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NEPENTHES VOGELII (NEPENTHACEAE): A NEW SPECIES FROM SARAWAK

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SUMMARY

Nepenthes vogelii Schuit. & de Vogel is described as a new species from Sarawak. It is compared with *N. fusca* Danser, from which it differs e.g. in the much smaller pitchers, of which the lid lacks appendages.

Key words: *Nepenthes*, Sarawak, carnivorous plants.

In recent years the growing interest in the carnivorous plant genus *Nepenthes* has culminated in the appearance of several excellent books and articles dealing with these intriguing and often beautiful plants (Phillipps & Lamb, 1996; Clarke, 1997, 2001; Jebb & Cheek, 1997, 2001). This recent literature has enabled the authors to establish with relative ease that a specimen cultivated for the past five years in the Hortus Botanicus, Leiden, must be considered undescribed.

Nepenthes vogelii Schuit. & de Vogel, *spec. nov.* — Fig. 1

> *Nepenthidi fuscae* similis, ascidiis multo minoribus, operculo inappendiculato, ascidiis superioribus peristomio eglanduloso secus marginem interiorem, operculo ovato marginibus planis nec anguste triangularibus marginibus involutis differt. — Typus: *Leiden cult. (A. Vogel, A. Schuiteman & T. Roelfsema) 981037*, Sarawak, Kelabit Highlands, material from a specimen in cultivation at the Hortus Botanicus, Leiden, 2001–2002 (holo SAR; iso L, including spirit material).

Stem climbing, slender, terete, c. 4 mm diam., internodes 3–7.5 cm long. *Indumentum* red-brown, consisting of dense, short, branched hairs c. 0.2 mm long mixed with scattered, longer, basally branched hairs c. 0.5–0.8 mm long, on stems, petioles, tendrils and pitchers, longer hairs on the pitchers appressed; surfaces of leaf blade only with scattered simple hairs c. 0.5 mm long, with longer hairs, to c. 1 mm long, present along the margins. *Leaves* coriaceous, petiolate; *petiole* canaliculate, 2.5–3.5 cm by 5–7 mm, at the base decurrent on the stem for 5–7 mm, this part slightly wing-like dilated; *leaf blade* oblong to narrowly obovate-oblong, 8–12.5 by 2.4–4.3 cm, base cuneate, apex slightly oblique, acute; longitudinal nerves 2 on each side of the midrib close to the outer margin, inconspicuous, arising from pennate nerves in basal third, pennate nerves numerous, patent, curved, inconspicuous. *Tendrils* about as long as the combined petiole and leaf blade, with a coil near the middle. *Pitchers*, including the lid, greenish

