

A New *Nepenthes* from Gunong Besar, Kalimantan Selatan, Borneo

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Abstract

One new species of *Nepenthes*, *N. borneensis*, from Gunong Besar in Kalimantan Selatan Borneo is described.

Introduction

The new *Nepenthes* described is based on a single duplicate female specimen distributed to L from KYO. The species according to the collectors note on the herbarium label was found at an altitude of 1300–1880 m. The altitudinal zone falls within the range of mossy forest in Kalimantan.

The species is related to *N. boschiana* Korthals by its prominent decurrent petiole base, expanded peristome of upper pitcher and delicately wavy outer peristome margin. The species, however, is distinguished from *N. boschiana* as listed in Table 1 below:

Table 1
The diagnostic characters of *N. borneensis* and *N. boschiana*

<i>N. borneensis</i>	<i>N. boschiana</i>
1. Glandular crest on lower lid absent.	Glandular crest on lower lid surface prominent.
2. Inside surface of upper pitcher wholly glandular.	Inside surface of upper pitcher glandular on lower ovate part only.
3. Upper pitcher infundibulate.	Upper pitcher $\pm$ cylindrical in upper 2/3, ovate lower 1/3.
4. Peristome flattened.	Peristome cylindrical.
5. Tendril insertion to leaf tip sub-peltate.	Tendril insertion to leaf tip apical.

We have seen the type specimens of *N. boschiana* in L; and the original description of the species by Korthals (1839). The differences between the 2 taxa indicate their separation as distinct species.

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Nepenthes borneensis Adam & Wilcock *sp. nova*.

Plate 1, Fig. 1

Type: Murata, Kato & Moge, B-3455 (HLB. 478518), Kalimantan Selatan, Gunong Besar, alt. 1300–1880 m, 18.2.1979, *holotype* L.

Caulis angularis. Folia adulta alternantia, coriacea, petiolata; lamina lanceolata apex acutus sub-peltatus



Plate 1 *Nepenthes borneensis* Adam & Wilcock. From Murata, Kato & Moge, B-3455. Upper stem with leaves and pitchers.

