

## A New *Ervatamia* (Apocynaceae) from Makatea Island, Tuamotu Archipelago Pacific Plant Studies 23<sup>1</sup>

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THE TUAMOTU ARCHIPELAGO contains 78 islands which lie in a broad band extending over 15 degrees of longitude in the South Pacific Ocean. All are coral islands, and nearly all are low atolls. Only a few have been somewhat elevated. Anaa and Niau have areas of coral rock slightly raised and subsequently dissected, providing a different habitat from that of the usual atoll. Makatea Island, however, is outstanding, having been elevated to an altitude of 372 feet, and it is about 5 miles by 3 miles. The top is rather flat, and the sides are sheer cliffs, but below them on the northwest and the southeast sides there are narrow low shores and sandy beaches. The top supported a native forest, and some of this remains, though surface mining for phosphate since 1900 has destroyed much of it.

Knowledge of the flora comes wholly from the collections by Gerrit Parmile Wilder who made a lengthy exploration of the island in 1932 and published upon it (Wilder 1934).

The atolls of this archipelago each have a native flora of 10 to 30 wide-ranging species. Makatea, with its elevated land and sweet soils, has 65 native species, besides 138 adventive and ornamental species. Nearly all of the indigenous species are also widely distributed. To the present only one, the handsome palm tree *Pritchardia Vuytlstekeana* H. Wendl, is known to be endemic to the island. The following descriptive account adds a second endemic to the island flora.

This species was determined by Wilder (1934: 40) as *Tabernaemontana orientalis* R. Br. It is now recognized as distinct, and is given a new generic placement.

### *Ervatamia makateaensis* sp. nov.

Fig. 1

NOM. VERN.: "faiate" (Tuamotan lang.).

DIAGNOSIS HOLOTYPE: Frutex 2-2.6 m altus divergens est, ramis cum suco viscoso albo, ramulis 2-5 mm diametro glabris primo subrubris nuper pallide badiis et cum lenticellis pallidis grandibus paucis, internodis 25-30 mm longis, foliis oppositis inaequalibus uno jugi utriusque  $\frac{1}{2}$ - $\frac{3}{4}$  tam grandi quam altero, petiolis 22-28 mm longis gracilibus glabris subrubris, laminis 6-14.3 cm longis 4.1-8.2 cm latis subtiliter chartaceis fere membranaceis viridibus sed reticulo venularum rubro late ellipticis integris apice subite acuto basi subacuto laminis majoribus in latere quoque cum 13-15 nervis secundariis lateralibus subadscendentibus tum proxima marginem sursum curvatis et interconnectis, cymis 2 in nodo glabro 9-14 cm longo, pedunculo 3-7 cm longo cernuo; pedicellis 3.5-4.3 cm longis filiformibus adscendentibus in cyma quaque solum 1-2 persistenti et fructifera alteris caducis (floribus incognitis), sepalis in fructu 1.5-2 mm longis lanci-ovatis intra ad basim cum glandulis minutis, mericarpis in fructu 18-21 mm longis 9-11 mm latis 6-7 mm crassis lunati-ellipsoideis et in latere proximali cum costis binis, stylo 4-5 mm longo rostrato curvato, seminibus 7 et 7 mm longis 5 mm latis 3-3.5 mm crassis obovoideis imbricatis badiis rugulosis in 2 seriebus in carne subtili congregatis.

DIAGNOSIS OF HOLOTYPE: Shrub 2-2.6 m tall, spreading; stems with a sticky white sap; branchlets 2-5 mm in diameter, glabrous, at first reddish, later pale brown, with a few large pale lenticels; internodes 25-30 mm long; leaves opposite, unequal, one of each pair from  $\frac{1}{2}$ - $\frac{3}{4}$  as large as its mate; petioles 22-28 mm long, slender, glabrous, reddish; blades 6-14.3

