

*Eucalyptus* L'Hér. GUM TREE

*Eucalyptus globulus* Labill., TASMANIAN BLUE GUM. Large tree, evergreen, sclerophyllous, in range < 40 m tall (potentially taller where cultivated); shoots with leathery leaves on spreading and pendent adult shoots, sometimes with juvenile leaves on ascending shoots arising from lower trunk, glabrous, glaucous with conspicuous surface wax, strongly aromatic and gland-dotted from special glands (secretory cavities) embedded in tissues; bark shedding in upper parts of tree and exposing younger bark, older bark persistent at base of trunk and often higher up on trunk and at base of major branches, grayish brown, splitting into vertical or slightly helical (especially at base), ribbonlike, irregular strips, exposed younger bark smooth, cream- or light cinnamon-colored to grayish, bluish gray, or greenish gray. **Stems:** young stems of adult shoots squarish to round in  $\times$ -section and aging cylindrical, green and reddish dotted with whitish glands, typically not glaucous; young stems of juvenile shoots squarish in  $\times$ -section with 4 prominent, often reddish ridges or wings, grayish white and glaucous but green and glandular beneath thick wax layer, with 2 ridges descending from each leaf, the glands of stem dense and slightly raised. **Adult leaves:** helically alternate, simple, petiolate, without stipules; petiole hemi-cylindric to flattened, < 65 mm long, often somewhat twisted, gland-dotted,  $\pm$  transversely wrinkled; blade lanceolate to narrowly lanceolate and straight to  $\pm$  sickle-shaped, 100–200(–290)  $\times$  (15–)25–45 mm, thick and stiff with tough midrib, tapered to broadly tapered at base, entire and often rose to reddish on margins, acuminate at tip, pinnately veined with lateral veins joined to a common vein 1–2.5 mm from margin and midrib only slightly raised on both surfaces, dark green with yellowish midrib, glaucous with bluish cast, finely dotted with light stomates and dark oil glands within leaf tissues. **Juvenile leaves:** opposite decussate (basally) and helically alternate (above), simple, sessile (lower leaves) to short-petiolate (upper leaves), without stipules; petiole to 3 mm long; blade ovate 55–95  $\times$  35–45 mm, less stiff than adult leaves, cordate at base and sessile leaves  $\pm$  clasping, entire, acuminate at tip, pinnately veined, upper surface darker green but when young blue-gray glaucous, lower surface silver-gray glaucous. **Inflorescence:** solitary or occasionally umbel of 3 flowers, axillary on pendent young shoots, flowers sessile to subsessile, glabrous, glaucous; peduncle (= pedicel) stout, 1–5 mm long, with 2 ridges. **Flower:** bisexual, radial, 40–50 mm wide; hypanthium inversely conic, 12–14  $\times$  13–17 mm with width increasing in fruit, rimmed, compressed and prominently 2-ridged or  $\pm$  quadrangular and prominently 4-ridged, sometimes with minor intervening ribs, the rim erect to ascending, 1–1.5 mm long; **perianth (operculum)** = a thick cap of fused sepals and petals, 13–17 mm wide, externally ridged and warty, with conic center, glaucous with dense bluish white waxy bloom, internally glandular, the oil glands numerous, raised and blisterlike, yellowish green aging amber, abscising at anthesis; **stamens** > 1000, free, = a dense mass of stamens on a rim (staminophore); filaments ascending to spreading, 5–12 mm long, cream-white; anthers dorsifixed, dithecal, 1 mm long, pale yellow, longitudinally dehiscent; pollen pale yellow; staminophore ringlike, 12–16 mm diameter, erect, 3 mm long, 1.5 mm thick; **pistil** 1; ovary inferior, inversely conic, as wide as bud cap, thick-walled with large oil glands in the outermost and innermost tissues, slightly cupped around style, typically 4-chambered, each chamber packed with numerous ovules; **nectary disc** partially covering ovary and

producing copious nectar covering ovary, weakly 4-lobed, greenish, the lobes directed upward and slightly inward toward style; style stout-cylindric, 7–10 mm long, green, with embedded oil glands; stigma terminal, green but often becoming rose-colored. **Fruit:** capsule, woody, dehiscent on top by 4(6) valves, many-seeded, inversely conic to hemispheric, 18–25 mm wide, woody, conspicuously ridged, glaucous, with groove between hypanthium rim and top of ovary (staminophore + nectary disc), the valves typically not protruding beyond top of ovary, the nectary rim and staminophore becoming flattened, dry, and hard at maturity. **Seed:** angular club-shaped and straight to slightly curved to  $\pm$  ovoid, 1–3.5  $\times$  0.6–0.8 mm, dark orange to brownish, faintly roughened or netlike. Early December–late February.

Naturalized. Evergreen tree planted throughout the range and occasionally reseeding near planted groves. *Eucalyptus globulus* has conspicuous, axillary cream-white flowers appearing only during winter months, whereas other species of eucalpts have flowers in clusters. If recognized, our material would be *E. globulus* subsp. *globulus*.

B. A. Prigge & A. C. Gibson