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New Species of Hawaiian Peperomias

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In 1939, I studied a number of specimens of *Peperomia* collected in the Hawaiian Islands by Dr. Carl Skottsberg, Miss Lucy M. Cranwell, and Dr. O. H. Selling. Among them were three which I then considered new to science and to which I gave provisional names. Conditions at the time prevented the preparation of formal descriptions for these new species and because of circumstances caused by the war they were forgotten. In 1944, Skottsberg published part 4 of his "Studies of the Hawaiian vascular plants" which included the genus *Peperomia*, and the three proposed new species were included in this paper without descriptions. Recently, I have restudied the type specimens in Bernice P. Bishop Museum and now believe that two of the specimens represent new species, descriptions of which are herewith presented. The third, however, is referred to one previously described.

Peperomia waipioana, new species (fig. 1).

Peperomia waipioana Yuncker, in Skottsberg in Meddelanden från Göteborgs Botaniska Trädgård 15: 347, 1944, *nomen nudum*.

Herba terrestris repens assurgens ramosa; caule glabro; foliis oppositis vel verticillatis, ovato- vel lanceolato-ellipticis, utrinque acutis, 5-nerviis, supra ad basem dissite pubescentibus, subtus glabratis; petiolo 3-5 mm. longo; spicis terminalibus vel axillaribus; ovario obovoideo, stigmatе apicali (?).

A repent-assurgent, terrestrial herb; stem 3-4 mm. thick, ascending to 25 cm. from the decumbent, rooting base, branching toward the top, glabrous, drying slightly glossy, wrinkled, internodes 4-5 cm. long below, shorter upward; leaves opposite or whorled, ovate- or lance-elliptic, 1-1.4 cm. wide \times 2.5-3.5 cm. long, apex and base acute, 5-nerved, the outermost pair of lateral nerves slender and indistinct, the innermost pair coalescing with the midrib within the lowermost 2-3 mm., sparsely pilose along the midrib near the base above, glabrous, paler, and yellow glandular-dotted beneath, margin membranous, sparingly ciliate near the apex, drying firm, translucent, pellucid-dotted; petiole 3-5 mm. long on upper

leaves, grooved above; spikes terminal and from the upper axils, 2 mm. thick \times 7-8 cm. long, loosely flowered; peduncle 1-1.5 cm. long, glabrous; bracts round-peltate; ovary obovoid, stigma apical (?).

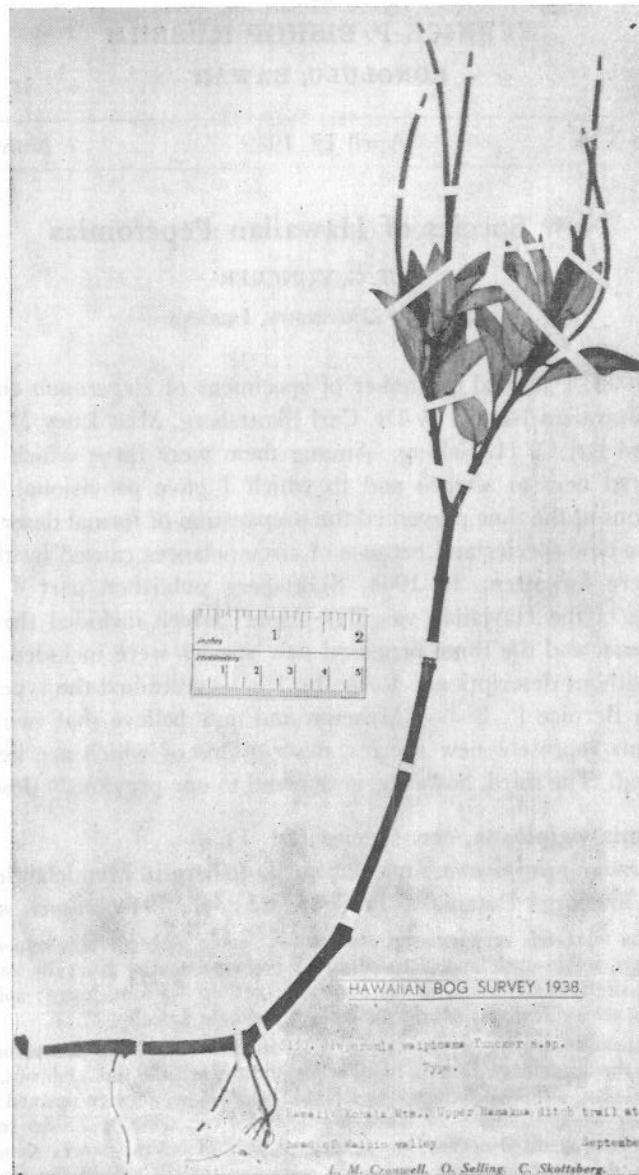


FIGURE 1.—*Peperomia waiipioana*, type specimen.

Type locality: Waipio Valley, Kohala Mts., Island of Hawaii.

Island of Hawaii: Kohala Mts., upper Hamakua ditch trail at head of Waipio Valley, Sept. 7, 1938, *Cranwell, Selling, and Skottsberg 3130* (type in Bishop Museum).

Distribution: known only from type locality.

