

Neuropeltis eladii (Convolvulaceae), a new species from the South Province of Cameroon

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Background and aims – The paleotropical genus *Neuropeltis* of the Convolvulaceae was recently treated in a synopsis for the African continent (Breteler 2010), counting nine species. This number is now enlarged by a new, overlooked, species from the South Province of Cameroon.

Methods – Normal practices of herbarium taxonomy have been applied to study all herbarium material available, mainly from BR, K, P, and WAG. The distribution map has been produced using Arcview 324. Its collecting data are stored in the NHN (Nationaal Herbarium Nederland) database.

Key results – The new species *Neuropeltis eladii* is described and illustrated, its distribution is mapped, and its conservation status assessed as Vulnerable (AOO) and Endangered (EOO). The key published earlier for the nine continental African species (Breteler 2010) is partly changed and extended to accommodate the new species.

Key words – Convolvulaceae, *Neuropeltis*, taxonomy, new species, tropical Africa, Cameroon.

INTRODUCTION

During the preparation of the treatment of the Convolvulaceae for the Flore du Gabon it appeared that *Neuropeltis pseudovelutina* Lejoly & Lisowski (1984) had not been recorded from adjacent Gabon so it remains an endemic species from Cameroon. However, it was overlooked earlier (Breteler 2010), that the two collections on which *Neuropeltis pseudovelutina* was based by their authors, Breteler 1703, the type from the East Province of Cameroon, and Zenker 3835, the paratype from the South Province of Cameroon, are not conspecific. The south-cameroonian element differs from the type specimen by its dense, persistent indumentum on the lower leaf surface and the much longer pistil. It has been collected several times since *Neuropeltis pseudovelutina* was published, which makes it possible to establish its identity as an undescribed species.

TAXONOMIC TREATMENT

Neuropeltis eladii Breteler, sp. nov.

Neuropeltis pseudovelutinae Lejoly & Lisowski maxime simili forma folii, sed ab ea differt indumento in pagina inferiore multum densiore persistenti, indumento in pagina superiore deciduo, adpresso et floribus pistillo corolla longiore. – Type: Cameroon, South Province, 16 km Ebolowa-Minkok road, 20 Jan. 1975, J.J.F.E. de Wilde 7912 (holo-: WAG, two

sheets, numbered A & B; iso-: B, BR, EA, K, LG, MA, MO, P, PRE, SRGH, YA).

N. pseudovelutina Lejoly & Lisowski pro parte, quoad plantam paratypicam.

Liana up to at least 1.5 cm in diameter. *Branchlets*, *petioles*, lamina of leaves beneath, and inflorescences dark-brown tomentose. *Leaves*: petioles \pm terete, narrowly grooved above, (7–)10–25 mm long; lamina oblong-elliptic, 1.5–2.5 times as long as wide, (6–)8–13(–15) \times 3–6(–8.5) cm, rounded to obtuse to subcordate at base, 0.5 cm acuminate and 1–6 mm long mucronate at apex, with 7–13 pairs of main lateral nerves, above with very pale-brown to \pm white, very closely appressed, caducous hairs, the lower surface completely hidden by a densely brown-tomentose indumentum. *Inflorescence* an unbranched, multi-flowered raceme, rarely with one or a few branches, compound by reduction of leaves on branch apices, up to c. 7 cm long; peduncle 1.5–4 cm long; bracts partly united with pedicel, the free part narrowly ovate, 3–4 mm long; bracteoles c. 1 mm long, usually absent. *Pedicel* 1–3 mm long. *Sepals* \pm elliptic, 2–3 \times 1.5–2 mm, appressed-pubescent outside, glabrous inside. *Corolla* white, somewhat orange in the throat, 6–7.5 mm long; lobes 2–3.5 mm long, suberect to spreading to somewhat reflexed, pubescent outside. *Stamens* (6–)8–12 mm long, glabrous; anthers 1–2 mm long. *Disc* \pm as wide as the ovary, c. 0.2–0.3 mm long, slightly lobed or not, glabrous. *Pistil* 7–10 mm long, glabrous; ovary 1–1.5 mm long; styles \pm equal in