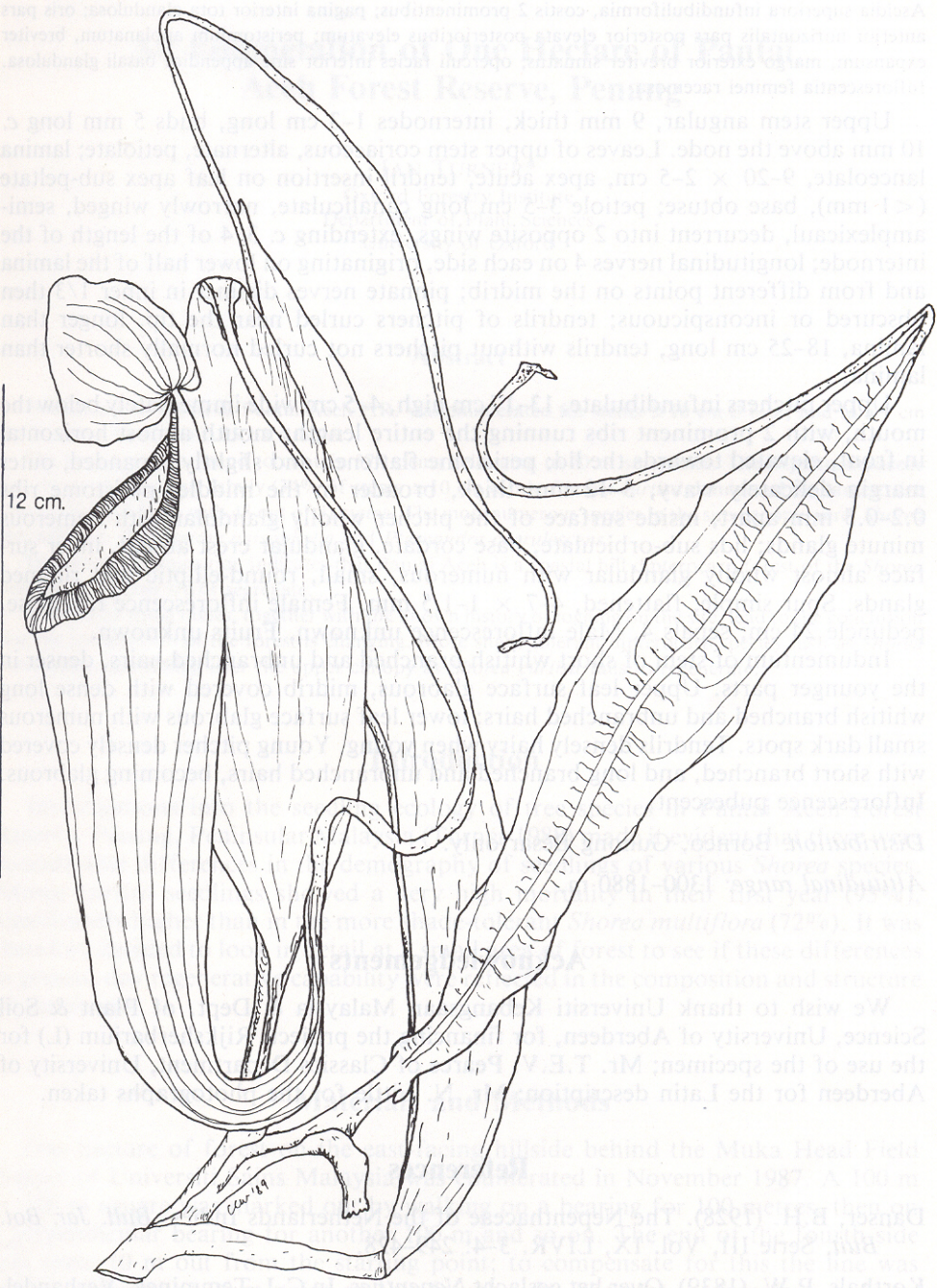


Fig. 1. *Nepenthes borneensis* Adam & Wilcock. From Murata, Kato & Mogeia, B-3455. Upper stem with leaves and pitchers.

(<1 mm), basis obtusa; petioli canaliculati alati, semi-amplexicaules decurrentes; nervi longitudinales utroque latere 4, provenientes e variis locis costae; nervi pinnati inconspicui vel distincti, subhorizontales. Ascidia superiora infundibuliformia, costis 2 prominentibus; pagina interior tota glandulosa; oris pars anterior horizontalis pars posterior elevata posterioribus elevatum; peristomium applanatum, breviter expansum, margo exterior breviter sinuatus; operculi facies inferior sine appendice basali glandulosa. Inflorescentia feminei racemosa.

Upper stem angular, 9 mm thick, internodes 1–3 cm long, buds 5 mm long c. 10 mm above the node. Leaves of upper stem coriaceous, alternate, petiolate; lamina lanceolate, 9–20 × 2–5 cm, apex acute, tendril insertion on leaf apex sub-peltate (<1 mm), base obtuse; petiole 3–5 cm long canaliculate, narrowly winged, semi-amplexicaul, decurrent into 2 opposite wings, extending c. 3/4 of the length of the internode; longitudinal nerves 4 on each side, originating on lower half of the lamina and from different points on the midrib; pinnate nerves distinct in inner 1/3 then obscured or inconspicuous; tendrils of pitchers curled near the tip, longer than lamina, 18–25 cm long, tendrils without pitchers not curled normally shorter than lamina.

Upper pitchers infundibulate, 13–17 cm high, 4–5 cm wide immediately below the mouth, with 2 prominent ribs running the entire length; mouth almost horizontal in front, elevated towards the lid; peristome flattened and slightly expanded, outer margin delicately wavy, 3–12 mm thick, broader in the middle, peristome ribs 0.2–0.5 mm apart, inside surface of the pitcher wholly glandular with numerous minute glands; lids sub-orbiculate, base cordate, glandular crest absent, inner surface almost wholly glandular with numerous, small, round-elliptic and rimmed glands. Spur simple, flattened, 4–7 × 1–1.5 mm. Female inflorescence racemose, peduncle 24 cm; sepals 4. Male inflorescence unknown. Fruits unknown.

Indumentum of stem of short whitish branched and unbranched hairs, denser in the younger parts. Upper leaf surface glabrous, midrib covered with dense long whitish branched and unbranched hairs; lower leaf surface glabrous with numerous small dark spots. Tendrils densely hairy when young. Young pitcher densely covered with short branched, and long branched and unbranched hairs, becoming glabrous. Inflorescence pubescent.

Distribution: Borneo, Gunong Besar only.

Altitudinal range: 1300–1880 m.

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References

- Danser, B.H. (1928). The Nepenthaceae of the Netherlands Indies. *Bull. Jar. Bot. Buit.* Serie III, Vol. IX, LIVR. 3–4: 249–428.
- Korthals, P.W. (1839). Over het geslacht *Nepenthes*. In C.J. Temminck, *Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen*, p. 25–28.
- Kurata, S. (1976). *Nepenthes* of Mt. Kinabalu. *Sabah National Parks Publication*, No. 2. Sabah National Parks Trustees.