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A NEW SPECIES OF DIMORPHANTHERA FROM SERAM

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ABSTRACT. *Dimorphanthera seramica* Argent & Warwick, *sp. nov.* (Ericaceae) is described from Seram, Indonesia.

Dimorphanthera seramica Argent & Warwick, **sp. nov.** Figs 1–2.

D. amoenae Sleum. similis sed corollis minoribus et staminibus brevioribus praecipue differt. Frutex epiphyticus usque ad 4m altus. *Ramunculi* teretes, juventute dense albo- vel pallide fusco-tomentosi, postea glabrescentes. *Folia* alterna, elliptica, aliquando ovato-elliptica vel obovato-elliptica; apex apiculatus ad longe attenuatus, acuminatus; basis late cuneata, rotundata usque subcordata, ad marginem pare glandularum atrarum a petiolo 1–2mm distante provisa; lamina 8–19 × 2–7cm, subcoriacea, 3–5-nervata, pilis fuscis subadpressis glandulosis utrinque laxe tecta, venis etiam apprime abaxialiter pilis ± erectis albis densius tectis, costa proximaliter utrinque elevata, distaliter (necnon venae principales laterales) supra elevata sed infra impressa; reticulum laxum, abaxialiter tantum distinctum; margo integer, sine pilis glandulosis sed distincte revolutus; petiolus 4–10 × 1.5–3mm, tomentosus. *Racemi* ex axillis et foliatis et defoliatis in ramunculis veterioribus orti, laxe 10–15-flori; rhachis 4–7cm, dense tomentosa; pedicelli 5–8mm, distaliter dilatati, tomentosi, pare bracteolarum acuminatarum ad basin inserta, hae bracteolae 4–6mm, dimidium inferius pedicelli vaginantes. *Flos* 26 × 9mm. *Tubus calycis* 2.5 × 5mm, limbus 1.5mm, lobi late deltoidei ad rotundati, 1 × 3–4mm, acumine lato, glandula apicali distincta nulla; calyx totus pilis brevibus semi-erectis albidis densis et glandulosis fuscis paucis tectus. *Corolla* alba, 22 × 9mm, cylindrica, extus leviter verrucosa, pilosa, intus laevis, glabra; lobi 2 × 4mm, reflexi. *Stamina* 10; *maiora* 10mm, filamenta (a base antherae mensa) 1.75mm, in parte superiore pilosa, ad basin glabra, antherae connectivo piloso incluso 7mm longae, connectivo ultra tubulos 1.5mm protruso; cellulae c.4mm longae, basin versus granulari-echinulatae, tubuli c.3mm longi, leviter divergentes; *minora* 6.5mm longa, filamenta 1.5mm, in parte superiore pilosa; antherae 5mm longae, connectivo piloso c.dimidium tantum longitudinis tubulorum attingenti; cellulae c.2.5mm, basin versus granular-echinulatae et ad basin umbone distincto centripetali piloso; tubuli 2.5mm, haud divergentes. *Discus* pilis brevibus erectis tectus. *Stylus* glaber, 23 × 0.75mm, stigma versus aliquot expansus. *Fructus* non visus.

Epiphytic shrub to c.4m. Twigs terete, densely white to pale brownish-tomentose when young becoming glabrescent. Leaves alternate, elliptic, occasionally ovate-elliptic or obovate-elliptic; apex apiculate to long attenuate, acutely pointed; base broadly cuneate, rounded to sub-cordate with a pair of dark glands on the margin 1–2mm away from the petiole; lamina subcoriaceous, laxly covered in brown subappressed glandular hairs both above and below, the veins also more densely covered with more or less erect white hairs, especially abaxially, 8–19 × 2–7cm, 3–5 pli-nerved, the midrib raised both above and below proximally, raised below and impressed above distally as are the major lateral veins, reticulation lax, distinct only abaxially; margin entire, without glandular hairs but distinctly revolute; petiole tomentose, 4–10 × 1.5–3mm. Racemes on the older twigs from both foliate and defoliate axils, laxly 10–15-flowered; rhachis 4–7cm, densely tomentose; pedicels 5–8mm, broadening distally, tomentose, with a pair of acutely pointed bracteoles inserted near the base, these 4–6mm, ensheathing the lower half of the pedicel. Flowers 26 × 9mm. Calyx tube 2.5 × 5mm; limb 1.5mm; lobes broadly deltoid to rounded, 1 × 3–4mm, with a broad point and no distinct apical gland; whole calyx rather densely covered in short semi-erect, whitish hairs and a few brown glandular hairs. Corolla white, 22 × 9mm, cylindric, hairy from a slightly verrucose surface outside, glabrous and smooth inside; lobes 2 × 4mm, reflexed

