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A New *Trichosanthes* (Cucurbitaceae) from Palau

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Among the unnamed residue of the Micronesian collections made in 1936 by Masahiku Takamatsu was a cucurbit from the limestone islands in southern Palau. It was immediately apparent that it did not belong to any of the genera hitherto reported from Palau. The material was only in bud, but the characteristic bracteate staminate racemes suggested the genus *Trichosanthes* L., widespread in eastern and southern Asia and Malaysia. The specimen could not be matched in the National Herbarium or in that of the New York Botanical Garden, but seemed close to *T. kirilowii* of China. In the keys in the monograph of the Cucurbitaceae by Cogniaux (C. De Candolle, Monogr. Phan., vol. 3, 1881) it ran to *Trichosanthes kirilowii* Maxim. but did not check well, either with the description or with a fair series of named material. It was obvious that the specimen represented an undescribed species which is here described and dedicated to Professor Takahide Hosokawa, whose explorations and researches have contributed extensively to our knowledge of the botany of Micronesia.

I wish to thank Marie C. Neal, curator of the Bishop Museum herbarium, for permission to study this material and for kindly loaning it to me.

***Trichosanthes hosokawae*, n. sp.**

Planta monoica, folia trilobata, cirrhi non ramosi, flores masculi racemosi racemis bracteatis bracteis obovatis valde dentatis, flores femini solitarii pedicellati ebracteati, ovario decem lineato lineis hirtellis; fructus late fusiformis decem sulcatus, semina oblonga compressa 6 mm. longa 3.5 mm. lata, ruguloso incrassata.

Slender, monoecious vine, stems when dry 1-1.5 mm. thick, sulcate, somewhat scabrous, sparsely hirtellous, internodes about 6-9 cm. long; leaves broadly ovate-

cordate, deeply and somewhat variably trilobed, sinuses rounded, the basal sinus broadly rounded, blades 5-7 cm. long, 4-5 cm. wide, or smaller, terminal lobe about twice the length of the lateral ones, lanceolate or ovate-lanceolate, acute, lateral lobes obtuse, very oblique, basal portion extended downward, rounded margins of lobes sinuate and with remote, small, sharp, cusplike teeth, nerves impressed and glabrous above, raised and hispidulous beneath, both surfaces of blade sparsely beset with short hairs with enlarged pustulate bases, surfaces scabrous to touch, petiole 3-6.5 cm. long, somewhat scabrous; tendrils oppositifolious, elongate, unbranched, very sparsely hirtellous; staminate flowers in racemes up to 10 cm. or more long, with about eight flowers subtended by foliaceous bracts, these and rachis finely and softly villous, bracts about 1 cm. long, obovate-spatulate, more or less gibbous and boat-shaped, with five (or seven?) sharply triangular or triangular-lanceolate teeth on distal portion, the central one much the longest; pedicels about 1.5 mm. long, in axils of bracts, only buds of staminate flowers available, sepals lanceolate or linear-lanceolate, corolla externally densely scurfy, flowers apparently very soon caducous, as both buds and empty bracts are present on same rachis; pistillate flowers solitary in leaf axils, ebracteate, on elongate almost glabrous pedicels up to 7 cm. long, swollen somewhat in apical portion; hypanthium (inferior ovary) narrowly fusiform, with 10 longitudinal lines of hairs; sepals linear-lanceolate, unequal, up to 4 mm. long in almost mature bud; petals in almost open bud somewhat scurfy without; fruit broadly ellipsoid, 3 cm. long including a cylindrical beak 5 mm. long, with 10 longitudinal ridges or sulci, dehiscence apparently by disintegration at base, surface glabrate; seeds dull brown, oblong, about 6 mm. long, 3.5 mm. wide, compressed laterally, with a thickened rugulose central area on each side, bordered on the somewhat broader distal end by a U-shaped, scarlike mark, the edges very blunt or flattened, toward distal end on either side broadened into the scarlike mark, actual scar a small, narrowly elliptic-lanceolate groove on basal end.

Caroline Islands: Palau Islands, Olophacal [Aulupse'el, or Aulup-tagal] Island, May 6, 1936, *M. Takamatsu 1451* (BISHOP, type; US, isotype).

This plant seems closest to *Trichosanthes kirilowii* Maxim., from which it differs in the much greater degree of hairiness and scabrosity, in the unbranched tendrils, in the narrower and smaller staminate inflorescence bracts, in the lines of hair on the ovary, in the longitudinal ridges or sulci on the much smaller fruit, and in the seeds being only a fraction as large. *T. kirilowii* is considered dioecious by Cogniaux, but if material so named in the National Herbarium—for example, *Chiao 14365, Beach 159*—is correctly identified it may also be monoecious. *T. kirilowii* was described from Mongolia, and is found on the mainland of eastern Asia and perhaps on Formosa. However, the material referred to this species in herbaria is so varied that doubtless more than one species are represented.

The lines of hair on the ovary and the sulcate fruit seem not to be matched in the genus, though there is sometimes a suggestion of ridges on the fruits of *T. cucumerina* and *T. cucumeroides*.

This is the first member of the genus *Trichosanthes* to be described or reported from the Pacific east of the large islands running from Japan to New Guinea and Australia, although Wong collected a sterile specimen (no. 297) on Ulalu, Truk, which Merrill determined as possibly *Trichosanthes* and which is probably the widely distributed medicinal *T. cucumerina* L. Incidentally, it is said to be used medicinally by the Trukese. Neither native name nor use is recorded for *T. hosokawae*.

The two Micronesian species may be distinguished as follows:

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| Plant glabrous, tendrils trifid, bracts of the staminate raceme small and inconspicuous | T. cucumerina |
| Plant scabrous, tendrils unbranched, bracts about 1 cm. long, conspicuous | T. hosokawae |