

A *Nesogenes* (Chloanthaceae) from Micronesia

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and

DERRAL HERBST

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Abstract—*Nesogenes rotensis* (Chloanthaceae) is described as new, from the island of Rota, Marianas, extending the distribution of *Nesogenes* DC. from East Africa, Madagascar and the western Indian Ocean islands and southeastern Polynesia to Micronesia. The recently described family Nesogenaceae is regarded as belonging to the Chloanthaceae, a principally Australian family.

Among collections made by Herbst and M. V. C. Falanruw in April 1982 on Rota Island, just north of Guam in the Marianas, is a plant previously unknown from Micronesia. It resembles several species of the genus *Nesogenes* DC., known to Fosberg from extreme eastern Polynesia and from the western Indian Ocean islands, but, until now, unreported from areas between. Comparison with material in the U. S. National Herbarium showed that it belongs in *Nesogenes* and differs no more from the known species in that genus than they do from each other.

Nesogenes has been long considered to belong to the Verbenaceae, but Fosberg and Renvoize (1980: 226–278) placed it in the Dicrostylidaceae (nom. illegit. = Chloanthaceae), an Australian family recognized by Airy Shaw (1966). Marais (1980) excludes all non-Australian genera from the Chloanthaceae, citing Munir (1979), and erects the monogeneric family Nesogenaceae to accommodate *Nesogenes*. Munir, in his several papers on the family, treats only the Australian members of it but says nothing about excluding the non-Australian genera. His only remark that we can find that even suggests that he has considered this question (Munir 1978: 435) refers to the distribution of Chloanthaceae “Endemic to Australia with the possible exception of the African genera *Acharitea* Benth. and *Nesogenes* DC.” His beautiful illustrations suggest to us that the Australian plants he studied are very closely related to *Nesogenes*. We see no reason for excluding *Nesogenes* from the Chloanthaceae. In fact, we do not see much reason for separation of the Chloanthaceae from the predominantly Australian family Myoporaceae. For the present, pending a broader familiarity with the Myoporaceae, we regard *Nesogenes* as belonging to the Chloanthaceae and consider the latter as a distinct family.

Nesogenes rotensis Fosberg & Herbst, n. sp.

Figs. 1-2

Planta herbacea, glanduloso-pubescentis hispida, distalis plus hispida, fere e basi florifera; foliis rhombicis vel ovatis, marginibus paucidentatis, brevipetiolatis; floribus axillaribus superpositis; calyce campanulato, lobato, glanduloso; corolla alba, infundibulari-campanulata, 8-8.5 mm longa; staminibus bijugatis inaequalibus, anthera loculis reflexis; nuce fusca, dura ossea, globosa vix compressa, distalis dense puberula, biloculari; semine in loculo solitario.

Herbaceous plant, several stems essentially terete, oppositely pseudodichotomously branching near base at about 5-7 nodes, subprostrate to ascending, scrambling over appressed shrubs, whole plants up to almost 1 m diameter, branches elongate and essentially unbranched, floriferous nearly from the base, conspicuously glandular-pubescent and hispid throughout, the glandular hairs more and more replaced by appressed or subappressed sharply pointed nonglandular ones distally, on young growth, and on leaf surfaces; leaves somewhat fleshy, opposite, exstipulate, blades 1-2 cm long by 1-1.5 cm wide, diminishing distally, rhombic to rhombic-ovate or ovate, with 1-4 coarse ovate obtuse to acutish teeth on a side, apical portion and basal cuneate portion without teeth, small leaves entire, apex acutish, sometimes with a minute glandular apiculus, cuneate base somewhat decurrent into a petiole 3-5 mm long, veins 1-3 on a side, more or less alternate, their branches free or somewhat anastomosing, network coarse, obscure or absent, both surfaces thinly appressed pubescent with short swollen-based, sharp-pointed hairs, toward leaf-base and on petiole mixed with very slender glandular-tipped hairs, as on stems; flowers axillary, shortly pedicellate, 1 or 2 superposed in each axil almost to base of branches, pedicel densely glandular pubescent, flowers in an axil not reaching anthesis simultaneously; calyx campanulate, 5.5-6 mm long, soon becoming somewhat larger and urceolate, 10-12 ribbed except when young, lobes half total length, triangular or slightly ovate and slightly acuminate, pubescent, hairs on both surfaces glandular especially in lower flowers, in the more distal flowers mostly non glandular and pointed, in some flowers almost entirely so; corolla white, 8-8.5 mm long, funnelform-campanulate, tube 2-2.5 mm, limb campanulate, 6-6.5 mm, very slightly glandular without, lobes 5, rounded-obtuse, 2 mm long and wide, very thinly membranous; stamens 2 pairs, shorter pair slightly over 1 mm, inserted 3 mm from base, longer pair 3 mm long, inserted 2.5 mm from base, anther with locules broadly ovate-oblong, reflexed, about 0.6-0.75 mm long, slightly unequal, apex rounded, abruptly shortly and sharply mucronate; style 5.5-6 mm long, filiform, glabrous, stigma punctiform to slightly capitate, ovary globose, on a short (0.5 mm) fleshy gynophore which becomes filiform when dry; fruit densely puberulent in distal half, pubescence easily rubbed off, globose to slightly subglobose, 2 x 2 mm, slightly compressed, very slightly emarginate, indurate, endocarp very hard, dark brown on surface, thick and bony, cells 2, slightly swollen, with 1 seed in each, tightly filling cell.