This specimen most closely resembles *P. Hesperomannii* of Kauai but differs because of its smaller, less strongly plinerved leaves with acute rather than cuneate bases, shorter petioles, and mostly longer and stouter spikes. The leaves are also sparingly hairy on the upper surface.

***Peperomia Cranwelliae*, new species (fig. 2).**

Peperomia Cranwelliae Yuncker, in Skottsberg in Meddelanden från Göteborgs Botaniska Trädgård 15:347, 1944, *nomen nudum*.

Herba parva stolonifero-assurgens; caule supra dissite villosa; foliis congestis, plerumque 3-verticillatis, obovatis, apice abrupte acutisve, basi acutis ad cuneatis, obscure palmatis 3-5-nerviis, utrinque glabris vel supra basem versus dissite pubescentibus, apicem versus ciliatis, margine revoluta, spicis terminalibus (?); ovario obovoideo, stigmatibus apicali.

A small, stoloniferous-assurgent herb; stem 3-4 mm. thick, ascending to 10 cm. from the decumbent rooting base, sparsely villous above, the hairs mostly more than 0.5 mm. long, glabrescent downward, internodes 3 cm. long below, much shorter upward; leaves congested, commonly 3 at a node, obovate, 8-12 mm. wide \times 12-20 mm. long, apex abruptly acutish, base acute to cuneate, obscurely palmately 3-5 nerved, the midrib faintly branched upward, glabrous on both sides or with a few hairs above near base, marginally ciliate toward apex, drying firm, subopaque, margin narrowly revolute, strongly yellow glandular-dotted on both sides; petioles mostly 3-5 mm. long, glabrous, grooved above; spikes, as represented, terminal (?), 2 mm. thick \times 2 cm. long, moderately flowered; peduncle about as long as the petioles, glabrous; bracts round-peltate, glandular-dotted, ovary obovoid, stigma terminal; fruit ellipsoidal or obovoid, about 1.2 mm. long, stigma slightly subapical.

Type locality: Kohala Mts., Island of Hawaii.

Island of Hawaii: Kohala Mts., upper Hamakua ditch trail between Koiawe and Alakahi Valleys, Sept. 8, 1938, *Cranwell, Selling, and Skottsberg 3174* (type in Bishop Museum).

Distribution: known only from type locality.

This species bears some resemblance to *P. cekana* of Maui, especially in the shape of the leaves. That species, however, is usually a much larger, hirsute plant with longer internodes and more coriaceous leaves. Only a single young spike without mature fruit is present on the type specimen. The fruits described were found loose and adhering to the leaves. There is some question, therefore, whether they belong to this species.

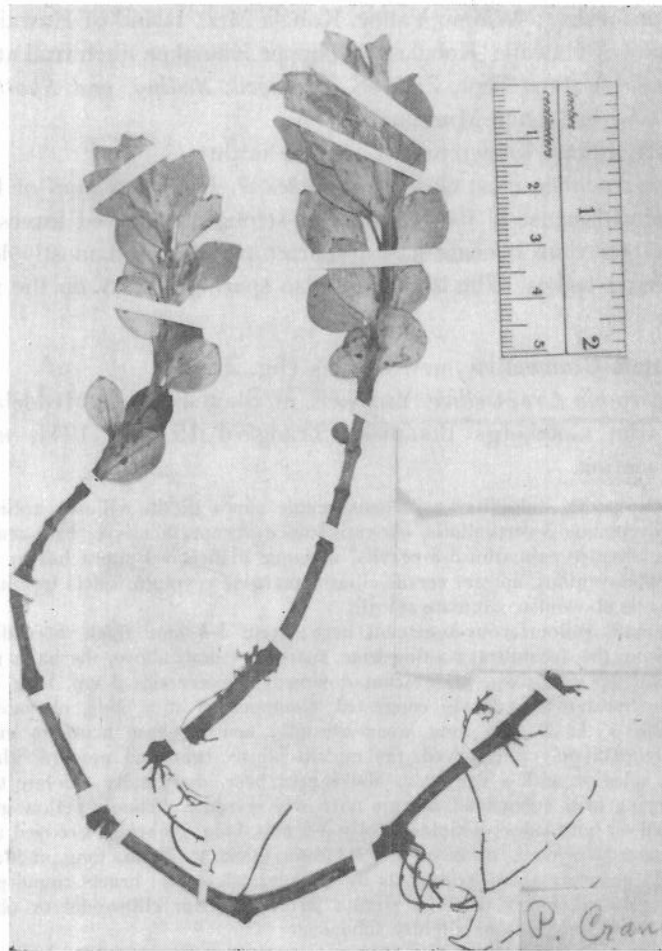


FIGURE 2.—*Peperomia Cranwelliae*, type specimen.

Peperomia Treleasei Yuncker, B. P. Bishop Mus., Bull. 112:46, fig. 11, 1933.

Peperomia Selligii Yuncker, in Skottsberg in Meddelanden från Göteborgs Botaniska Trädgård 15:347, 1944, *nomen nudum*.

Maui: Ravine near Haelaau, West Maui, Aug. 2, 1938, *Selling and Skottsberg 2791* (Bishop Museum).

When first studied it was thought that this specimen represented a new species and it was given the provisional herbarium name of *P. Selligii*. It is now believed, however, to be the same as *P. Treleasei* formerly known only from the southeastern part of Molokai, which is separated from western Maui by the relatively narrow Pailolo Channel.