Pritchardia viscosa
Rock

Status: **US Federally Listed as Endangered (E); (CR)**

Common name

Loulu.

Natural range

Kauai, Hawaii, USA.

Recognition characteristics

Pritchardia viscosa is a medium palm, 6 to 13 m height; the stem gray-brown with vertical striations, 16 to 21 cm DBH.

It has an open crown with ca. 10 to 20 leaves. It is the only member of the genus with flowers, buds (calyx and corolla) covered in a thick viscous as if varnished. The rachillae (flower bearing branches) are glabrous and viscous. There are one to three panicles; the peduncular bracts are wooly, dense, tan; and the inflorescence are shorter than the crown; the lower surface of the leaf blades are covered with a silvery-gray, lepidote; the ripe fruit are fibrous, black, and elliptical-pyriform, 40 x 25 mm.

Natural history

Pritchardia is the only member of Arecaceae native to Hawaii with 23 known single island endemic species, and demonstrates the richest palm diversity in terms of species in the United States. All Hawaiian *Pritchardia* spp. possess fragrant, perfect flowers. Although there is a possibility that their pollinator(s) have become extinct (over 50% of the avifauna are extinct in Hawaii), they manage to pollinate successfully. The author has observed the endemic Kamehameha butterfly (*Vanessa tameamea*) visiting *P. viscosa* flowers. They demonstrate high seed viability if collected ripe at the time of shedding. Only three individuals remain in the wild. They grow as congeners with *P. waialealeana*, *P. hardyi*, and *P. flynnii* within a degraded open mesic forest with a clay-soil substrate, at 427 m elevation.

Threats to survival

Predation of *P. viscosa* seeds occurs from introduced rats (*Rattus rattus*, *R. exulans*, and *R. norvegicus*). Introduced vertebrates such as deer (*Odocoileus hemionus columbianus*), goats (*Capra hircus*), and pigs (*Sus scrofa*) also reduce *P. viscosa* seedlings by grazing and uprooting them. Invasive weeds such as grasses (*Paspalum conjugatum*) and guava (*Psidium guajava, P. cattleianum*) can form weed mats and out-compete young palm seedlings. Seed harvesting and poaching by humans also occurs. One individual had permanent damage to its stem made by a person wearing pole-climbing spikes. A seedling in the population area was removed, after being observed by the author for over four years and an intentional, shovel-made hole in the ground remained. Pests and disease are a constant threat. Existing threats include the two-spotted leaf hopper (*Sophonia rufofascia*), and *Phytophthora*, as well as serious potential threats if introduced, such as the West

Indian sugarcane borer (*Metamasius hemipterus*) or Lethal Yellowing disease and its known vector the palm cixiid (*Myndus crudus*).

Current Conservation Measures

In situ management has been conducted by the land managers, the Department of Land and Natural Resources, Division of Forestry and Wildlife (DLNR-DOFAW) with a fenced exclosure around two individuals protecting them from grazing animals and pigs, metal rat guards also circle their stems. *Ex situ* collections with known wild origins are maintained and protected by the DLNR-DOFAW, botanic gardens on Kauai and Oahu. *Pritchardia viscosa* is recognized by the Center for Plant Conservation (CPC), which provides educational awareness. Recovery plans have been thoroughly researched and produced for *P. viscosa* by the United States Fish and Wildlife Service (USFWS).

Additional Necessary Conservation Actions

Recommended management strategies include: protection of *in situ* populations, adding rat baiting, invasive weed management and long-rang monitoring; establish new wild populations; establish effective *ex situ* populations; collaborate to accomplish conservation biology research; adhere to invasive weeds, pest management, and quarantine procedures. Establish reliable protocols for seed storage, including effective seed banking as a conservation tool.

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Scientific Contributors

Melany H. Chapin, Ph.D., Bishop Museum Research Associate, Hawaii, USA.

Mike Maunder, Ph.D., Center for Tropical Plant Conservation, Fairchild Tropical Garden, Coral Gables, Florida, USA.

Pritchardia viscosa . Crown with inflorescences. Photo MH Chapin.

Pritchardia viscosa . Densely wooly, tan peduncular bracts. Photo MH Chapin.

Pritchardia viscosa habitat . Photo MH Chapin.