Nesogenes rotensis apparently is endemic in Rota, Mariana Islands, and known only from a single collection from Haaniya Point, Palie area, on exposed dry raised



Fig. 1. *Nesogenes rotensis* Fosberg & Herbst, new species. a, habit $\times 0.5$. b, branch with flowers $\times 1$. c, surface of stem $\times 25$.

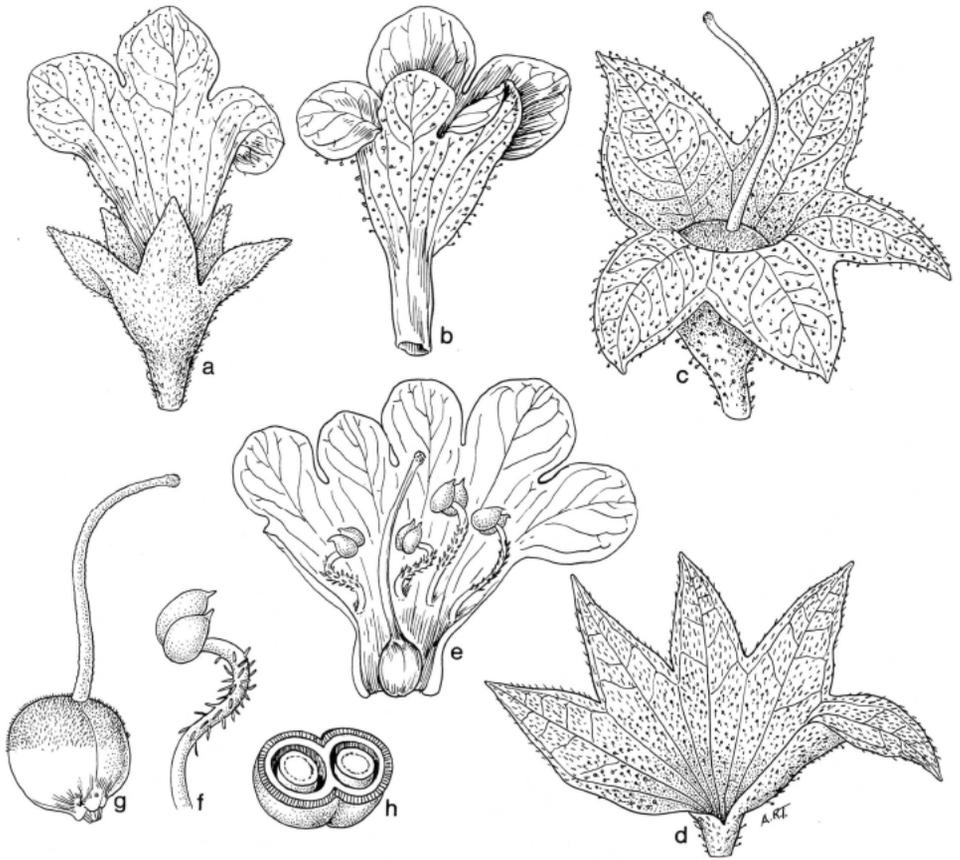


Fig. 2. *Nesogenes rotensis* details. a, flower with calyx $\times 4.5$. b, corolla $\times 4.5$. c, calyx with pistil, lower flower $\times 6$. d, open calyx, distal flower $\times 6$. e, open corolla and enclosed parts $\times 4.5$. f, stamen $\times 12.5$. g, pistil $\times 6$. h, transverse section of fruit $\times 6$.

limestone, at 100 m elevation. The collection was made on 23 April 1982 by *Herbst and Falanruw 6736* (US, holotype, BISH, GUAM, isotypes). It was growing in association with *Scaevola sericea*, *Terminalia samoensis*, *Hedyotis strigulosa*, *Pogonatherum paniceum* and *Bikkia tetrandra*.

This species represents a remarkable extension of the range of this genus which is otherwise known from southeastern Polynesia, certain western Indian Ocean islands, Madagascar and Tanzania. It is possibly closest to *N. africanus* Taylor, from which it differs in wider, shorter leaves, slight differences in flower size and proportions, much more oblong and more abruptly pointed anthers, only the distal half of the fruit puberulent, fruit more truncate apically, very hard and brown, slightly compressed. All species in this genus seem closely related.

This genus has been recently revised and placed in a separate family by Marais (1980). As noted above, we do not see the necessity for separating it as a family.

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