

Notes on African plants

Various Authors

APOCYNACEAE

A NEW SPECIES OF *HUERNIA* (ASCLEPIADOIDEAE–CEROPEGIEAE) FROM SOUTHERN ANGOLA

The genus *Huernia* R.Br. consists of 64 species according to Leach (1988). However, further research has suggested that 49 species is a better estimate (Bruyns 2005). The present new species then brings the number of species in *Huernia* to 50. *Huernia* is widely distributed in sub-Saharan Africa and six species also occur in the Arabian Peninsula, where the former South Yemen is the northeastern limit of its distribution. In Angola, *Huernia* is represented by *H. oculata* N.E.Br., *H. similis* N.E.Br., *H. urceolata* L.C.Leach, *H. verekeri* Stent and *H. volkartii* Peitsch. ex Werderm. & Peitsch. Of these, only *H. similis* is endemic to Angola, whereas *H. oculata* and *H. urceolata* are found in both Angola and Namibia and *H. verekeri* and *H. volkartii* are more widely distributed in southern Africa. The new species described here is also an Angolan endemic and is of very local occurrence on the margin of the Namib Desert near Namibe (Figure 1).

***Huernia lopanthera* Bruyns, sp. nov.**, nullo dubio *H. kennedyana* Lavranos proxima, praecipue differt caulibus gracilioribus, corolla intus uniformiter rubra-brunnea cum papillis brevioribus, tubo corollae brevioris et lobis coronae exterioris interiorisque brevioribus.

TYPE.—Angola, NE of Namibe, Jan. 2006, *Bruyns* 10410 (BOL, holo.; K, iso.).

Dwarf succulent, up to 300 mm diam., forming dense mats of tightly packed stems, not rhizomatous. *Stems* 10–40 × 6–12 mm, decumbent, shortly ellipsoidal, grey-green; tubercles 1–3 mm long, conical, laterally flattened, acute, joined into 6 or 7 low ridges along stem to give it a tessellate appearance. *Inflorescence* of 1–3 flowers developing in gradual succession, arising at middle of or in lower half of stem on short peduncle (< 5 mm long), with fine filiform bracts 1 mm long; pedicel 7–10 × 1 mm, ascending, holding flower facing horizontally or slightly downwards; sepals 3–4 mm long, 1 mm broad at base, acuminate. *Corolla* 3–4 × 22–27 mm, shallowly plate-like to flat, scentless; outside obscurely papillate, pale brownish green, with 3 raised longitudinal veins running down lobes; inside uniformly deep red-brown becoming finely speckled with white towards centre, with many pale yellow papillae from middle of lobes to around corona, papillae up to 0.5 mm long and widely spaced on lobes becoming much shorter and densely crowded around corona; tube absent to very shallow (1–2 mm deep); lobes 5–7 × 7–10 mm, spreading, deltate, acuminate, with raised pale yellow papillate margin. *Corona* 2.5 × 3 mm, sessile on corolla; outer lobes 0.5 × 1–1.5 mm, spreading onto surface of corolla, ± rectangular to slightly notched in centre, pale yellow faintly suffused with red; inner lobes 1.5 mm long, deep yellow,

addressed to anthers in lower half then rising slightly to meet in centre, slightly dorsiventrally flattened, sometimes with swollen gibbosity at base, sometimes with slightly clavate, finely bristly apex. *Follicles* and *seed* unknown. Figure 2.

The new species differs from all others in Angola by its 6- or 7-angled, shortly ellipsoidal stems and the nearly flat flowers. Vegetatively, *Huernia lopanthera* is most similar to *H. kennedyana* Lavranos, *H. longii* Pillans and *H. pillansii* N.E.Br. from the southern edges of the Great Karoo in South Africa, on account of the tessellate stems with more than five angles. In *H. longii* and *H. pillansii* the corolla has a cupular tube and the lobes are much longer than broad, whereas in *H. kennedyana* the flowers are relatively flat with a shallow tube and the corolla lobes are roughly as long as broad. Consequently, among these three species, *H. lopanthera* is most similar to *H. kennedyana*. In *H. kennedyana* the stems are almost spherical and, at 10–25 mm thick, are mostly much thicker than those of *H. lopanthera*. The flower in *H. kennedyana* is brilliantly transversely striped with red-brown to maroon on a cream-coloured