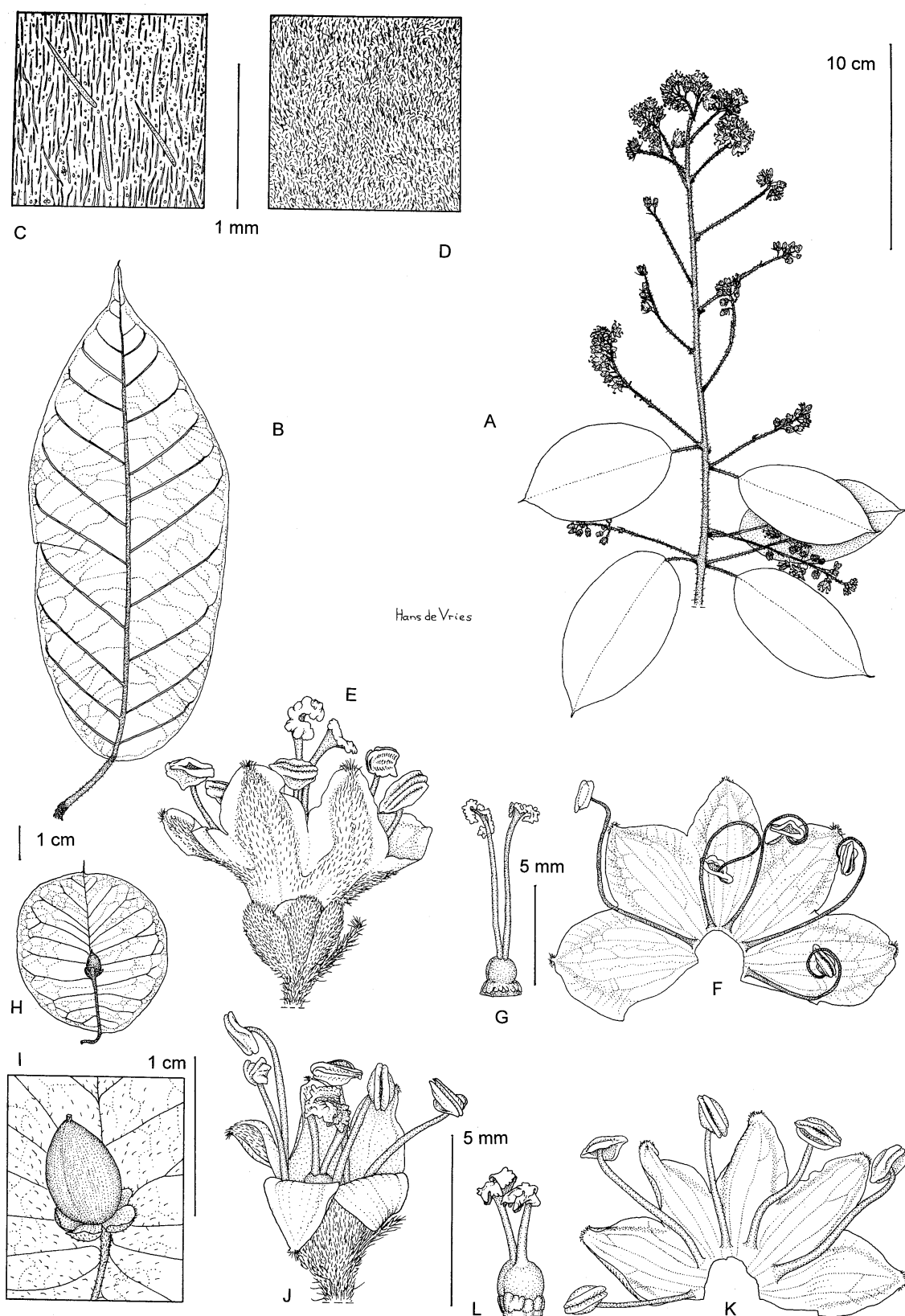


Figure 1 – *Neuropeltis eladii*: A, flowering branch; B, leaf; C, detail of indumentum on upper surface of leaf; D, detail of indumentum on leaf beneath; E, flower; F, opened up corolla with stamens; G, pistil; H, fruit with enlarged bract; I, detail of fruit with persistent calyx. – *N. pseudovelutina*: J, flower; K, opened up corolla with stamens; L, pistil. A, E–I from J.J. F.E de Wilde 7912 (WAG); B–D from Elad 515 (WAG); J–K from Breteler 1703 (WAG). Drawn by H. de Vries.