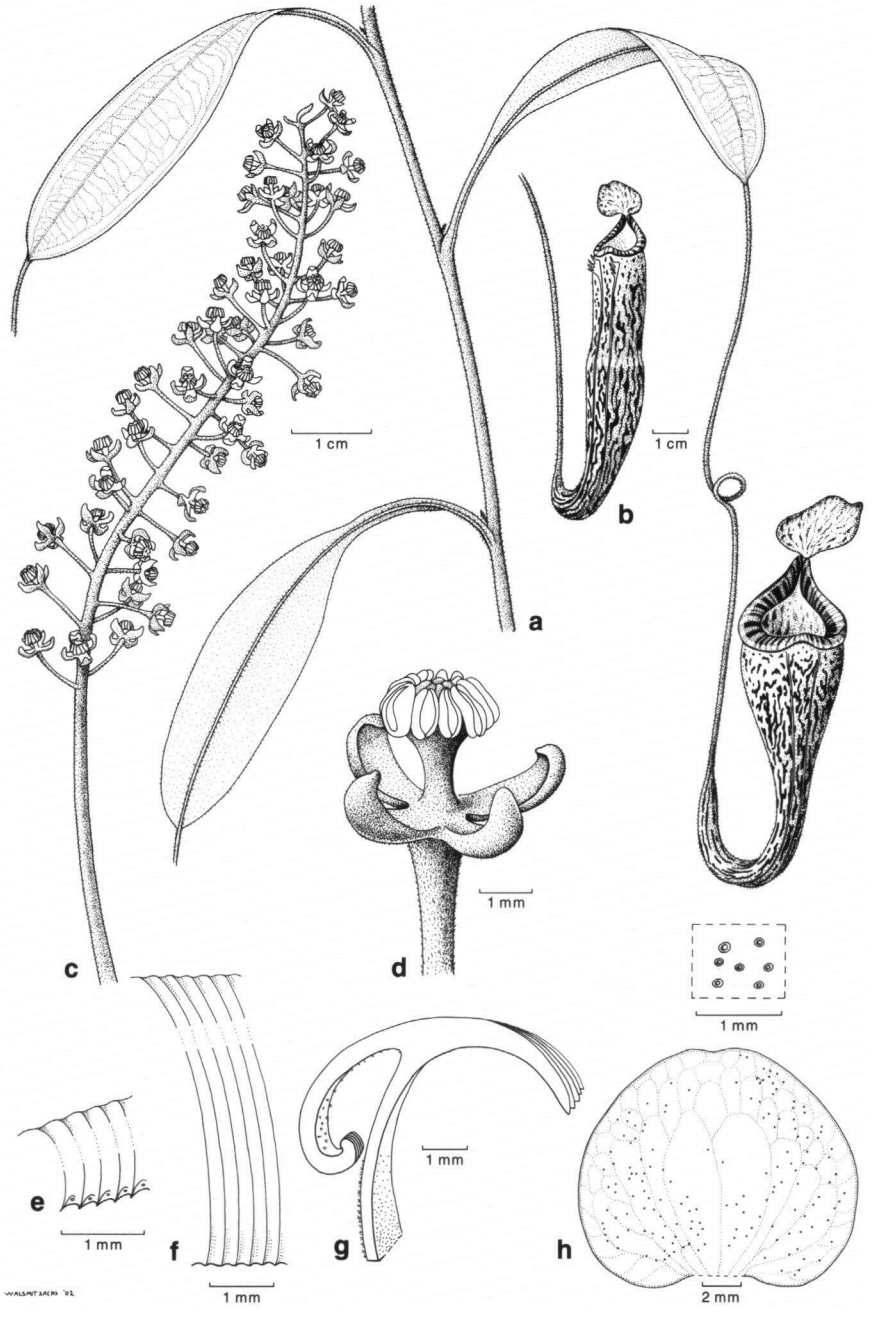

Fig. 1. *Nepenthes vogelii* Schuit. & de Vogel. a. Stem with upper pitcher; b. lower pitcher; c. male inflorescence; d. male flower; e. detail of peristome of lower pitcher; f. detail of peristome of upper pitcher; g. cross section through peristome of upper pitcher; h. lid of upper pitcher; detail of glands on lower surface (*Leiden cult. (A. Vogel, A. Schuiteman & T. Roelfsema) 981037*).

cream with deep dull red-purple blotches, peristome light yellow with many red stripes. *Lower pitchers* cylindrical, gradually tapering to the base, at c. 1/3 above the base with a very slightly thickened annular zone, broadly and weakly constricted in the middle, only slightly widened towards the mouth, 9–9.5 by 1.3–1.5 cm, near the mouth with or without two very short fringed wings, the wings 1–7 mm long, c. 1.5 mm wide, the fringe segments 2–3 mm long, 0.1–1.5 mm apart; mouth broadly ovate, elevated towards the lid; *peristome* flattened-semicylindrical, c. 2 mm wide in front, c. 3 mm wide at the back, finely ribbed, the ribs c. 0.3 mm apart, inner margin denticulate, with a gland between adjacent teeth, outer margin entire; *lid* orbicular, 1.2–1.5 by 1.5–1.6 cm, base cordate, apex broadly rounded, both surfaces without appendages, nectar glands of the lower surface absent in the centre or almost so, scattered elsewhere, orbicular, rimmed, c. 0.13 mm across; spur 2–3.5 mm long, at 2.5–3 mm below the lid, unbranched. *Upper pitchers* infundibuliform, gradually tapering to a long narrow base, 7.5–9 by 2.5–2.7 cm, without wings but with two somewhat prominent ridges; *peristome* flattened, 4–5 mm wide in front, 5–7 mm wide at the back, finely ribbed, the ribs c. 0.25 mm apart, inner margin weakly obtusely denticulate, eglandular, outer margin entire; *lid* ovate, 2–2.6 by 1.5–1.9 cm, base cordate, apex obtuse, both surfaces without appendages, nectar glands of the lower surface absent in the centre or almost so, scattered elsewhere, orbicular to elliptic, rimmed, 0.14–0.2 mm across; spur 3–5 mm long, at 2–4 mm below the lid, unbranched. *Male inflorescence* 12.5 cm long, racemose, c. 50-flowered; peduncle 4.5 cm long; pedicels 1-flowered, 6–10 mm long, bracts absent; tepals elliptic, c. 2.6 by 1 mm; androphore 2.3 mm long, anther head c. 1.3 by 1.6 mm. Female inflorescence, fruit and seed not seen.