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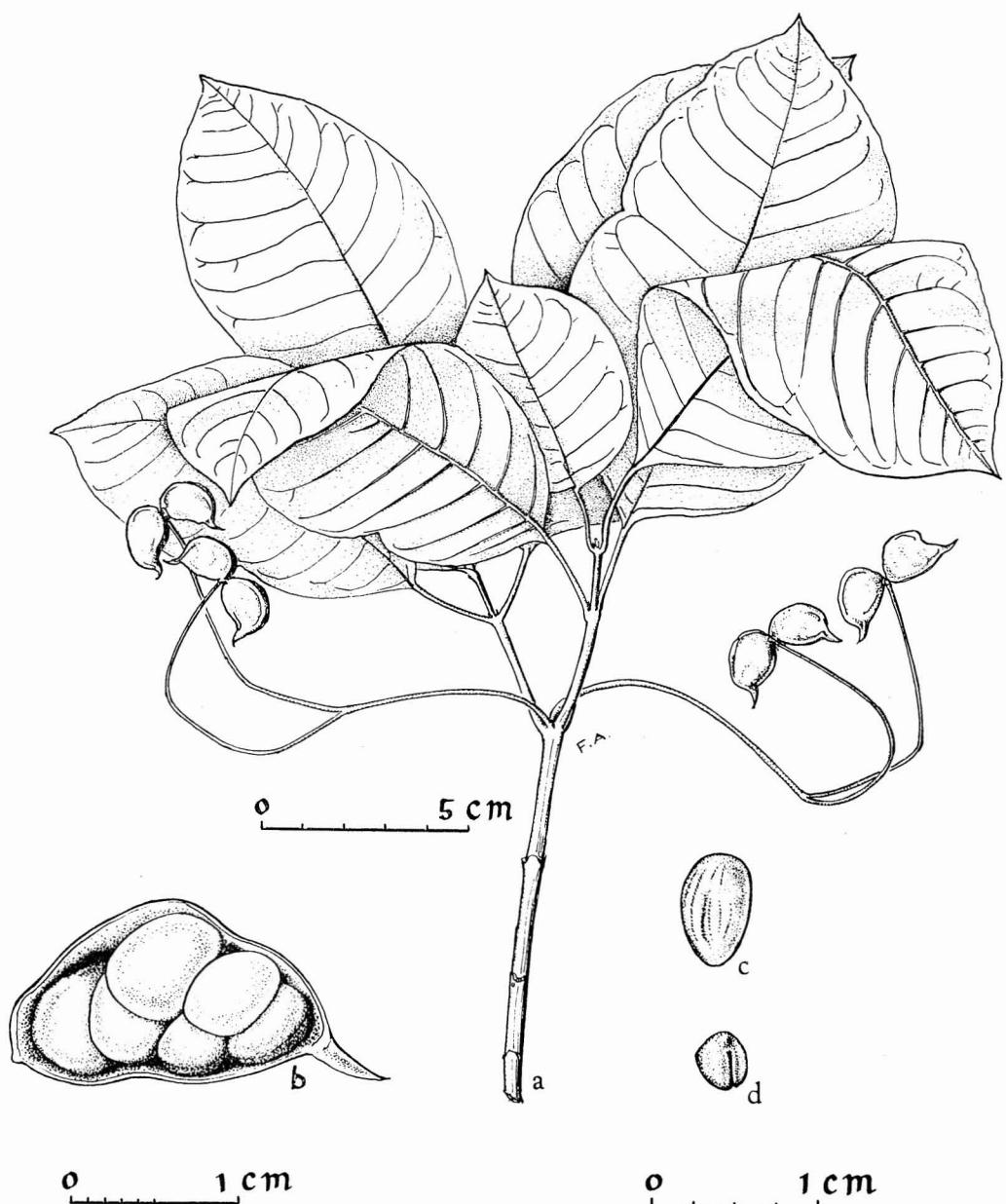


FIG. 1. *Ervatamia makateensis* St. John, from holotype. *a*, habit,  $\times \frac{1}{2}$ ; *b*, half of mericarp, with seeds,  $\times 2$ ; *c*, seed, lateral view,  $\times 2$ , *d*, seed, apical view,  $\times 2$ .

cm long, 4.1–8.2 cm wide, thin chartaceous, almost membranous, green, but the prominent vein network red, broadly elliptic, entire, the apex abruptly acute, the base subacute, the larger blades with 13–15 lateral veins on each

side, these gently ascending, but near the margin upcurved and inarched interconnecting; cymes 2 at a node, glabrous, 9–14 cm long; peduncle 3–7 cm long, cernuous; pedicels 3.5–4.3 cm long, filiform, ascending, only 1–2

in each cyme persisting and setting fruit, the others caducous (flowers unknown); fruiting sepals 1.5–2 mm long, lance-ovate, the minute glands attached on their inner side above the base; fruiting mericarps 18–21 mm long, 9–11 mm wide, 6–7 mm thick, lunate-ellipsoid, with 2 ribs on the proximal side, the style 4–5 mm long, rostrate, curving; the 7 seeds 7 mm long, 5 mm wide, 3–3.5 mm thick, obovoid, imbricate, brown, rugulose, crowded in 2 rows in a thin pulp; the hilum a crack nearly as long as the seed.

HOLOTYPE: Polynesia, Tuamotu Archipelago, Makatea Island, rare, seen only in the forest near the *Eupritchardia* palms, 200 ft. alt., Oct. 27, 1932, Gerrit P. Wilder 1,203 (BISH).

DISCUSSION: The closest relative of *E. makateaensis* is *E. obtusiuscula* Mg., the type of which was from Samoa, a species with the cymes 3.5–7.5 cm long; peduncle 0.5–3.5 cm

long; pedicels 0.8–3 cm long; sepals ovate, sparsely capitate glandular without; stylar beak of fruit 2–3 mm long; mericarps capitate glandular; petioles 9–17 mm long; blades 2.5–7 cm wide, elliptic or lanceolate, the veins green and not prominent. *E. makateaensis* has the cymes 9–14 cm long; peduncle 3–7 cm long; pedicels 3.5–4.3 cm long; sepals lance-ovate, glabrous without; stylar beak of fruit 4–5 mm long; mericarps glabrous; petioles 22–28 mm long; blades 4.1–8.2 cm wide, broadly elliptic, the veins red and conspicuous.

The new epithet is formed from the name of the type locality, Makatea, and *-ensis*, the Latin adjectival geographic ending.

#### LITERATURE CITED

- WILDER, GERRIT PARMILE. 1934. The flora of Makatea. Bull. Bishop Mus. 120: 1–49, fig. 1, pl. 1–5.