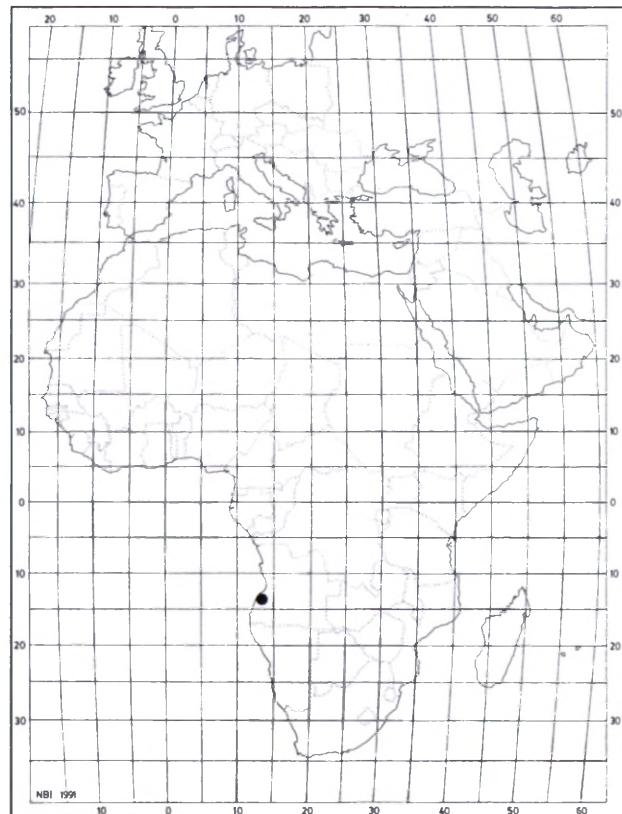


FIGURE 1.—Known distribution of *Huernia lopanthera*.

