

Kauila

Alphitonia ponderosa Hillebr.

Buckthorn family (Rhamnaceae)

Native species (endemic)

Medium-sized to large handsome evergreen tree of dry forests characterized by rusty hairs on twigs, leafstalks, flower stalks, and under surface of the young ovate leaves, by lateral clusters of small greenish flowers spreading like a five-pointed star, and by rounded fruits ringed near middle. To 50–80 ft (15–24 m) high with straight trunk 8–24 inches (0.2–0.6 m) in diameter, or only a shrub on exposed ridges. Bark whitish gray, rough and furrowed. Twigs with raised half-round leaf scars and rusty hairy buds composed of minute leaves.

Leaves alternate, with leafstalks $\frac{1}{2}$ –1 inch (13–25 mm) long. Blades ovate, 2–6 inches (5–15 cm) long, long-pointed at apex, rounded at base, not toothed on edges, slightly thickened and leathery, with curved parallel side veins, shiny dark green and hairless above, and beneath dull light green with rusty hairy raised veins.

Flower clusters (cymes) at leaf bases, shorter than leaves, with widely forking hairy branches. Flowers several, of one or both sexes (polygamous), short-stalked, about $\frac{1}{4}$ inch (6 mm) across. The short cuplike base (hypanthium) bears five spreading pointed hairy sepals more than $\frac{1}{16}$ inch (1.5 mm) long; five narrow spoonshaped petals half as long and partly enclosing the five opposite stamens; and pistil with cancelled ovary covered by broad rounded disk and with short 2–3-forked style.

Fruit (drupe) about $\frac{5}{8}$ inch (15 mm) in diameter, with ring formed by cuplike base, containing two or three stones. Seeds oblong, shiny, with red covering.

The wood has a beautiful cherry red or dark red color with wide light yellowish brown sapwood. It has distinct growth rings and is diffuse porous, fine-textured, very hard, strong, and durable. One of the heaviest native woods, it sinks in water. It was highly valued by the Hawaiians and served for tools in the absence of metals. The many uses included hut beams, mallets for beating tapa cloth, spears 13–20 ft (4–6 m) long, javelins, and the o'o or digging stick for cultivating fields. The lintels above the windows of the Hawaiian Mission Printing House, built in 1821, were of this wood and were quite sound when removed for restoration in 1972. Rounded polished rods of the wood became hairpins for women.

Widespread in the lower dry forest on the leeward side of the six large Hawaiian Islands, sometimes on exposed ridges and on aa lava fields at 800–4100 ft (244–1250 m) elevation in koa forest. Rare except on Kauai.

Special areas

Kokee, Volcanoes

Champion

Height 62 ft (18.9 m), c.b.h. 7 ft (2.1 m), spread 54 ft (16.5 m). Kokee State Park, Kauai (1968).

Range

Known only from Hawaiian Islands.

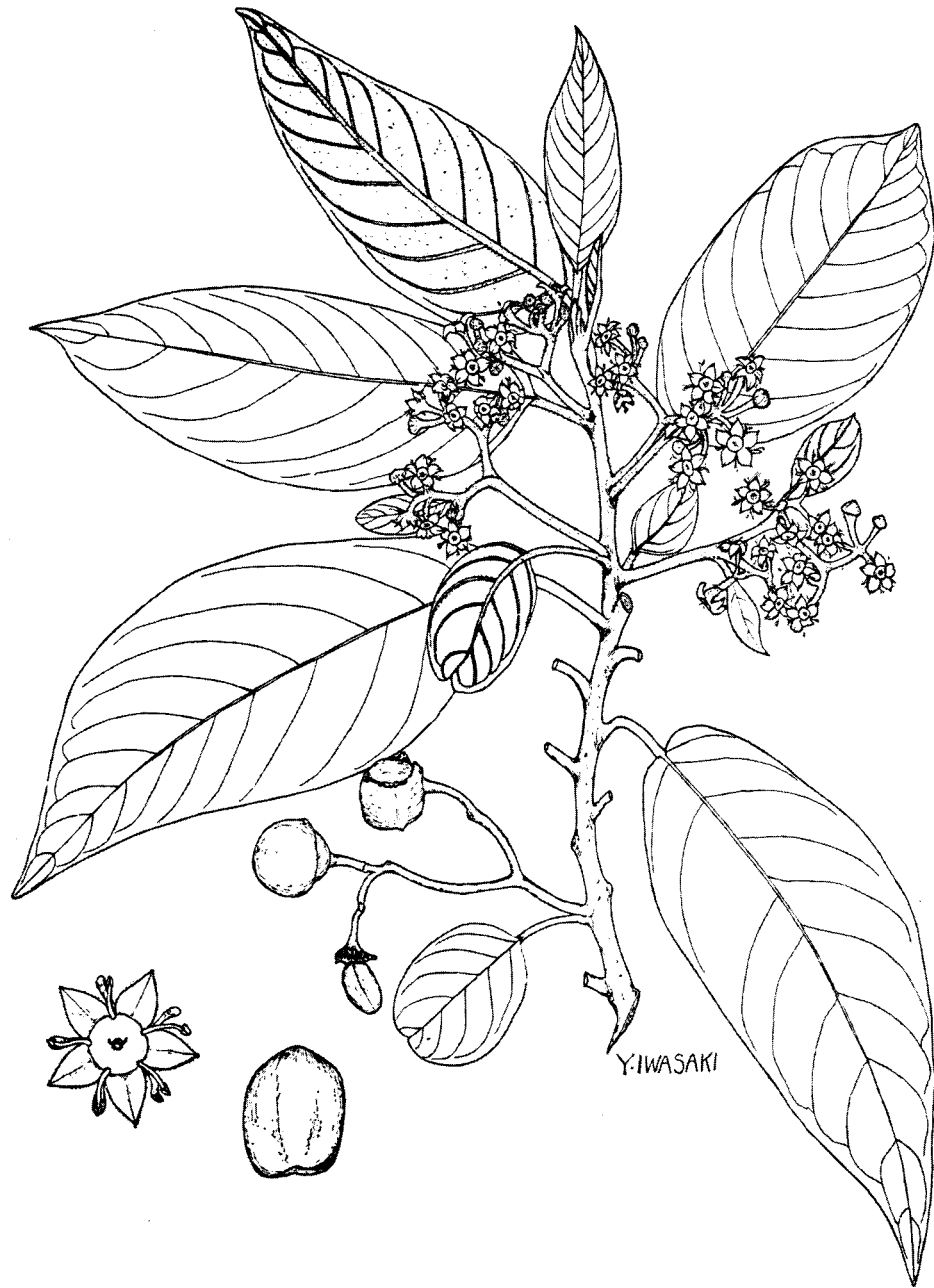
Other common name

o'a

Botanical synonym

Alphitonia excelsa auth., not (Fenzl) Reiss. ex Endl.

St. John (1977a) has distinguished six varieties, each restricted to a separate island.



Kauila

Alphitonia ponderosa Hillebr.

Twig with flowers and fruits, 2/3 X;

flower and fruit (lower left), 3 X (Degener).