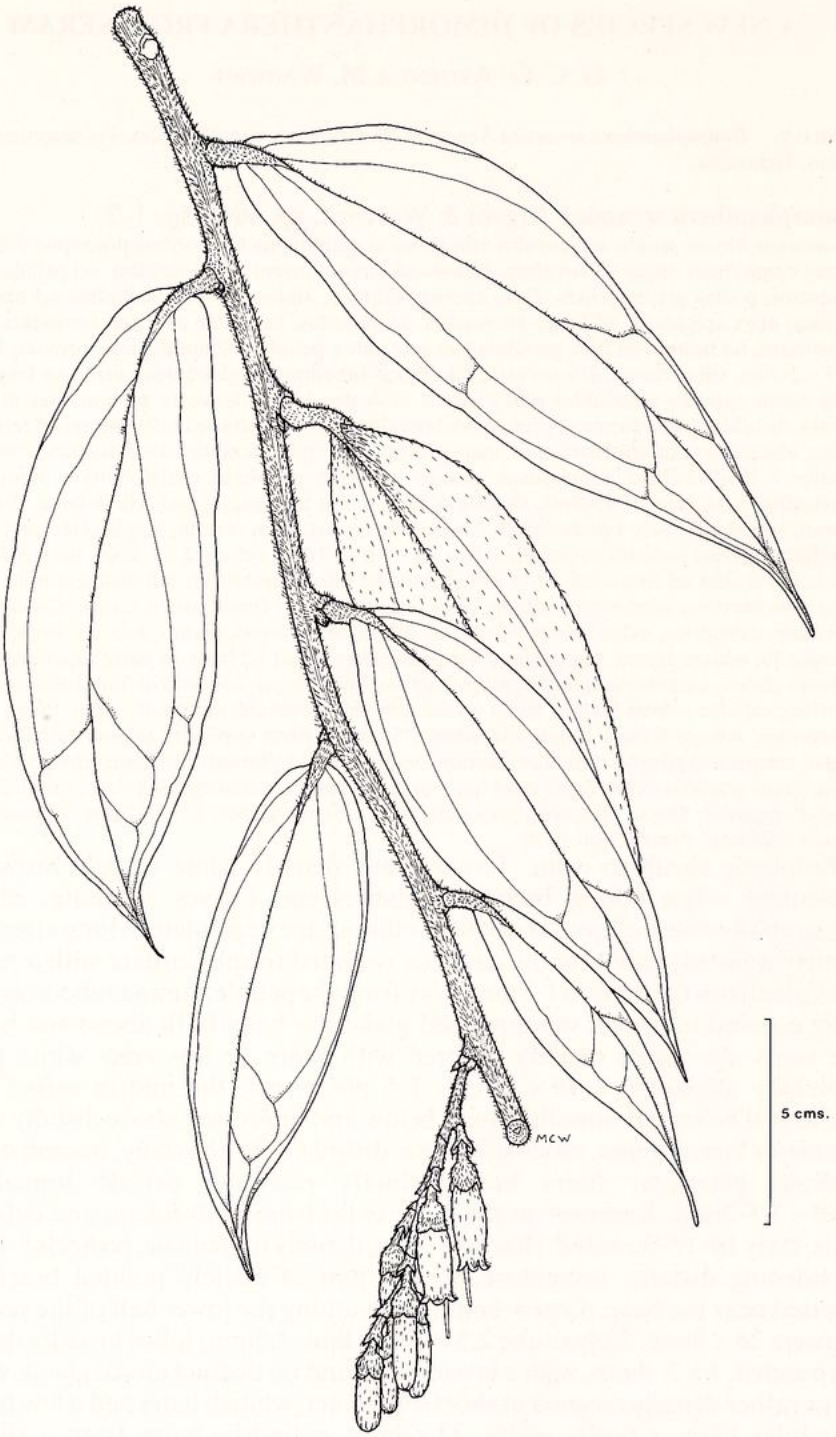

FIG. 1. *Dimorphanthera seramica:* habit.

