

Eucalyptus goniocalyx subsp. *viridissima*

Long leaf box

Classification

Eucalyptus | Symphyomyrtus | Maidenaria | Euryotae | Globulares | Remanentes

Nomenclature

Eucalyptus goniocalyx subsp. **viridissima** Rule, *Muelleria* 29(1) 8-9 (2011).

T: Victoria: summit of Mount Arapiles, 36°45'03"S, 142°50'02"E, 13 May 2010, *K. Rule 3610*; (Holo: MEL; isotypes: AD CANB NSW).

Description

Spreading **tree** about 6 m tall, rarely to 15 m tall. Forming a lignotuber.

Bark rough over all of trunk, sometimes extending to small branches, or the large branches smooth; rough bark fibrous or box-type, grey, grey-brown, smooth bark white, cream or grey.

Juvenile stem rounded or square in cross-section, warty or smooth, never glaucous; juvenile leaves opposite and sessile for many pairs, orbicular or sometimes ovate, 2.7–8 cm long, 3–8 cm wide, margin entire or weakly subcrenulate, apex rounded sometimes apiculate, or emarginate, discolorous, green and glossy.

Adult leaves alternate, petiole 1.5–3.5 cm long; blade lanceolate or falcate, (7.5)9.5–24 cm long, 1.3–3.2 cm wide, flat, base tapering to petiole, concolorous, glossy, green, side-veins at about 45° to midrib, moderately reticulate, intramarginal vein parallel to and well removed from margin, oil glands island.

Inflorescence axillary unbranched, peduncles 0.8–1.6 cm long, buds 7 per umbel, sessile. **Mature buds** oblong (cylindrical) or, uncommonly, obovoid, 0.9–1.3 cm long, 0.3–0.6 cm wide, green to yellow, usually angled longitudinally, scar present, operculum conical, stamens irregularly flexed, anthers cuboid or cuneate, versatile, dorsifixed, dehiscing by longitudinal slits (non-confluent), style long, stigma blunt or tapered, locules 3 or 4, the placentae each with 4 vertical ovule rows. Flowers white.

Fruit sessile, cup-shaped or cylindrical to barrel-shaped or obconical, 0.7–1.2 cm long, 0.6–1 cm wide, sometimes slightly angled longitudinally, disc usually descending obliquely, valves 3 or 4, slightly exerted or at rim level.

Seeds black, 1–2.5 mm long, ovoid to flattened-ovoid, sometimes lacunose, dorsal surface smooth or shallowly pitted, hilum ventral.

Cultivated seedlings (measured at node 10): cotyledons bilobed; stems rounded to square in cross-section, smooth or warty, never glaucous; leaves sessile and opposite for many nodes, orbicular or broadly ovate, 3.5–6.5 cm long, 3.7–6 cm wide, base amplexicaul, margin entire or weakly subcrenulate, apex rounded, green and glossy.

Flowering Time

Flowering has been recorded in March and April.

Notes

Eucalyptus goniocalyx is a small to medium-sized tree species found on tablelands and hills from the Northern Tablelands of New South Wales to central-western Victoria, also in South Australia in the Mt Lofty and Flinders Ranges, occurring as a mallee in the driest areas. The tree form has rough box-type bark on the trunk extending at least as far as the largest limbs and often to the smallest branches, but there is little or no rough bark on the mallee form. Adult leaves are always glossy green and buds and fruit are sessile in the axillary clusters.

In eastern Australia it is most likely to be confused with the often co-occurring *E. bridgesiana* but differs in the following ways: rough bark does not become tessellated, the orbicular juvenile leaves remain opposite for many pairs rather than becoming subopposite to alternate, and the buds and fruit are sessile. A related species, *E. nortonii*, occurs on poorer sites with shallow soil and differs by the glaucous adult leaves, buds and fruit.

The authors of EUCLID recognize three subspecies:

E. goniocalyx subsp. **goniocalyx**

Distributed south from Glen Innes and the Liverpool Range through the tablelands and western slopes of New South Wales, through the lower parts of the eastern highlands and the midlands of Victoria, both north and south of the Great Dividing Range, extending west to the Grampians and to near Diapur in the Wimmera district; and disjunctly in South Australia from the Mt Lofty Ranges as far as Mt Brown east of Port Augusta.

E. goniocalyx subsp. **exposa**



Found in the northern Flinders Ranges in South Australia where restricted to high exposed sites in the Elder range and Wilpena Pound Range. It differs from the other subspecies in being of poorer form, having much less rough bark, glaucous branchlets and not quite as glossy adult leaves.

E. goniocalyx subsp. **viridissima**

A Victorian endemic abundant on Mount Arapiles and also occurring in the northern Grampians at Mount Zero, near Halls gap, the northern Serra Range, and Red Rock in the Victoria Range. Subsp. *viridissima* can only be identified by its seedling and juvenile growth which have leaves strikingly mid-green and glossy, not glaucous like other subspecies. Elsewhere in Victoria botanists have collected this subspecies with its green juvenile growth: S of Wangaratta at 15-mile Creek and in Burrowa - Pine Mountain National Park. Seedlings raised from a population of trees of *Eucalyptus goniocalyx* subsp. *goniocalyx* at Mulligans Flat Nature Reserve, ACT, are occasionally green and glossy (non-glaucous) but more usually glaucous.

Eucalyptus goniocalyx belongs in *Eucalyptus* subgenus *Symphomyrtus* section *Maidenaria*, a large group of species more or less restricted to south-eastern Australia, characterised by bilobed cotyledons, simple axillary inflorescences, buds with two opercula the outer of which sheds early in bud development, stamens with versatile anthers and flattened seeds with a ventral hilum. Within this section, *E. goniocalyx* belongs in series *Globulares* subseries *Remanentes*, having sessile, juvenile leaves opposite for many pairs on square stems, small buds in clusters of seven and small fruit usually with a descending disc.

Kevin Rule (2011) published three new subspecies of *Eucalyptus goniocalyx*, all endemic to Victoria. Subp. *viridissima* is included above, whilst the Rule's other two subspecies, viz. *E. goniocalyx* subsp. *laxa* Rule and *E. goniocalyx* subsp. *fallax* Rule, are regarded as plants of intermediate morphology between *Eucalyptus goniocalyx* and *E. cypellocarpa*.

Origin of Name

Eucalyptus goniocalyx: Greek *gonio-*, angled and *calyx*, calyx, referring to the angles on the fruit.

subsp. *viridissima*: from the Latin *viridis* green, and *-issimus* meaning very, referring to the seedling and juvenile leaves.

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