

ASCLEPIADACEAE

NEW SPECIES OF *CEROPEGIA*

Ceropegia arenaria R. A. Dyer, sp. nov., *C. denticulata* K. Schum. var. *brownii* (Ledger) Bally affinis, caulibus plusminusve prostratis, haud volubilibus, corollae lobis longioribus et tenuioribus, coronae lobis exterioribus trilobulatis differt.

Herba perennis crassa glabra, radicibus fasciculatis leviter carnosus. *Caules* graciles elongati prostrati vel subprostrati (haud volubiles), 3,5–5 mm crassi. *Folia* patentia leviter carnosus, glabra; petiolus circiter 7 mm longus; lamina crassiuscula, late ovato-oblonga vel lanceolata, interdum multo reducta, usque 40 mm longa, 25 mm lata, margine plana. *Flores* plures. *Sepala* anguste lanceolata, 4–5 mm longa, intra basi squamis minutis annulata. *Corolla* usque 60 mm longa; tubus circiter 35 mm longus, glaber, basi \pm 14 mm longus inflatus, supra medium constrictus, superne cylindricus apicem versus abrupte dilatatus, 15 mm diam., lobi erecto-conniventes, 15 mm longi, basi deltoidei superne lineares, arcte replicati. *Corona exterior* 3 mm longa, 5-saccata; lobi profunde 3-lobulati; coronae interioris lobi circiter 3 mm longi, lineares, incumbenti-erecti.

TYPE: Natal, 2732 (Ubombo), near Mpangazi Lake in coastal dune forest, 1964.01.09, *Strey 5031* (PRE, holo; NH).

Rootstock producing a cluster of subsucculent roots. *Stems* slender succulent, glabrous, prostrate or rambling, sometimes forming a tangled mat (not twining), 3,5 mm thick, 1 m or more long, rooting at the nodes, sometimes slightly mottled. *Leaves* with petiole up to 7 mm long; blade somewhat succulent, broadly ovate-oblong to lanceolate, sometimes much reduced and appearing obsolete, up to 40 mm long, 25 mm broad. *Peduncles* up to 15 mm long, spreading. *Flowers* 2–several, produced successively. *Sepals* narrowly lanceolate, 4–5 mm long, spreading, glabrous, with a ring of small squamae or scales round base of corolla. *Corolla* up to about 60 mm long, glabrous outside; tube 35 mm long, with basal inflation 14 mm long and slightly narrowed upwards, then abruptly spreading into a second subglobose inflation 6–7 mm diam., without internal annulus, cylindric above, widening to \pm 15 mm at throat, with few downward directed hairs from upper end, upper inflation longitudinally purple-blotched; tube towards mouth with long bulbous-based hairs; corolla-lobes linear-spathulate, 20–25 mm long, united at tips, slightly converging near middle, with margins strongly replicate, furnished with long spreading hairs towards base and with long, purple, clavate, vibratile hairs towards apex, purplish. *Corona* with shortly tubular base, outer lobes 3 mm high, forming 5 pockets within, deeply 3-dentate with middle tooth shortest; inner corona-lobes incumbent-erect, linear, \pm 3 mm long. FIG. 6.

Known only from the coastal dune-vegetation of Zululand, where it has been recorded by two collectors.

NATAL.—2732 (Ubombo), Mpangazi Lake area, in coastal dune forest, *Strey 5031*; Sordwana Bay, *Andre Liebenberg 423*.

This species is closely related to *C. nilotica* Kotschy in its various forms, but differs in habit, being prostrate or a rambler not twining, the corolla-lobes in bud are narrowest in the middle and form a waist, the open lobes are long and slender, remain approximate and sometimes are slightly twisted, towards the apex they are adorned by long purple, clavate, vibratile, caducous hairs, the outer corona-lobes are slightly spreading, trilobed, with the centre tooth the smallest.

