

that we have no alternative but to describe the Mitiaro palm as new and name it here *Pritchardia mitiaroana*, reflecting its known distribution. If in the future it is shown to be conspecific with an already named but at present poorly understood taxon, then we hope, at least, that by describing and naming the Mitiaro palm we shall have helped to characterize it and draw attention to a beautiful palm, growing in one of the most remote parts of the world.

Photographs indicate that the palm is of considerable beauty and it is to be hoped that it can be introduced into cultivation and the wild population safeguarded against accidental damage from fire that could occur, if the island were ever to become a tourist attraction.

***Pritchardia mitiaroana* J. Dransf. & Ehrhart  
sp. nov. (Figs. 1–8)**

Fructu et rachillarum structura *P. pacificae* et *P. thurstonii* affinis sed a *P. pacifica* fructu multo minore et *P. thurstonii* inflorescentia a corona foliorum non exserta differt. Typus: Insulae Cook, Mitiaro, Ehrhart s.n. 26 April 1991 (Holotypus K; isotypus P).

Solitary, rather robust, stocky, pleonanthic hermaphroditic fan palm. Stem at maturity 4–6 m tall, slightly ventricose, widening to 30–35 cm diam. at 1.5 m above the ground, then tapering slightly to ca. 25 cm diam. at 2.5 m height, diameter then constant to the base of the crown, the stem surface grey brown, obscurely ringed with leaf scars, smooth or with irregular shallow vertical fissures in young palms or near the stem apex. Crown comprising 16–23 expanded leaves, one leaf three-quarters expanded, a sword leaf and two or more dying or dead leaves, juvenile palms (up to 3.5 m tall) with ca. 16 leaves, adult palms (up to 5 m tall) with 23 leaves, the leaves held stiffly; petiole 80–90 cm long, ca. 20 cm wide at the base, the base clasping the stem, tapering to 6 × 1.2 cm at ca. 50 cm above the base, tapering gradually to 3 × 1 cm at the insertion of the blade, the margins smooth, the surfaces somewhat waxy, glabrous; leaf base fibrous, terminating in a triangular ligule ca. 50 cm above the base, the fibres soft, pale grey brown; adaxial hastula bluntly triangular, 4 × 3 cm, ± symmetrical, abaxial hastula absent; leaf-blade bright green, briefly costapalmate, 100–110 cm long at the mid-point, held ± flat or folded into a shallow “m”, 52–56 folds in leaves of juvenile palms, 60–

66 folds in leaves of mature palms, the blade split to ca. 30 cm deep into stiff induplicate segments, the segments ca. 5.5 cm wide at the base of the splits, inter-segment fibers present in newly expanded leaves; adaxial surface of blade glabrous, abaxial surface covered in a thin layer of white wax and bearing abundant evenly distributed punctiform dark brown scales. Inflorescences solitary in each leaf axil, shorter than and hence obscured by the leaves, branching to 3–4 orders, the inflorescence somewhat lax, not congested, 10–12 inflorescences and infructescences present at the same time (appearing one after the other during several months, with apparently no flowering during the cool season); peduncle ca. 60 cm long, flattened at the base where ca. 3 × 1.5 cm, distally elliptic in cross section, ca. 2.0 × 1.3 cm; prophyll ca. 22 × 5.5 cm, tubular, 2-keeled, tattering apically, densely white tomentose; peduncular bracts 5–6, up to ca. 40 × 4 cm, tattering as the prophyll and bearing white tomentum; inflorescence rachis somewhat zig-zag; rachillae numerous but scarcely crowded, pale yellowish-green, straight or somewhat curved, up to 10 cm long, ca. 2 mm diam., glabrous, bearing solitary flowers ca. 4 mm apart, each subtended by a fragile brown ligulate acuminate membranous rachilla bract, ca. 1.7 × 0.1 mm; flower scar ca. 0.7 mm diam. Flower bud 6.5 × 2.8 mm; calyx with a basal tube, 3.5 mm long, with three short triangular lobes to 0.5 mm long, glabrous, faintly striate; corolla tubular below, circumscissile just below the mouth of the calyx tube, the lobes accrescent, ca. 4 × 2 mm, striate, glabrous, the inner surface marked with anther impressions; stamens 6, filaments united in an epipetalous ring ca. 1.6 mm high, with free filaments to 1.5 mm; anthers medifixed, versatile, ± oblong, 2.5 × 1 mm introrse; gynoeceum with 3 carpels free in the wedge-shaped ovarian portion to 2 × 1 mm, apically connate in a style to 2 × 0.8 mm. Fruit rounded, to 7 mm diam., borne on the persistent calyx, the calyx lobes and androecial ring explanate; style and carpel remains excentrically apical; epicarp smooth, glabrous, green becoming brown; mesocarp ca. 0.6 mm thick; endocarp crustaceous, ca. 0.1 mm thick. Seed basally attached, ca. 5.5 mm diam., testa very thin, brown; endosperm homogeneous, embryo subbasal.

*Distribution.* Cook Islands, Mitiaro.

*Specimens Examined.* COOK ISLANDS. Mitiaro: Takaue Village, 2 to 2.5 km south of village, alt. 11 m, Yves Ehrhart s.n. 26 April 1991



1. *Pritchardia mitiaroana*: the main population on Mitiaro, Cook Islands. 2. *Pritchardia mitiaroana*: view into the crown.  
(Photographs by Yves Ehrhart.)





3. *Pritchardia mitiaroana*: group of palms in makatea scrub. 4. *Pritchardia mitiaroana*: young leaf. 5. *Pritchardia mitiaroana*: detail of trunk of adult palm. 6. *Pritchardia mitiaroana*: detail of another adult trunk, showing cracking of trunk surface. (Photographs by Yves Ehrhart.)





7. *Pritchardia mitiaroana*: detail of young infructescence. 8. *Pritchardia mitiaroana*: part of infructescence. (Photographs by Yves Ehrhart.)

(Holotype K; isotype P); 28 July 1991 *Luttrell* 126 (K).

*Pritchardia mitiarioana* occurs in several small groups and isolated trees scattered on the western and southwestern side of the island, in the inner *makatea* (*makatea* is the Polynesian name for the soils and geographic areas located on raised coral limestone reefs). No single plant species predominates in any area. The vegetation is low scrub, about 3 m tall, consisting mainly of *Guettarda speciosa*, *Pandanus tectorius*, *Pisonia grandis*, *Xylosma gracile*, *Capparis cordifolia*, *Timonius polygamus*, *Myrsine cheesemanii*, *Geniostoma sykesii*, *Ixora bracteata* and *Cassytha filiformis*. The soils (Wilde 1981) have formed from the *makatea* limestone rock *in situ* and from rock fragments. There is little sand, and very little organic matter accumulates between the rock fragments. It is very sharply drained. According to USDA Soil Taxonomy, it is a sandy-skeletal carbonatic isohyperthermic lithic Rendoll. Climatic data are scarce but data from the neighboring island suggest that the mean annual rainfall is about 2,000 mm distributed throughout the year, the driest months being June to August and the wettest December to February. Temperatures range from 21.5° C to 26.9° C with the coldest

months being the driest. Mean relative humidity is about 85%.

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