

THREE NEW *GESNERIACEAE* FROM PALAWAN, PHILIPPINES

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Two new species of *Aeschynanthus* and one new *Henckelia* are described and illustrated. *Trichosporum grandiflorum* Elmer (non D. Don) is transferred to *Aeschynanthus* and renamed *A. elmeri* Mendum.

Keywords. *Aeschynanthus*, *Gesneriaceae*, *Henckelia*, new combination, new species, Palawan.

INTRODUCTION

The Philippine island of Palawan has a strong floristic relationship with Borneo (Merrill, 1923b; Atkins *et al.*, 2001). *Aeschynanthus* sect. *Aeschynanthus*, to which the two species described belong, appears to have its centre of development in Borneo; the genus *Henckelia* has about 50 species in Borneo (Weber & Burt, 1997) but hitherto only one, also from Palawan, was known from the Philippines. The new species were collected during a Royal Botanic Garden Edinburgh/Philippine National Herbarium expedition to Palawan in 1998, which proved very rich in *Gesneriaceae*; the *Cyrtandra* species are described by Atkins & Cronk (2001).

***Aeschynanthus* (sect. *Aeschynanthus*) *curvicalyx* Mendum, sp. nov. Fig. 1A–E.**

Calyx brevis crateriformis huius speciei novae eam ab speciebus ceteris *Aeschynanthi* sect. *Aeschynanthi* corollas magnas clare rubras ad basin gibbosas sed calyces tubulosos habentibus distinguit.

Type: Specimen cult. RBGE accession no. 19981826, originating from Philippines, Palawan, on path from Camp 3 towards Cleopatra's Needle, just above bamboo thicket, epiphyte closely appressed to tree trunk, (living material [seed] only), alt. 1500m; 22 i 1998, Mendum, Argent, Cronk, Middleton, Wilkie, Fuentes & Chavez 25434 (holo. PNH, iso. E).

Epiphyte. *Stems* climbing and rooting from most nodes then becoming pendulous and flexuous, to c.150cm, bright green sometimes flushed reddish, with sparse patent white mostly eglandular hairs to c.0.5mm, becoming scattered on older stems; internodes to 4 × 0.3cm. *Leaves* opposite, thick and succulent, glossy mid-green above and paler below, minutely white hairy on margins; blade 2.3–5.0 × 1.1–2.7cm, broadly lanceolate to ovate, margins entire, apex acute or rarely rounded, tip blunt, base rounded, mid-vein impressed above and prominent below, other veins indistinct; petioles 6–9mm, sparsely white hairy. *Inflorescences* borne on pendulous stems,

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axillary or pseudoterminal, 2–4-flowered. *Peduncles* (3–)8–20mm, sparsely white hairy, sometimes borne on short spurs. *Bracts* 1–3mm, oval, white hairy. *Bracteoles* 1.5–6mm, broadly elliptic, sparsely white hairy. *Pedicel* green, 14–16mm, slender, abruptly widening at apex, with scattered minute eglandular hairs. *Calyx* 5–8mm, bowl-shaped with shallow incurving lobes and with abscission layer at base, pale greenish-white flushed reddish in apical half, externally with occasional minute eglandular hairs towards apex. *Corolla* tubular, arcuate, 5.2–5.7cm, with small asymmetric gibbosity at base then flaring gently to throat, lobes spreading; externally bright scarlet, pale at base, internally cream at base of lobes and in throat and tube, with a red central line on each of the three lower lobes, upper lobes c.9 × 4mm (central sinus 3mm), lateral and lower lobes c.9 × 9mm, all rounded triangular and fringed with tiny glandular hairs; externally with sparse 0.3mm red glandular hairs on tube, internally with thickened papillate areas where lobes fuse and with short papillae in throat and nectar-containing tube. *Stamens* 4, inserted about $\frac{3}{4}$ up tube and slightly exerted; filaments cream, purple-flushed apically, papillose, posticous pair c.16mm, anticous pair c.31mm; anthers purplish, 2 × 1.5mm, pollen grey becoming ochre; staminode 1.5mm. *Disc* c.2 × 3.5mm, lobes indistinct. *Stipe* c.15mm, with occasional small glandular hairs. *Ovary* with sessile glands. *Style* c.8mm, glandular hairy. *Stigma* c.2mm diam. *Capsule* linear, to 29 × 0.5cm. *Seed* 1.1mm, papillose, hilar appendage c.7mm, lacking bubble cells, apical appendage c.7mm.

