

# Saligna eucalyptus

*Eucalyptus saligna* Sm.

Myrtle family (Myrtaceae)

Post-Cook introduction

A very large tree 130–200+ ft (39–61 + m) high. Trunk 2–4 ft (0.6–1.2 m) in diameter, straight, excellent form, and two-thirds of total height of tree. Crown open, spreading, irregular. Bark dull greenish gray, smooth, peeling off slightly and exposing yellow layer; on large trunks usually 4–8 ft (1.2–2.4 m), but sometimes up to 30 ft (9 m) from base, becoming gray brown, thick, rough, furrowed into short narrow ridges or plates, persistent. Inner bark with green cap, then whitish, fibrous, bitter. Twigs slender, angled, yellow green to pink. Presently, the principal species being used for forestation in Hawaii. This species rosegum eucalyptus, *Eucalyptus grandis* W. Hill ex Maid., are compared in the key to species.

Leaves alternate, on slender slightly flattened yellow green to pink leafstalk of ½–1 inch (13–25 mm). Blades lance-shaped, 4–8 inches (10–20 cm) long, ⅝–1¼ inches (1.5–3 cm) wide, often curved, tapering to long point, short-pointed at base, dull green or dark green above, dull light green beneath, with fine straight parallel side veins scarcely visible, hanging obliquely or horizontal. Juvenile leaves opposite for 3–4 pairs, then alternate, short-stalked, lance-shaped, 1¼–2½ inches (3–6 cm) long and ¾–1½ inches (2–3 cm) wide, thin, slightly wavy, pale green.

Flower clusters (umbels) at leaf bases and along twigs about ¾ inch (2 cm) long including flattened or angled stalk. Flowers 4–9, usually 7, short-stalked or stalkless, ½–¾ inch (13–19 mm) across the many spreading white stamens. Buds ⅜ inch (10 mm) long and ⅓ inch (5 mm) wide, with conical to bell-shaped base, lid conical and bluntly or sharply pointed.

Seed capsules on short stalk of ¼ inch (6 mm) or none, conical or slightly bell-shaped, about ¼ inch (6 mm) long and wide, dark brown, with narrow sunken disk and 3–5 narrow pointed valves slightly projecting and spreading.

Sapwood pale brown and heartwood light reddish brown. Grain varies from straight to strongly interlocked, the latter producing a pronounced ribbon-stripe figure on quartered faces. Generally paler in color and finer in texture than wood of *E. robusta*. Moderately heavy (sp. gr. 0.61), but variable between inner and outer wood from logs. Slightly stronger than *robusta* in most properties because of its slightly straighter grain. Wood is very stiff and is highly subject to brittleheart formation. Compression failures are very common in interior wood of logs. Wood of trees less than 12 years old is of low density but free of brittleheart and, though of low grade, easy to work and suitable for general construc-

tion (Skolmen 1974). Normal wood from older trees is moderately resistant to decay but not resistant to termites.

*Saligna eucalyptus* wood in Hawaii used mostly for flooring and pallets. Otherwise its uses have been identical with those of *E. robusta*, but on a lesser scale. It is a good pulpwood and has been chipped and shipped to Japan. Because of serious growth stress problems, pulpwood is probably its best use. It is a major pulpwood species in Brazil and South Africa, although the trees there are often hybrids with *E. grandis*. Now, this is the main species in biomass fuelwood plantations in Hawaii.

Introduced to Hawaii about 1880 and planted fairly extensively on all islands, particularly after 1960. Before 1960, the Division of Forestry planted 437,000 trees. Since then, more than 1 million have been planted. There are presently about 10 million board feet on Hawaii and 8 million on Oahu. The tree has remarkable growth on good sites. One tree was measured at 106 ft (32 m) at 5 years of age. The tallest hardwood tree in the United States is a *saligna eucalyptus* growing in North Kona that was 276 ft (84 m) high in 1980. Recently, a tree only 44 years old was felled in a stand near Umikoa, Hawaii, and measured on the ground as 236 ft (72 m). Four other trees from the same stand were 194–208 ft (59–63 m) measured on the ground.

The local race of *saligna eucalyptus* planted most extensively in Hawaii is believed to be a hybrid with *E. grandis* and possibly other species. Plantings made with third or fourth generation seed show considerable variation because of inbreeding depression. Recent plantings have been made with trees with provenances from Australia and Brazil to offset this problem.

It is classed as a honey plant, and is too large for ornamental planting.

Trees may be seen on the right side of the Volcano Highway at O'laa Forest Park at Mountain View, Hawaii, along the Hana Road near Pua'aka Park on Maui, along the Aiea Loop Trail on Oahu, and in the Puu Ka Pele Forest Reserve near Kokee Park, Kauai.