Distribution — Sarawak, Kelabit Highlands (exact locality withheld for conservation purposes).

Ecology — Terrestrial in moss in wet kerangas forest on white sand, altitude 1000 m above sea-level.

Notes — 1. A single living specimen of this new species was collected in March 1997 as a small seedling from an area where *N. stenophylla* Mast. was abundant and where *N. veitchii* Hook.f. also occurred. After some years in cultivation at the Leiden Hortus Botanicus it turned out to be very different from either of these two species. In habit and in the overall shape of the strongly dimorphic pitchers, *N. vogelii* can only be compared to *N. fusca* Danser. It differs from the latter in the considerably smaller size of the upper pitchers (7.5–9 cm long in *N. vogelii*, 11–21.5(–30) cm long in *N. fusca*, fide Cheek & Jebb, 2001), but perhaps more significantly in the complete absence of appendages on the pitcher lid, the different distribution of the nectar glands on the lower surface of the lid, the almost rudimentary or even lacking wings on the lower pitchers, and the lack of glands along the inner margin of the peristome of the upper pitchers. In addition, the lid of the upper pitchers in *N. fusca* is narrowly triangular with involute margins, while it is ovate with flat margins in *N. vogelii*.

2. The fact that no mature plants of *N. vogelii* were seen at the type locality may indicate that this species normally occurs as an epiphyte, in which case it could have been overlooked. On the other hand, it may also imply that its occurrence in kerangas vegetation is incidental, and that its typical habitat is in the surrounding montane forest. A hybrid origin seems unlikely, as our new species shows no trace of introgression from the locally occurring *N. stenophylla* and *N. veitchii*.

3. On the website of a commercial nursery in Sarawak (Malesiana Tropicals) a plant that is undoubtedly conspecific with *N. vogelii* was recently (August, 2002) illustrated as 'Nepenthes spec. #4', with an accompanying note stating that it was "a newly discovered and undescribed species occurring in montane limestone forest in northern Borneo".

4. This species is named after Mr. Art Vogel, greenhouse manager of the Leiden Hortus Botanicus, who co-discovered and successfully cultivated this species. His skills as a cultivator of *Nepenthes* species, Orchidaceae, and *Amorphophallus*, among many other plant groups, are second to none and have been highly beneficial for botanists working on these taxa.

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REFERENCES

Clarke, C. 1997. Nepenthes of Borneo. Natural History Publications (Borneo), Kota Kinabalu.

Clarke, C. 2001. Nepenthes of Sumatra and Peninsular Malaysia. Natural History Publications (Borneo), Kota Kinabalu.

Jebb, M. & M. Cheek. 1997. A skeletal revision of Nepenthes (Nepenthaceae). Blumea 42: 1–106.

Jebb, M. & M. Cheek. 2001. Nepenthaceae. Fl. Malesiana, ser. I, 15: 1–157.

Phillipps, A. & A. Lamb. 1996. Pitcher-plants of Borneo. Natural History Publications (Borneo), Kota Kinabalu.