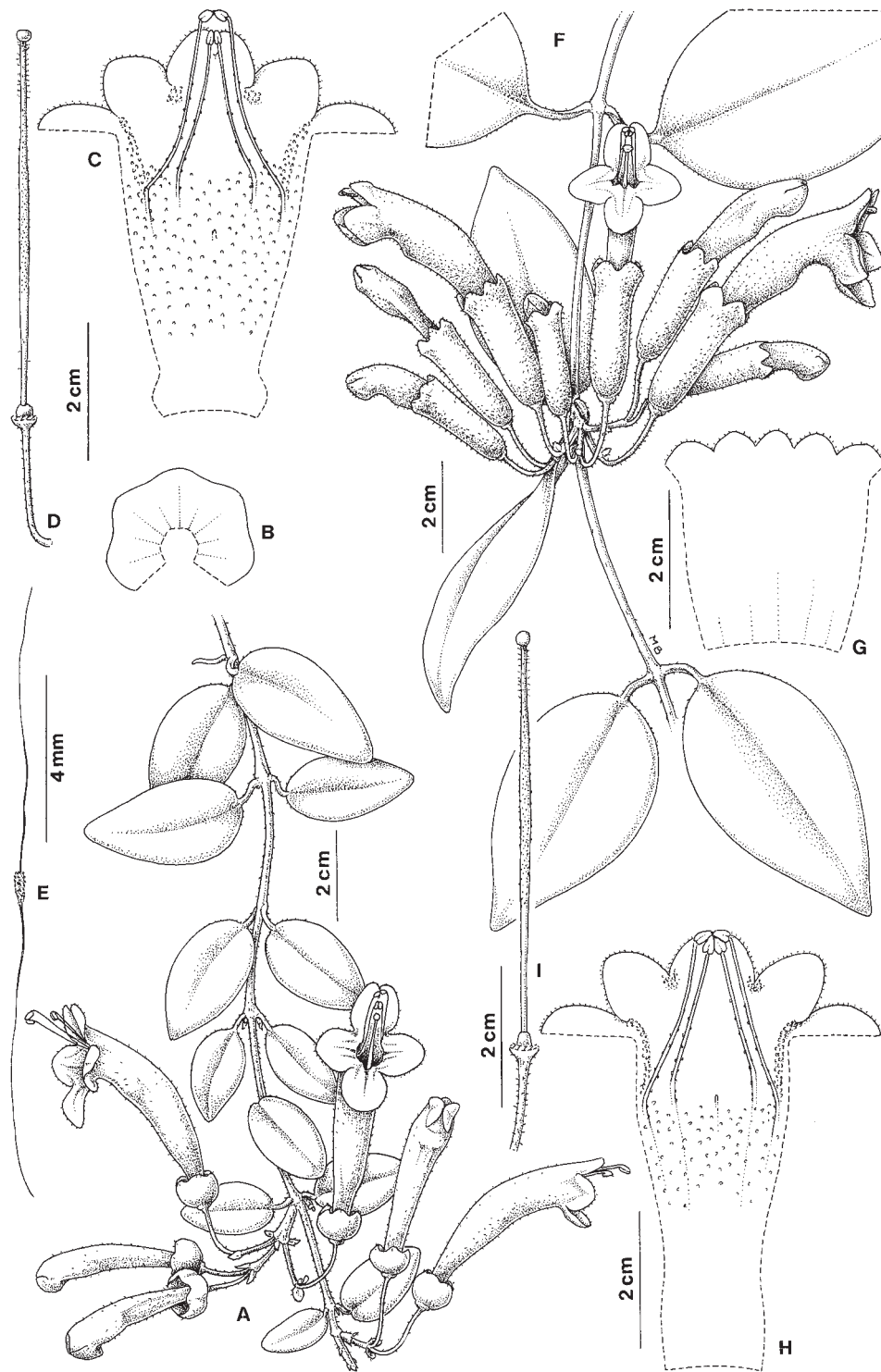
This species, with its trailing, flexuous stems and shallowly lobed calyx detaching easily from the pedicel, is a typical member of sect. *Aeschynanthus*. The seeds lack the podium of ‘bubble cells’ at the base of the hilar appendage that was at one time thought to be diagnostic for the section (Clarke, 1883; Burt & Woods, 1975), but some other members of the section, including the Bornean *A. tricolor* Hook. and the Palawan *A. arctocalyx* Mendum, also lack bubble cells. The large bright red corollas, cream in throat and tube and with a gibbosity at the base, are usually associated with tubular calyces; the calyx of *A. curvicalyx*, to which the epithet refers, is very different. The type was grown from seed; wild-collected cuttings of the same plant are cult. RBGE accession no. 19980281.

