



Hapuu (Hawaiian Tree Fern)

Cibotium glaucum (Sm.) Hook. and Arnott
(synonym: *Cibotium splendens* (Gaud) Krajina)
Common name: hapuu, hapuu pulu, Hawaiian tree fern

Habitat

Hapuu is native to most islands in Hawaii. One of more than 800 species of tree ferns, these descendants of prehistoric vegetation are found worldwide in semi-wet to wet forests from sea level to 5000 ft elevation.

Hapuu was once common in wetter areas of all the major Hawaiian islands. Until recently, large numbers of Hawaiian tree ferns were harvested for orchid media and landscape use. Over-exploitation has reduced hapuu stands drastically.

Presently all tree ferns are considered threatened species, because so many of them are found only in the rapidly diminishing rainforests of the world. It is illegal to ship tree ferns or tree fern products internationally. This, however, does not protect tree ferns within a country from destruction.

The last remaining large stands of native hapuu are found on the island of Hawaii. Their numbers are being rapidly reduced by clearing and development, except in protected areas, such as Hawaii Volcanoes National Park.

Characteristics

Hapuu pulu grows to 15–20 feet tall and has a 15-foot spread. It is the most common tree fern in Hawaii and is a landscaping favorite, creating a tropical appearance and feeling with its lacy, arching, fresh, apple-green colored leaves. It is very slow growing. The average rate of growth for young hapuu ferns is about 3½ inches per year. The rate of growth slows as the plant grows older.

Hapuu is a fern and does not produce flowers. The spores (“seeds”) are produced by fruiting bodies on the underside of the leaves.

Hapuu fronds (“leaves”) have an intricately divided, tri-pinnate form and are 3–9 ft long. The fronds emerge from a stout, fibrous, dark brown trunk, or base. The growing point, stalks, and young unfurled fronds of hapuu pulu are covered with a silky, redbrown, wool-like fiber called *pulu*, which was used in ancient times for dressing wounds and embalming and for stuffing pillows and mattresses.

The fronds of hapuu ii, another native Hawaiian tree fern, have a thick growth of stiff, dark hair on the petioles. Hapuu ii is slightly larger than hapuu pulu and has more leathery frond stems. Otherwise, the two species of hapuu are nearly identical in appearance.



Landscape uses

Tree ferns are excellent small trees and are especially pleasing as specimen plants to create a soft-textured, tropical effect in landscapes and gardens. Hapuu ii seldom survives transplanting and is rarely used in landscapes.

Unfortunately, the Hawaiian tree fern is becoming scarce. It should only be planted where garden conditions are ideal. Trunks cut and planted in less-than-ideal locations live for a while but gradually decline and die. Do not collect tree ferns from the forest without proper authorization. Whenever possible, use only species grown by nurseries.

Australian and Asian tree ferns are available in many local nurseries. These species grow more rapidly than hapuu and may be a better choice in most situations.

Culture

Hapuu is relatively easy to grow under proper conditions. They are reasonably tolerant of a variety of conditions. Hawaiian tree ferns prefer well drained, slightly acid soils and partial shade but tolerate full sun in cloudy, upland areas or in well maintained landscapes. In hot, sunny lowlands, they need protection from the sun and drying winds. Tree ferns benefit from a steady supply of water and occasional light applications of a complete fertilizer containing slow-release nitrogen. Old and injured fronds should be pruned. Tree ferns seldom branch. Termites and mites may cause some minor problems.

Propagation

The side shoots at the base of the plant can be removed to produce new plants. Hapuu can also be started from spores.

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