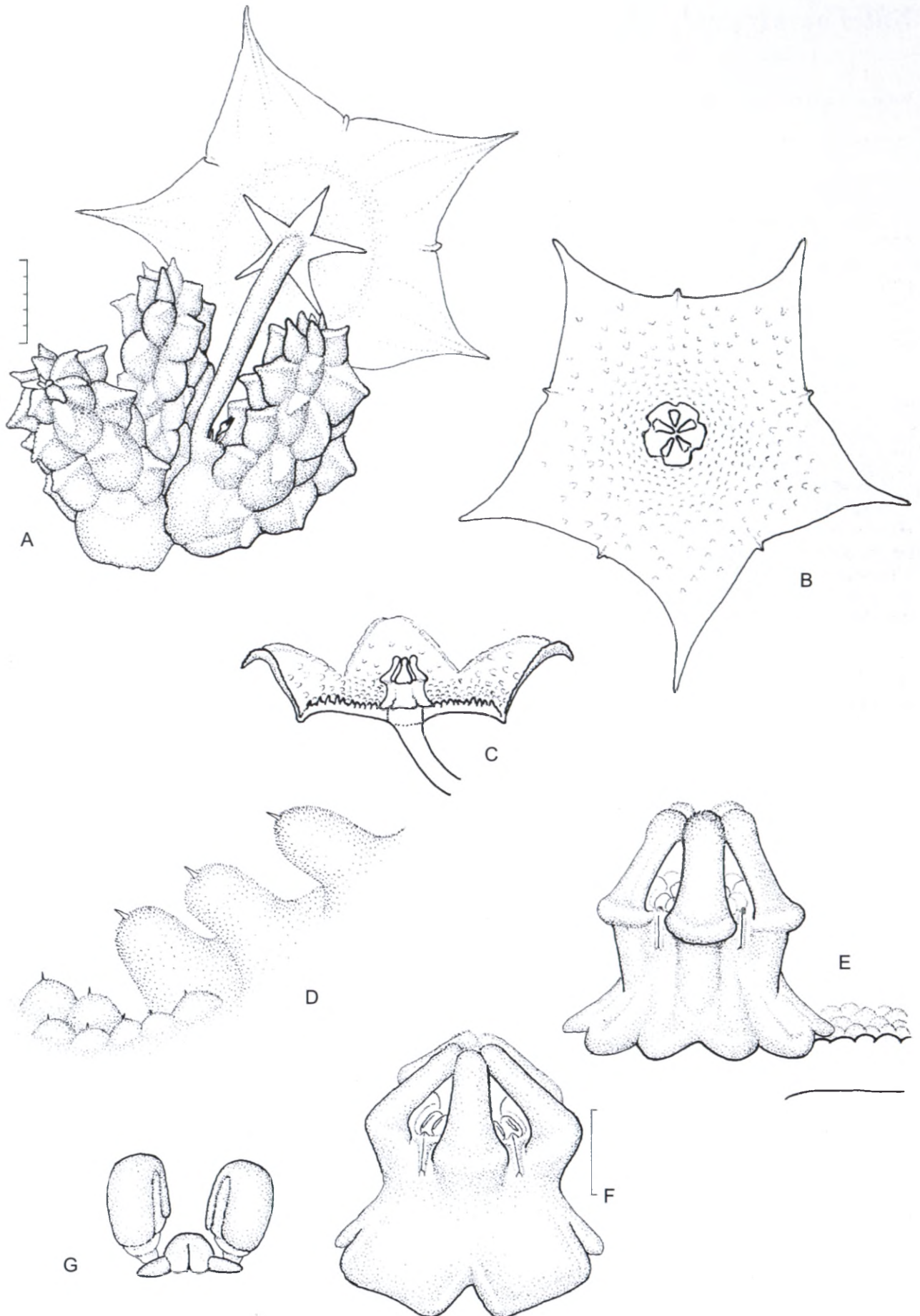


FIGURE 2.—*Huernia lopanthera*, Bruyns 10410. A, portion of plant; B, face view of flower; C, side view of dissected flower; D, papillae inside flower, larger ones from middle of lobes, smaller from around corona; E, F, side views of gynostegium; G, pollinarium. Scale bars (at A): A–C, 5 mm; (at F): D–G; D, 0.5 mm; E, F, 1 mm; G, 0.25 mm. Artist: P.V. Bruyns.

to dull yellow background (as opposed to uniformly deep red-brown in *H. lapanthera*), the corolla tube is 5–6 mm long (to 2 mm long in the new species, but often absent, as in Figure 1C) and the inner surface of the corolla has relatively long papillae, that reach a maximum length of 3 mm (contrasting with a maximum of 0.5 mm in the new species).

Although it has been stated (Leach 1969, 1974, 1988; Meve 1997: 42) that the corona in all species of *Huernia* is sessile on the base of the corolla tube, there are some species for which this is not the case (Bruyns 2005: 132). In those species of *Huernia* where the gynostegium is indeed sessile, the outer corona lobes can be pressed to the base of the corolla tube and may even be partly fused to it. The other extreme is presented by *H. kennedyana*, where the gynostegium possesses a short stipe (i.e. is not sessile) so that the outer corona is somewhat raised above the surface of the corolla tube. In this respect *H. lapanthera* differs from *H. kennedyana* in that it does not have a stipe beneath the gynostegium and the outer corona lobes touch the surface of the corolla, though they are not fused to it.

It has also been stated (Meve 1997: 43) that the gynostegium in *Huernia* is distinctive for the small tubercle on the outer corona projecting towards the base of the guide-rails. This structure is formed by the somewhat raised and projecting lip of the orifice below the guide-rails (Bruyns 2005: 133). Again this feature is actually variably present in *Huernia* (Bruyns 2005: 69, 133) and, while it is found in *H. kennedyana*, it is absent in *H. lapanthera*. In *H. kennedyana* the inner corona lobes are connivent in the centre and then diverge above this, whereas in *H. lapanthera* the inner corona lobes touch in the centre but do not rise above that and do not diverge again. The presence of a swollen gibbosity at their base

is surprisingly variable (as is seen in Figure 1E, F, drawn from different plants of the same collection) and the inner corona lobes are also sometimes swollen and finely papillate at their tips.

Plants of this new species form dense mats of very short stems filling crevices between rocks in gently sloping terrain. They occur amongst a sparse and very low vegetation, much of which is not higher than 300 mm. This vegetation contains a remarkable number of succulents. These include various members of the Portulacaceae, *Euphorbia carunculifera* L.C.Leach, *E. indurescens* L.C.Leach and *E. subsalsa* Hiern, one species each of *Kalanchoe* Adanson and *Kleinia* Miller, as well as a wide selection of Apocynaceae, including *Adenium obesum* (Forssk.) Roem. & Schultes, *Fockea angustifolia* K.Schum., *Hoodia currorii* (Hook.) Decne., *H. mossamedensis* L.C.Leach, *Huernia oculata* Hook.f., *Sarcostemma viminale* (L.) R.Br., *Stapelia kwebensis* N.E.Br. and *Tavaresia angolensis* Welw.

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