***Aeschynanthus* (sect. *Aeschynanthus*) *madulidii* Mendum, sp. nov. Fig. 1F–I.**

Ab omnibus speciebus *Aeschynanthi* sect. *Aeschynanthi* grandifloris borneensibus corollae basi haud gibboso differt, et ab *A. elmeri* Mendum (vide infra) calyce rubropiloso (haud glabro) tubuloso (non paulo infundibulari), tubo corollae intus papilloso (non glabro) et antheris multo minoribus recedit.

Type: Specimen cult. RBGE accession no. 19980282, originating from Philippines,

FIG. 1. *Aeschynanthus curvicalyx* Mendum. A, habit; B, calyx (split ventrally); C, corolla (split ventrally); D, gynoeceum; E, seed; drawn from RBGE cult. 19981826. *Aeschynanthus madulidii* Mendum. F, habit; G, calyx (split ventrally); H, corolla (split ventrally); I, gynoeceum; drawn from RBGE cult. 19980282.



Palawan, Thumb Peak, on path from base camp to peak, alt. 850m, *Mendum, Argent, Cronk, Middleton, Wilkie, Fuentes & Chavez* 25512 (holo. PNH, iso. E).

Epiphyte. *Stems* climbing and rooting from most nodes, becoming pendulous and flexuous, to c.140cm, bright green with antrorse white eglandular hairs to 0.2mm becoming sparse on older stems; internodes to 5×0.3 cm. *Leaves* opposite, hard and thick, mid-green above and paler below, minutely white hairy on margins and mid-vein below especially near base; blade ovate, $4.5-8 \times 2.6-4.1$ cm, margins entire, apex acute, tip blunt, base rounded, mid-vein impressed above and prominent below, other veins faintly visible; petioles 9–15mm, sparsely white hairy. *Inflorescences* axillary or pseudoterminal on pendulous stems, 2–several-flowered. *Peduncles* several on short spurs, 3–4mm, sparsely white hairy, each bearing one or two flowers. *Bracts* c.1mm, linear, hairy. *Bracteoles* 1.5–5mm, rounded, sparsely white hairy, caducous. *Pedicel* to 12mm, green with pale red eglandular hairs. *Calyx* with abscission layer at base; dull pale crimson with red eglandular hairs, 2.9–3.3cm long, tubular with c.3mm bluntly triangular somewhat irregular lobes, the dorsal lobe the smallest. *Corolla* tubular, arcuate, 6.2–6.7cm, straight for basal $\frac{1}{4}$ then flaring gradually to throat, three lower lobes spreading; externally bright red, internally cream on floor of throat and tube with red lobes, lower three cream at base and with a red line; upper lobes c. 9×8 mm (central sinus c.4mm), rounded oblong, lateral lobes c. 10×9 mm, bluntly triangular, lower lobe c. 13×8 mm, rounded oblong, all fringed with tiny glandular hairs; externally with 0.5mm red glandular hairs, internally papillose in middle third of tube and with two densely papillose ridges running from lateral/lower lobe junctions to insertion of anticous filaments, and with thickened areas of tissue and occasional hairs at base of upper/lateral lobe sinuses. *Stamens* 4, inserted about $\frac{3}{4}$ way up tube and not exerted; filaments cream flushed purple apically, coarsely papillose, posticous pair c.18mm, anticous pair c.26mm; anthers c. 2.5×1.5 mm, pollen purplish-grey; staminode 1mm. *Disc* c. 2×3.5 mm, lobes indistinct. *Stipe* c.15mm, glabrous. *Ovary* with sessile glands. *Style* c.9mm, glandular hairy, all pale green. *Stigma* c.3mm diam., cream. *Capsule* linear to 27×0.5 cm. *Seed* c.1mm, very papillose; hilar appendage c.9mm, lacking bubble cells; apical appendage c.8mm.

