

Meu, Hawaiian treefern

Cibotium hawaiiense Nakai & Ogura

Treefern family (Dicksoniaceae)

Native species (endemic)

This treefern, not distinguished in older references, is limited to wet forests of the island of Hawaii. It is recognized by the slender smooth trunk, by the leafstalks appearing hairless but covered with soft matted dull brown hairs with masses of pale, dull gray brown, narrow flattened hairlike scales on enlarged base and lower part; and by the leaf segments light green beneath.

A shrub or sometimes small tree with slender unbranched trunk to 20 ft (6 m), and 4–6 inches (10–15 cm) in diameter, and with erect and nearly horizontal spreading leaves adding as much as 6 ft (1.8 m). Lower part of trunk is smooth, and upper part bears dead broken leaves.

Leaves (fronds) several, erect and spreading, the oldest dying and bending down along trunk and breaking off cleanly, very large, feathery, divided 3 times (pinnate), mostly 5–6 ft (1.5–1.8 m) long. Leafstalk or axis (stipe) stout, flattened above, the enlarged base and lower part with masses of pale dull brown hairlike scales 1¼–2 inches (3–5 cm), beyond green and hairless. The main axis bears many pairs of branches (pinnae) to 2½ ft (0.8 m) long, further divided. Branches (pinnules) many pairs, narrowly lance-shaped, 5–6 inches (13–15 cm) long and ¾ inch (2 cm) wide, mostly with very short stalk at base, further divided or lobed almost to midvein. Segments or lobes many, nearly paired, oblong narrow rounded, to ¾ inch (10 mm) long and ⅜ inch (5 mm) wide, with edges turned under and finely wavy, thin, upper surface light green with inconspicuous veins, lower surface dull light green with tiny cobwebby hairs.

Older leaf segments bear, on lower surface at ends of veins and on edges, two rows of seven or fewer yellowish boxlike cups (indusia) more than ⅓₂ inch (1 mm) wide, each containing masses of dark brown spore cases (sporangia), which shed masses of microscopic spores abundantly.

The uses are similar to those described for the first species of treefern, but the stem is rarely large enough in diameter to be sawed or even bucked into “pots.”

Widespread in wet forests at low and middle altitudes; of 800–6000 ft (244–1829 m) on the Island of

Hawaii. An understory plant in ‘ōhi‘a forests, often abundant in thickets.

Special area

Hawaii Volcanoes National Park, uncommon except in ‘Ōla‘a tract

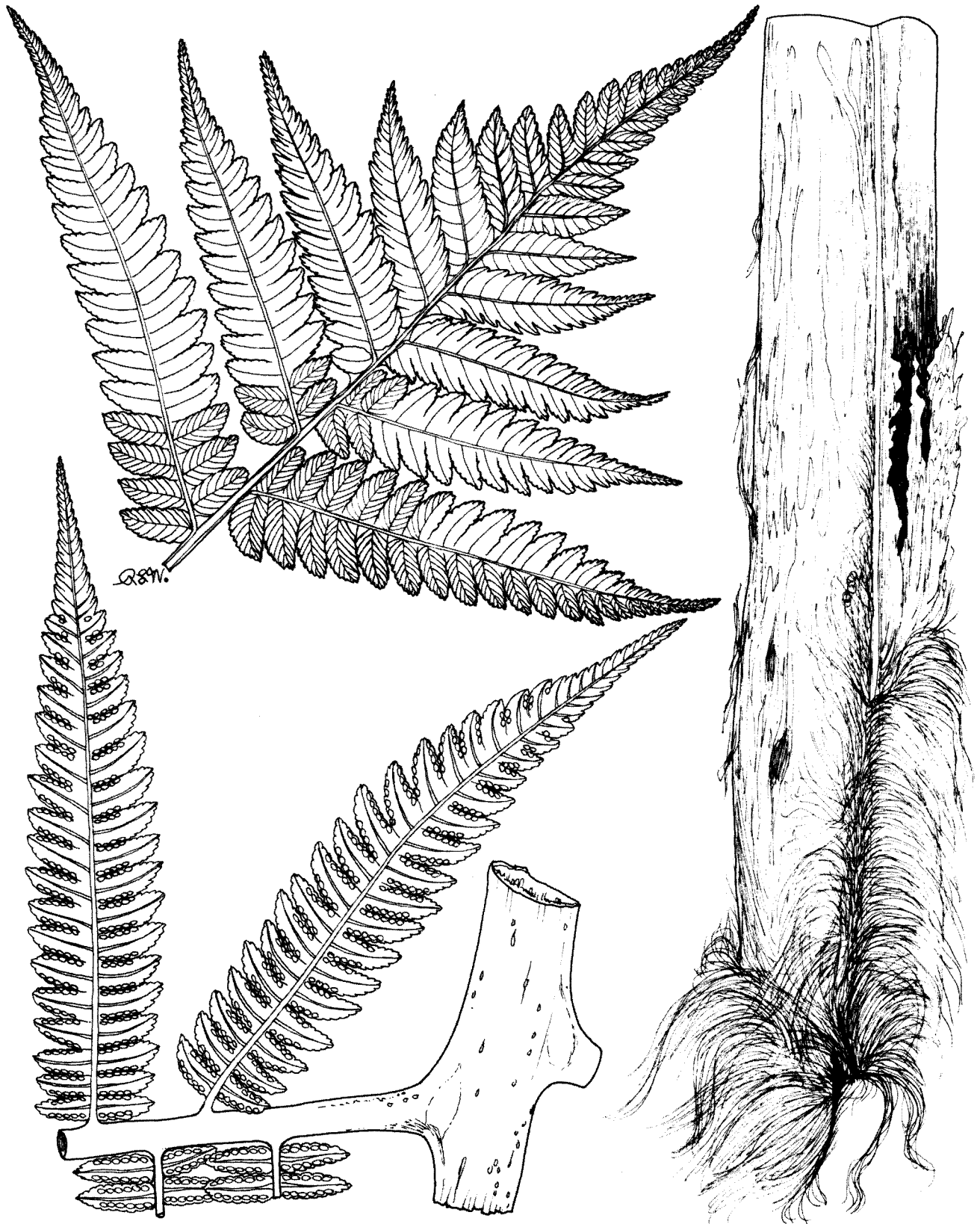
Range

Island of Hawaii only

Other common name

hāpu‘u

Closely related to *Cibotium splendens* (Gaud.) Krajina (earlier called *C. chamissoi*) and not distinguished in most references. Perhaps only a variety of that species, which is more common.



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Upper leaf surface (above), lower leaf surface (below) base of axis (right), 2/3 X.