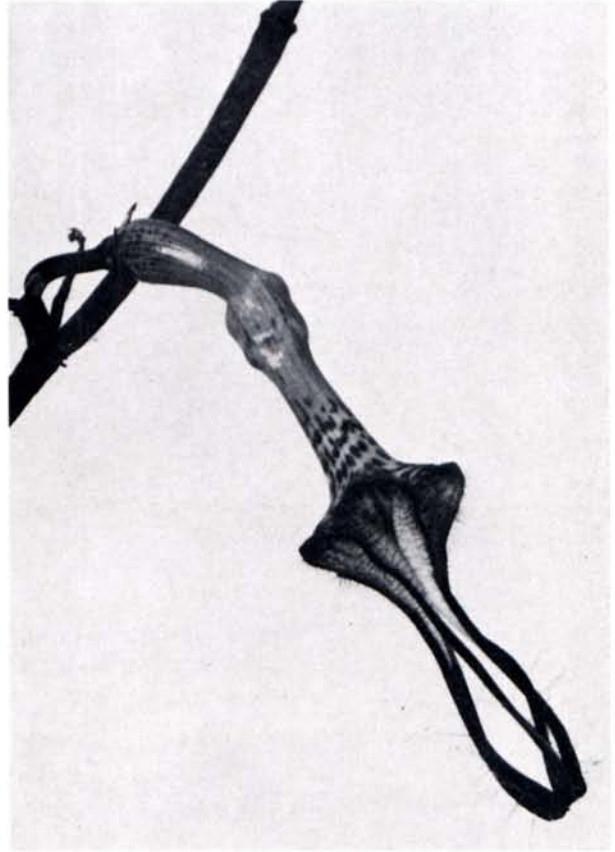


FIG. 6.—*Ceropegia arenaria*. Single flower, $\times 1,5$ (*Strey 5031*).

The closest relationship is with *C. brownii* Ledger, erroneously placed by Huber under *C. nilotica* in Mem. Soc. Brot. 12: 103 (1975) and separated by P.R.O. Bally as *C. denticulata* K. Schum. var. *brownii* (Ledger) Bally, in Candollea 20: 22 (1965). *C. arenaria* is unusual among its allies in not climbing, being prostrate or a rambler. It has a ring of minute squamae or scales within the base of the calyx, but these could so readily have been overlooked in related species that their taxonomic importance cannot be assessed. The trilobulate outer corona-lobes compare with the truncate outer margin in related species.

Ceropegia cynniflora R. A. Dyer sp. nov., radicibus fusiformibus, caulibus et foliis modice hirsutis, corolla cynniforme fere ad medium lobata, basi \pm 8 mm longa inflata, lobi infra medium pilis longis vibratilis caducis indutis, coronae forma distinguuntur.

Herba perennis, radicibus longis fusiformibus. *Caulis* annuus, 1–3 mm longus, quadrangularis, scandens leviter volubilis, modice hirsutus. *Folia* petiolata, hirsuta; petiolus circiter 5 mm longus; lamina ovato-lanceolata, cordata, \pm 10 mm longa. *Cymae* pauciflorae; pedunculi 10–25 mm longi; pedicelli \pm 10 mm longi. *Sepala* lineari-lanceolata \pm 4 mm longa. *Corolla* \pm cynniformis, 30–35 (40) mm longa, fere ad medium lobata; tubus basi \pm 8 mm longus inflatus, supra breviter constrictus, superne \pm 6 mm dilatatus; lobi lineares marginibus involutis, infra medium pilis longis vibratilis caducis induti. *Coronae* exterioris lobi 2,5–3 mm longi, ad medium bilobulati; coronae interioris lobi lineari-filiformes \pm 3 mm longi.

TYPE: Natal, 2930 (Pietermaritzburg), Muden, woody hillside near river, Jan. 1936, *Cronwright 26* (PRE, holo.).

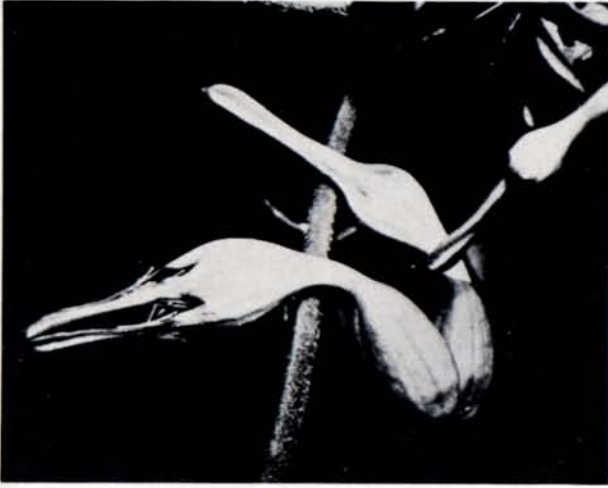


FIG. 7.—*Ceropogia cynniflora*. Flowers, $\times 1.5$.

Rootstock producing cluster of long fusiform roots. *Stem* single annual, 1–3 m tall, climbing and slightly twining, quadrangular, more herbaceous than succulent, moderately hirsute; with hairs densest near the nodes. *Leaves* hirsute, petiolate; petiole 5 mm or more long; blade ovate-lanceolate, cordate, 10 mm or more long. *Flowers* in small pedunculate cymes; peduncles 10–25 mm long, extra axillary, thinly hairy; pedicels ± 10 mm long. *Sepals* linear-lanceolate, ± 4 mm long. *Corolla* 30–35 (40) mm long, nearly half way divided, mainly light green; tube with elliptic-oblong basal inflation ± 6 mm diam., ± 8 mm long narrowed gradually into a short waist and then expanded to mouth about same diam. as inflation; lobes linear, slightly spreading from tube, with infolded margins which have long clavate, vibratile, caducous hairs from lower half. *Corona* divided almost to base; outer lobes 2, 5–3 mm long with linear-oblong base and divided from about the middle into linear or filiform lobules; inner corona-lobes incumbent erect, linear-filiform, ± 3 mm long, with slightly recurved apex. *Pollinia* ovoid with short apical translucent margin, shortly attached to minutely winged carrier. *Follicles* ± 60 mm long, ± 4 mm diam., smooth, glabrous. FIG. 7.