Again this species is typical for the section, but differs from the large flowered Bornean members with tubular calyces in that it lacks the pronounced gibbosity at the base of the corolla seen in the latter.

Aeschynanthus madulidii is named in honour of Dr Domingo Madulid, head of the Division of Botany, the National Museum, Manila, who has been of much help in facilitating our fieldwork.

The Philippine *Trichosporum grandiflorum* Elmer, from Mindanao, is similar to *A. madulidii* but differs in its glabrous slightly flared calyx with larger lobes, a lack of papillae on the floor of the corolla tube and much larger anthers. The transfer of

this species to *Aeschynanthus* requires a replacement name because *A. grandiflorus* (D. Don) Spreng. exists already as a synonym of *A. parasiticus* (Roxb.) Wall. The necessary new name is:

Aeschynanthus* (sect. *Aeschynanthus*) *elmeri* Mendum, **nom. nov.*

Syn.: *Trichosporum grandiflorum* Elmer, Leaflet Philipp. Bot. 7: 2667 (1915); non D. Don 1822.

***Henckelia corrugata* Mendum, **sp. nov.** Fig. 2A–F.**

Aff. *H. woodii* (Merr.) Weber & Burt quae folia minora pilosiora et inflorescentias unifloras habet species nova foliis valde corrugatis inaequaliter serratis, inflorescentiis plurifloras differt. A *H. crenata* (Baker) B. L. Burt (borneensis) foliis corrugatis (haud laevibus vel paullo bullatis) facile distinguitur.

Type: Specimen cult. RBGE accession no. 19981788, originating from Philippines, Palawan, side of ravine above Camp 3 towards Cleopatra's Needle, alt. 940m, 22 i 1998, Mendum, Argent, Cronk, Middleton, Wilkie, Fuentes & Chavez 25558 (holo. PNH, iso. E).

Upright herb. *Stems* to 80cm, leafless and woody in lower part, brown hairy in leafy part, sometimes branching near base. *Leaves* opposite, strongly corrugated, crowded towards apex of stem, to 21.5 × 4.1cm, linear-lanceolate, apex acute, base rounded, margins irregularly serrate, bright green above and paler with prominent reddish mid-vein below, with brown antrorse hairs along mid-vein above and below, along lateral veins below, and dense at leaf base and on 5mm petiole (leaves on juvenile plants ovate-lanceolate with petioles to 12mm). *Inflorescences* axillary in dichasial cymes, flowers sweetly scented. *Rhachis* 9.5–11cm. *Calyx* divided to base, lobes 3 × 0.8mm, linear, pale green, externally with colourless glandular hairs. *Corolla* 17mm, dorsoventrally compressed, strongly 2-lipped, floor of lower lip and tube deeply ridged and channelled, tube 8mm, two upper lobes reflexed, 6 × 5mm (central sinus 3mm) rounded, tips of three lower lobes deflexed; lateral lobes 9 × 5mm, rounded oblong, lower lobe 4 × 5mm, rounded; corolla externally white with colourless glandular hairs, internally white with pale purple lobes, hairs at base of upper lobes purple, hairs on lower lip to 1.3mm, pale yellow and very papillose, hairs on floor of tube shorter, smooth and purple. *Stamens* 2, filaments 6mm, white; anthers cohering, ovate, 2.5 × 1mm, white; pollen white; paired staminodes unequal, c.2mm, third staminode minute. *Disc* 1.5 × 2mm, yellow, glabrous. *Ovary* green with dense colourless glandular hairs and sessile glands. *Style* 4.5mm, white, hairy at base. *Stigma* c.1.5mm, capitate, white, densely and minutely glandular hairy. *Capsule* linear, straight, 18 × 1.5mm. *Seed* 0.4mm, ovate, somewhat flattened laterally.