**Special areas:** Keahua, Wai'akea, Aiea, Kalopa

## Range

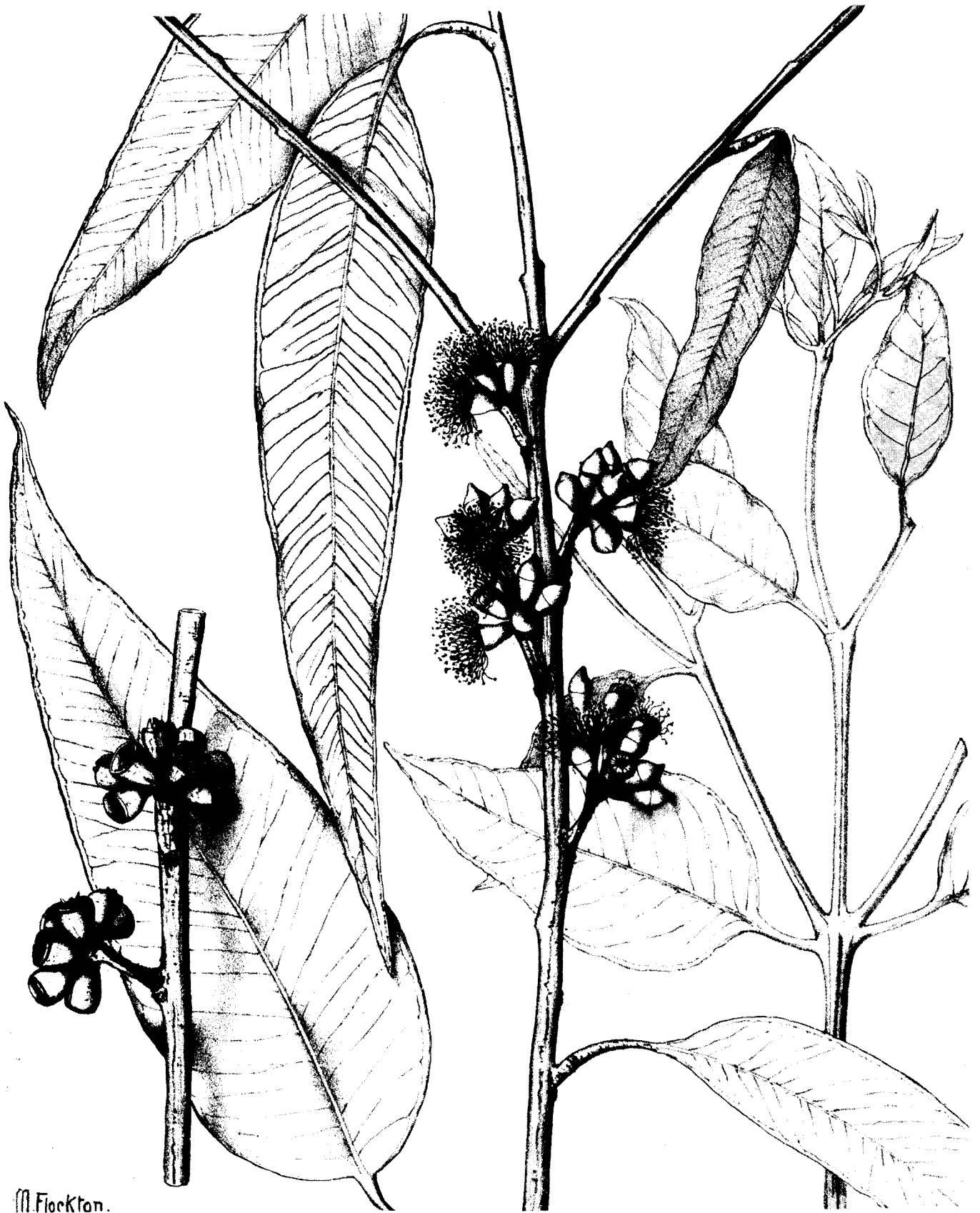
Southeastern Australia within 100 miles (161 km) of the coast, commonly mixed with other eucalypts, occasionally in pure stands. It grows on slopes while *E. grandis* grows on bottom land in moist coastal forests.

## Other common names

Sydney bluegum eucalyptus, flooded-gum (Hawaii); Sydney bluegum, bluegum (Australia)

## Champion

Apparently the tree mentioned above as 276 ft (84 m) high in 1980.



**Saligna eucalyptus**  
*Eucalyptus saligna* Sm.

Twig and flowers, fruits (lower left), twig with juvenile leaves (right), fruits (bottom), 1 X (Maiden).