Known only from three collections made by *Cronwright* in the Muden Valley: the first in January and two in March of 1936. He noted that the plants favoured steep woody hillsides near watercourses and that flowering had practically ceased by the middle of March.

NATAL.—2930 (Pietermaritzburg) Muden, *Cronwright* 26.

This species was first collected in 1936 at a time when Eileen Bruce, at Kew, had a special interest in the genus. Because of uncertainty as to who should undertake the description, it was left in indefinite abeyance. The photograph of the corolla reminds one of the head and beak of a swan or crane.

Ceropogia occidentalis R. A. Dyer, sp. nov., herba tuberosa, suberecta haud volubilis aliquantum carnosa, corona exterior late cupulata 1,5 mm profunda, coronae lobi interiores lineari-oblongi, incumbenti-erecti, 2 mm alti, distincta.

Herba perennis tuberosa, glabra; tuber 20–40 mm diam. *Caules* 1(2) annui, 150–300 mm alti, haud

volubiles, sparsim ramosi, leviter carnosi. *Folia* carnosa, oblongo-lanceolata, ± 20 mm longa, ± 5 mm lata, infra convexa, supra canaliculata. *Flori* 2-plures, extra axillares; pedicelli 5–8 mm longi. *Sepala* lanceolata, ± 2 mm longa. *Corolla* 25–30 mm longa, glabra, basi leviter inflata, 5–7 mm diam., ostio ± 7 mm lato; lobi circiter 7 mm longi, replicati, apice connati, intra pilis paucis longis induti. *Corona* exterior late cupulata, 1,5 mm profunda; coronae lobi exteriores lineari-oblongi, incumbenti-erecti, 2 mm longi.

TYPE.—Cape, 3118 (Vanrhynsdorp) Papendorp at mouth of Olifants River (–CB), *H. Hall* 3679 (PRE, holo.).

Perennial herb with tuberous rootstock, sometimes producing auxillary tubers, glabrous. *Stems* 1(2) annual, 150–300 mm high (with support of shrublets), not twining, somewhat fleshy, sparsely branched, glabrous. *Leaves* fleshy, oblong-lanceolate, ± 20 mm long, ± 5 mm broad rounded on back, channelled down face, glabrous, reduced in size on terminal growth. *Flowers* 2–few from extra-axillary eyes, opening in succession; pedicels 5–8 mm long. *Sepals* lanceolate, ± 2 mm long. *Corolla* 25–30 mm long, glabrous, sinuses spreading in bud; tube 20–25 mm long, with basal swelling 5–7 mm diam., contracted above and then expanding to mouth ± 7 mm wide, pale green with crimson spots and longitudinal marking within tube; lobes ± 7 mm long, united at tips, replicate towards base, somewhat spatulate above with long dark inflexed hairs. *Corona* with broadly campanulate tube 1,5 mm deep, forming 5 pockets with entire crescent-shaped margins confluent with the base of inner corona-lobes; inner corona-lobes linear-oblong, incumbent-erect, ± 2 mm high with somewhat flattened back. *Pollinia* asymmetric, 0,2 mm long, contracted to the apex, attached by very short caudicles towards base to carrier. FIG. 8.

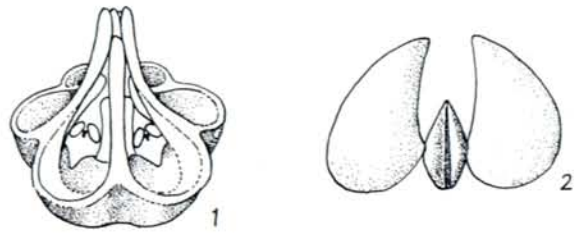


FIG. 8.—*Ceropogia occidentalis*. 1, corona, united at base forming five pockets with entire margins confluent with base of incumbent-erect inner corona lobes, $\times 10$; 2, pollinia and carrier, $\times 100$.

Known only from the type locality at the mouth of the Olifants River, where it grows at the foot of sandstone outcrops, 30–35 m alt., suberect with the support of shrublets.

CAPE.—Vanrhynsdorp, *Hall* 3060; 3679.

Harry Hall has a number of discoveries to his credit of remarkable plants in the western Cape and Namaqualand. This is one of them. It is separated geographically by many inhospitable miles from any other species of the genus and it is not surprising that it has a character of its own. Although it shows some affinity with *C. africana*, it differs markedly in coronal structure.

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