The genus *Henckelia* Spreng., recently re-established by Weber & Burt (1997), is a primarily Sundaland genus of some 180 species, most of which were previously considered to be in *Didymocarpus*. The only other known Philippine *Henckelia*, *H. woodii* (Merr.) Weber & Burt, is also from Palawan. It is described as having pilose

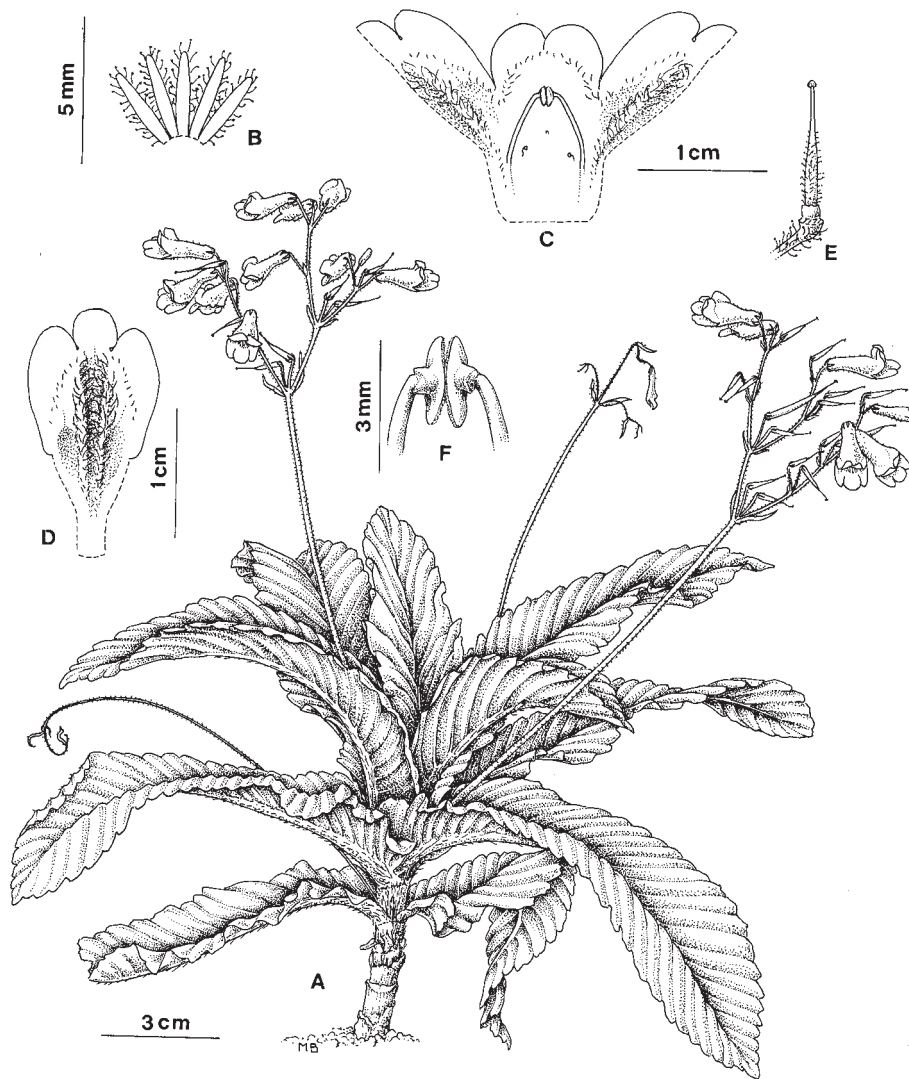


FIG. 2. *Henckelia corrugata* Mendum. A, habit; B, calyx (split ventrally); C, corolla (split ventrally); D, lower lip; E, gynoecium; F, anthers showing attachment to filaments; drawn from RBGE cult. 19981788.

leaves to 14cm and inflorescences bearing single 3cm flowers (Merrill, 1925). The Bornean *H. crenata* (Baker) B. L. Burtt (syn. *Didymocarpus multinervius* Merr.) appears similar to *H. corrugata*, another indication of the island's Bornean affinities (Weber & Burtt, 1997), but the leaves are described as being smooth or slightly bullate (Merrill, 1923a). *Henckelia corrugata* is known only from the type and was grown from leaf cuttings; the epithet refers to the ribbed leaf surface. The sterile

wild-collected specimen, 'Herb to 80cm. Rootstock woody. Leaves in top third only.', is a unicate in PNH.

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