

## Naio, false-sandalwood

*Myoporum sandwicense* Gray

Myoporum family (Myoporaceae)

Native species (endemic)

One of the common trees of the island of Hawaii from sea level to timberline, in both dry and wet forests through the islands. Recognized by its dark gray very thick, rough and irregularly furrowed bark, many crowded narrowly elliptical lance-shaped leaves resinous or sticky when young, small white to pinkish bell-shaped flowers at leaf bases, and whitish oblong rounded fruits.

A small tree of 30 ft (9 m) in height and 1 ft (0.3 m) in trunk diameter, with thin rounded crown, or a large tree recorded to 60 ft (18 m) and 3 ft (0.9 m), or a wind-swept shrub or dwarf shrub of 2 ft (0.6 m) at timberline. Bark on small trunks gray and smoothish, becoming very thick, rough and irregularly furrowed or scaly and divided into small plates, the trunk slightly angled. Inner bark light brown, slightly bitter. Twigs greenish with tiny hairs when young, becoming brown, with raised half-round leaf-scars.

Leaves many, alternate, crowded near end of twig, mostly hairless, with flattened yellowish leafstalk of  $\frac{3}{8}$  inch (1 cm). Blades 2–6 inches (5–15 cm) long and  $\frac{3}{8}$ –2 inches (1–5 cm) wide, broadest near middle and tapering to long point at both ends, rarely with toothed edges, thin or slightly thickened, side veins not visible, above dull green, paler beneath, with gland-dots visible under lens.

Flowers many fragrant, 1–9 on slender stalks of  $\frac{1}{4}$ – $\frac{1}{2}$  inch (6–13 mm), clustered at leaf base and scattered along twig, bell-shaped, about  $\frac{1}{2}$  inch (13 mm) across, composed of green calyx of  $\frac{1}{8}$  inch (3 mm) deeply 5-lobed; pinkish or whitish corolla about  $\frac{5}{16}$  inch (8 mm) long with short tube and mostly 5–8 elliptical curved spreading lobes; stamens mostly five in notches of corolla; and pistil with elliptical ovary mostly five-celled (4–8) with 1 ovule in each cell and slender style.

Fruits (drupes) many on slender stalks at leaf bases and on twigs back of leaves, oblong or rounded, about  $\frac{5}{16}$  inch (8 mm) in diameter, whitish or tinged with purple, with calyx and style remaining, juicy, bitter, becoming dry, wrinkled, light brown. Stone large, with 5–8 cells and seeds.

Sapwood is pale brown and heartwood dark yellowish brown, moderately heavy (sp. gr. 0.55), hard, and

fine textured. The wood has an attractive figure imparted by dark zones in the growth rings. It gives off an odor somewhat like sandalwood during drying, but the odor is short-lived. After the supply of sandalwood was exhausted, this wood was shipped to China as a substitute, but was not accepted. A fire made from the wood is almost unbearably fragrant, according to Degener (1930, 261–271). Considered a good firewood by most upland ranchers.

Timbers of this species were among those preferred for frames of the Hawaiian houses. It was also used for fishing torches because of its good burning characteristics. A number of large trees have been cut in recent years, and the lumber produced has been used for flooring, furniture, and craftwood items. Although not too stable, it has performed well in service.

This handsome plant with many pinkish white flowers is suitable for cultivation as an ornamental shrub. Livestock poisoning has been reported in related species westward.

Common in dry upland forest and brushlands and near sea level mostly as a shrub. Becoming uncommon in many areas formerly occupied because of site disturbance. On Hawaii and Maui, large trees occur in wet and dry forests, on the other islands it is mostly a shrub. Trees may be seen in Hawaii Volcanoes National Park along the Mauna Loa Strip Road and at Kipuka Puaulu and near Pohakuloa on the Saddle Road. It also grows as a large tree in the Waiakea Forest Reserve ‘ōhi‘a treefern rain forest and in the koa-‘ōhi‘a forest near Kulani Cone. It grows from sea level to timberline at 10,000 ft (3048 m). Recorded from Niihau.

### **Special areas**

Waimea Arboretum, Wahiawa, Bishop Museum, Volcanoes, Kipuka Puaulu

### **Champion**

Height 70 ft (21.3 m), c.b.h. 17.2 ft (5.2 m), spread 56 ft (17.1 m). Keauhou, North Kona, Hawaii (1968).

### **Range**

Including varieties widespread through the Hawaiian Islands including Niihau, but extinct on Kahoolawe. Not known elsewhere.

### **Other common names**

sandalwood myoporum, ‘a‘aka (wood and dead trees), naieo, naeo, false sandalwood.



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Twig with flowers and fruits, about  $\frac{2}{3}$  X;  
flower (below), slightly enlarged (Degener).