

Eucalyptus pachycalyx subsp. *waajensis*

Pumpkin gum

Classification

Eucalyptus | Symphyomyrtus | Bisectae | Destitutae | Squamosae

Nomenclature

Eucalyptus pachycalyx Maiden & Blakely subsp. ***waajensis*** L.A.S.Johnson & K.D.Hill, *Telopea* 4 (2) 325 (1991).



T: Queensland: Waaje, NW corner of Barakula State Forest, *A.Bean* 19, 9 Apr. 1983; holo: NSW.

Eucalyptus pachycalyx subsp. *banyabba* K.D.Hill, *Telopea* 7: 187 (1997). T: New South Wales: North Coast: Banyabba Nature Reserve, 14 Oct 1995, *M.I.H.Brooker* 12396 & *A.V.Slee*; holo NSW; iso: BRI, CANB, MEL.

Description

Tree to 15 m tall. Forming a lignotuber.

Bark shiny, smooth throughout, mottled white, cream, pale grey with newly exposed bark pink and bright orange; often slightly powdery.

Juvenile growth (coppice or field seedlings to 50 cm): stem rounded to squared in cross-section; juvenile leaves always petiolate, opposite and lanceolate for 2 or 3 pairs then alternate, elliptical to ovate to broadly lanceolate, 5.5–13 cm long, 2.2–5.5 cm wide, green.

Adult leaves alternate, petiole 1–2.5 cm long; blade lanceolate to falcate, 8–16 cm long, 1.5–2.5 cm wide, base tapering to petiole, apex bluntly acute, concolorous, dull, green, side-veins greater than 45° to midrib, very densely reticulate, intramarginal vein parallel to and remote from margin, oil glands few, intersectional or obscure.

Inflorescence commonly paired axillary, peduncles 0.5–2 cm long, buds 7, 9 or 11, pedicellate (pedicels 0.2–0.7 cm long). **Mature buds** ovoid (0.7–1 cm long, 0.4–0.6 cm wide), yellow or creamy, scar present, operculum bluntly conical to hemispherical, stamens irregularly flexed, anthers spherical, weakly versatile to adnate, basifixed, dehiscence slits separate, style long, stigma blunt or tapered, locules 3 or 4, the placentae each with 4 vertical ovule rows. Flowers white.

Fruit pedicellate (pedicels 0.3–0.7 cm long), cup-shaped or hemispherical, 0.4–0.6 cm long, 0.6–0.9 cm wide, disc raised-annular or level, valves 3 or 4, strongly exerted.

Seeds brown, 2–2.5 mm long, depressed-ovoid or saucer shaped, dorsal surface pitted, hilum ventral.

Cultivated seedlings (measured at ca node 10): not grown yet. Note that based on the seedlings of *E. pachycalyx* subsp. *pachycalyx*, seedlings will have the following characteristics - cotyledons Y-shaped (bisected); leaves petiolate, becoming alternate after ca 5 pairs, more or less ovate.

Flowering Time

Flowering time unknown.

Notes

Eucalyptus pachycalyx is a small tree species occurring in scattered localities in Queensland and subcoastal north-eastern New South Wales. It has white to grey smooth bark, with the newly exposed bark often bright orange to creamy-pink. It gets its common name from the blaze or cut surface of the bark which resembles, in colour and texture, the flesh of the popular Queensland blue pumpkin. It could be confused with no other species because of the paired umbels in the leaf axils. This character occurs also in the closely related, fully rough-barked tree *E. squamosa*.

Eucalyptus pachycalyx belongs in *Eucalyptus* subgenus *Symphyomyrtus* section *Bisectae* subsection *Destitutae* because the buds have two opercula, cotyledons are Y-shaped and branchlets lack oil glands in the pith. Within this largely Western Australian subsection, *E. pachycalyx* is further distinguished by its tree habit, the paired axillary inflorescences and its eastern Australian distribution. *E. pachycalyx* and *E. squamosa* together form the series *Squamosae*.

There are two subspecies:



E. pachycalyx subsp. **pachycalyx** is weakly separated from subsp. *waajensis* by having an operculum which is conical and longer than the hypanthium; fruit have 3, rarely 4, valves. It is restricted to northern Queensland being found in three locations: west of Herberton, north of Mt Garnet and at Mt Mulligan. An occurrence west of Mt Spec (*vide* Bernie Hyland, Atherton, Qld) requires confirmation with specimens.

E. pachycalyx subsp. **waajensis** differs from subsp. *pachycalyx* in having slightly shorter, more blunt opercula; some plants also have longer pedicels and fruit have 3 or 4 valves. This subspecies is sporadically distributed occurring in Queensland at Waaje in Barakula State Forest, near Eidsvold, Cracow and at Bull Creek Gorge between Springsure and Tambo, and in New South Wales in Banyabba Nature Reserve near Grafton. The latter locality is the only known locality in New South Wales. Plants at this site were described in 1997 as *E. pachycalyx* subsp. *banyabba* but the authors of EUCLID do not regard this as significantly different from subsp. *waajensis*, described in 1991. Specimens of subsp. *banyabba* have a marginally shorter operculum relative to the length of the hypanthium, and more noticeably, slightly shorter pedicels and peduncles. Juvenile leaves are similar.

Eucalyptus pachycalyx subsp. *banyabba* is listed as "Endangered" under the Australian Government *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*. Further information may be found at this web address:

<http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>

Origin of Name

Eucalyptus pachycalyx: Greek *pachy-*, thick and *calyx*, calyx, referring to the thick-walled fruit.

subsp. *waajensis*: Waaje, in the Barakula State Forest, referring to the locality where this subspecies was first discovered.

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