Wales and Victoria and South Australia, also occurring north of Adelaide and to a lesser extent in the Lake Frome and Lake Eyre watersheds in north-eastern South Australia. Morphologically there is not a lot separating *E. persistens* from *E. largiflorens*. Both have box bark to the small branches, both have narrow juvenile leaves, both have similar leaf venation, both have buds where the outer operculum can shed before anthesis or remain intact and both opercula shed together at anthesis. Apart from both occupying very different habitats in very different geographic regions, there is not a lot more we can offer to help separate these two



species on morphological grounds.

Brooker (2000) places *Eucalyptus persistens* in *Eucalyptus* subgenus *Symphyomyrtus* section *Adnataria* (the boxes) because the buds have two opercula, ovules are in four rows, seeds are flattened-ovoid, cotyledons are reniform, and anthers are rigid on the staminal filaments. Within section *Adnataria*, Brooker places *E. persistens* in a subgroup, series *Buxeales* subseries *Continentes*, further distinguished by having buds that retain the outer operculum until flowering time when both opercula are shed together, though paradoxically one subspecies, *E. persistens* subsp. *tardicidens*, does shed the outer operculum early in bud development.

Eucalyptus persistens is also closely related to *E. normantonensis* which can be separated by having rough basal box bark but smooth bark on the upper trunk and branches. *E. persistens* is rough-barked to the small branches. *E. normantonensis* can be further separated by possessing staminodes (sterile outer stamens). *E. persistens* has all stamens fertile. A recent segregate from the *E. persistens* group is *E. provecta*. It looks very similar to *E. persistens* in habit with rough box bark to the small branches but like *E. normantonensis*, it differs by possessing staminodes.

Within its area of occurrence there are two other fully rough-barked box species that may be confused with *E. persistens*, i.e. *E. brownii* and *E. microneura*. Both can be separated by the colour of the adult leaves. *E. brownii* is very glossy green, *E. microneura* is normally grey-green to blue-grey to glaucous, while *E. persistens* is normally dull green. Another fully rough-barked tropical box species from north Queensland, *E. chlorophylla*, differs in having glossy green adult leaves, slightly 4-angled buds that shed the outer operculum early and obconical fruit.

There are two subspecies:

E. persistens subsp. **persistens**

Occurs from the Marlborough region of central Queensland extending inland to the Aramac region and then continues further north to the area just north of the Lynd. Differs from subsp. *tardicidens* by retaining its outer operculum, with both shedding together at anthesis (operculum scar absent).

E. persistens subsp. **tardicidens**

Occurs from just north of Mareeba on the Atherton Tablelands to just south of Lakeland Downs on Cape York Peninsula. Differs from subsp. *persistens* by shedding its outer operculum early in bud development (operculum scar present, often the outer operculum remaining semi-attached at the apex of the inner operculum).

Origin of Name

Eucalyptus persistens: Latin *persistens*, persisting, referring to the outer operculum which normally persists until anthesis and also to the persistent rough bark.

subsp. *tardicidens*: Latin *tarde*, tardily and *cidens*, combining form of *cadens*, falling, referring to the falling of the outer operculum early in bud development.

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