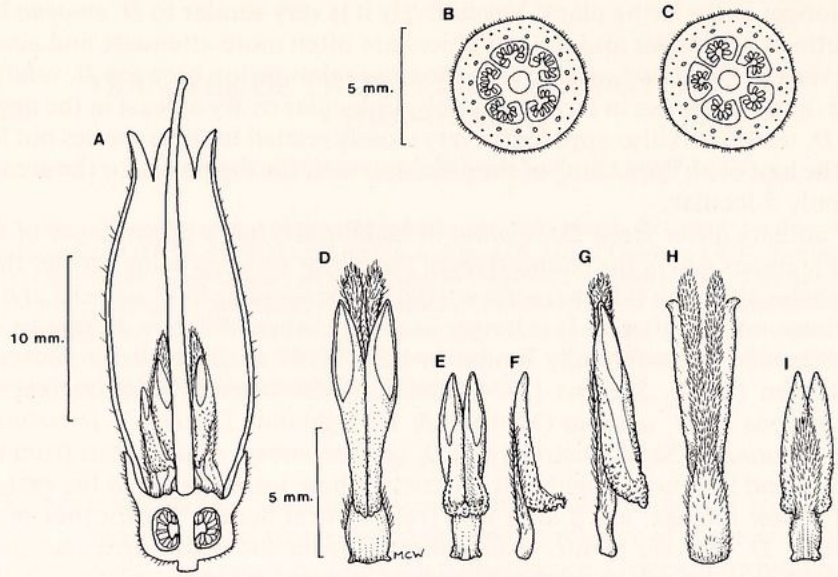

FIG. 2. *Dimorphanthera seramica*. A, half flower; B, T.S. ovary distal region; C, T.S. ovary middle region; D, major stamen front view; E, minor stamen front view; F, minor stamen side view; G, major stamen side view; H, major stamen back view; I, minor stamen back view.

outwards. Stamens 10; the major 10mm, filaments (measured from the base of the anther) 1.75mm, hairy in the upper part, glabrous at the base; anthers 7mm excluding the hairy connective which protrudes beyond the tubules for 1.5mm; cells c.4mm long, granular echinulate towards the base, tubules c.3mm, slightly divergent; the minor 6.5mm, filaments 1.5mm, hairy in the upper part; anthers 5mm, the hairy connective only reaching about half the length of the tubules; cells c.2.5mm, granular echinulate towards the base and with a distinct centripetal hairy boss at the base; tubules 2.5mm, not divergent. Disk: with short erect hairs. Style: glabrous, 23×0.75mm, somewhat expanded at the stigma. Fruit not seen.

Type: Indonesia, Seram, Manusela National Park on the north side of Gunung Binaia, 2000m, 30 viii 1987, *G. Argent* C87105 (holo. BOG, iso. E).

Distribution: Seram, known only from the type collection.

Ecology. *Dimorphanthera seramica* was collected from submontane mossy forest on limestone at an altitude of 2000m. It was a large epiphytic shrub growing in the crown of a substantial tree which had recently fallen. The *Dimorphanthera* was fortunately still in a sufficiently light position to continue growing and had abundant flower buds but very few open flowers. Although all flowers and buds seen were white it is quite likely that these would turn pink with age as happens in many other white-flowered species.

This species is typical of Section *Trochilanthe* Schltr. having the smooth calyx tube and cylindrical corolla with short lobes. It keys out in Sleumer (1967) to *D. amoena* Sleum. except that it has much smaller stamens (10 and 6.5mm) compared with the 13–16 and 10–12mm quoted. It also has a very much smaller corolla 22mm long (pickled), compared with the 30–40mm quoted by Sleumer which are probably taken only from dried material and this should be

even longer in the living plant. Vegetatively it is very similar to *D. amoena* but the petioles are longer and the leaf apices are often more attenuate and acute.

Stevens (1974) draws attention to the close relationship between *D. velutina* Schltr. and *D. amoena* in having a falsely 10-locular ovary at least in the upper part. *D. seramica* is also apparently very closely related to these species but has only the hint of an impushing of the placentas near the top and is for the greater part only 5-locular.

Its anthers differ from *D. velutina* in lacking the hairy appendages of the major stamens and in the connectives of the minor stamens being shorter than the tubules although this character appears to be variable in *D. amoena* and so is perhaps not significant. It is longer in the specimen '*Winters & Higgins* 45' (det. Sleumer) but essentially similar in *Vink* 16267 as illustrated in Kores & van Royen (1982). Stevens (1974) mentions the discrete non-overlapping distributions of *D. amoena* (Morobe & E Highlands Districts), *D. velutina* subsp. *velutina* (E Sepik District) and *D. velutina* subsp. *rufa* Stevens from the Western and Southern Highlands Districts. These localities, all in the eastern half of New Guinea, are a long way from central Seram, the locality of *D. seramica*. *D. latifolia* Schltr. once collected from the Sepik area has short corollas but the stems are glabrous and the stamens much larger. Of possible West New Guinea species *D. anchorifera* J. J. Smith has much larger flowers and connectives not exceeding the tubules. *D. wollastonii* Wernh. also has large flowers and leaves with many more major veins and *D. doctersii* which although having only slightly larger corollas (2.5–3cm) has much longer stamens (13–16 & 11–14mm) and is an essentially glabrous plant.

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