Extension of key to African *Neuropeltis* (Breteler 2010)

8. Leaves persistently, densely brown-hairy beneath, the leaf surface completely hidden by it; upper surface of leaves with very pale-brown to \pm white, very closely appressed hairs, becoming glabrous; Cameroon.....*N. eladii*
8. Leaves not persistently hairy beneath and/or lower surface clearly visible between the more or less laxly arranged hairs; upper surface glabrous except for the hairy, impressed midrib and sometimes with a very few hairs on the impressed main lateral nerves.....9
9. Branches with numerous small lenticels; mature leaves pale-brown to greyish-beneath; corolla 6–7 mm long, shorter than the 7–8 mm long pistil; Nigeria, Cameroon, Equatorial Guinea, Gabon, Central African Republic.....*N. alnifolia*
9. Branches not or sparsely lenticellate; mature leaves dark-brown beneath; corolla 4.5–5 mm long, longer than the 4 mm long pistil; Cameroon.....*N. pseudovelutina*

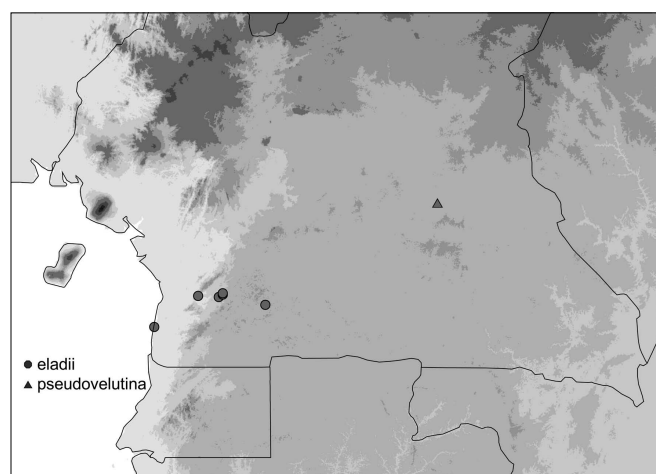


Figure 2 – Distribution of *Neuropeltis eladii* (dots) and *N. pseudovelutina* (triangle) in Cameroon.

length. **Fruit** ovoid-ellipsoid, 7–8 \times 4–5 mm, glabrous, minutely pustulate. Enlarged bract circular in outline, 4–5 cm in diameter, pubescent to puberulous. Mature seeds unknown. Fig. 1.

Habitat and distribution – Tropical rain forest in the South Province of Cameroon. Altitude up to 700 m. Fig. 2.

Additional specimens studied – **Cameroon**: South Province, Ebom, 8 Nov. 1995, *Elad & Parren* 400 (WAG); *ibid.*, 17 Nov. 1995, *Elad* 414 (BR, MO, WAG); *ibid.*, 27 Aug. 1996, *Elad* 515 (BR, WAG); Campo-Maán area, between Lolabé II and Lolabé III on Kribi-Campo Rd., 14 Aug. 2001, *van Andel & Mva* 3869 (WAG); Bipindi, 1908, *Zenker* 3608 (G, K); *ibid.*, 1909, *Zenker* 3835 (BR, G, K, L, P).

Conservation status (IUCN 2011) – The area of occupancy (AOO) of *Neuropeltis eladii* is calculated at 1319 km² which means that its status is Vulnerable. The extent of occurrence (EOO) of 2955 km² signifies that this species is Endangered. Although most of the collections of *Neuropeltis eladii* are of a rather recent date, the ongoing deforestation and forest exploitation in its area fully justifies the status as Endangered.

The conservation status of *Neuropeltis pseudovelutina* cannot be calculated because of deficient data (DD). It leaves however no doubt, that the area where it was once collected

suffers under population growth as well as under forest exploitation.

Notes – The key, published earlier (Breteler 2010) with the synopsis of the African species, has to be adapted. The new species *Neuropeltis eladii* will key out under couplet 7 second choice, leading to 8. To accommodate the remaining three species, *Neuropeltis alnifolia* Lejoly & Lisowski, *N. eladii*, and *N. pseudovelutina*, the key is changed and extended as follows.

After the classification of the material from the South Province of Cameroon as *Neuropeltis eladii*, *N. pseudovelutina* now remains to be only known by its type from the East Province of Cameroon. See fig. 2.

Etymology – The new species has been named after Epah, Maurice Elad, excellent forest botanist and plant collector from Cameroon.

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