Nepenthes alzapan (Nepenthaceae), a new species from Luzon, Philippines

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This paper forms a part of the studies towards a World Monograph of Nepenthes Linnaeus (1753: 955) building on a Skeletal Revision of Nepenthes (Jebb & Cheek 1997) and the Flora Malesiana account (Cheek & Jebb 2001). In the course of studying previously unseen specimens from the Philippines, four sheets (Ramos & Edanõ 45690, K, NY, UC, US), of a species previously unknown came to light from Mt Alzapan. The oblong, glabrous, ligulate, sessile leaf-blades with 5–7 pairs of nearly evenly spaced longitudinal nerves placed the species unambiguously in the Insignes group of Danser (1928) which is restricted to the Philippines apart from one species, N. insignis Danser (1928: 314), in New Guinea and, more ambiguously, N. northiana Hooker, J.D. (1881: 717) in Borneo (Cheek & Jebb 2001).

The Insignes group are also characterised by more or less broadly cylindrical upper pitchers with a length: breadth ratio of 3 or 4:1 (constricted at the waist in N. ventricosa Blanco (1837: 807) which bear a broad peristome, semi-circular in section, the inner edge of which is prominently toothed, the outer attenuating in thickness until it is membranous. The lower surface of the pitcher lid lacks an appendage. The nectar glands are usually transversely elliptic, non-perithecoidal and are absent from the midline, being restricted to two incurved lateral bands.

In the key to Philippine species of Nepenthes, Cheek & Jebb (2001) the species described below as N. alzapan, keys out as the small-pitchered N. bellii K.Kondo (1969: 653) of Mindanao. The two taxa appear similar in terms of overall dimensions of the pitchers. However, the upper pitchers of N. bellii, while broadly similar to those of N. alzapan, differ significantly in their finer peristome, and sparse lid glands (Table 1). In practice N. alzapan being restricted to Luzon, is unlikely to be confused with N. bellii, which is restricted to Mindanao. It is more likely that its leaves, stems and inflorescences might be identified as N. ventricosa, the only other species of this group in Luzon. However the upper pitchers of N. ventricosa are much larger and longer than in N. alzapan, 9–16 × 3–8 cm and hour-glass shaped, lacking fringed wings, and the lid is narrowly elliptic 4–6 × 1.8–2.25 cm.

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<th>TABLE 1. The major characters separating N. alzapan and N. bellii</th>
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<tr>
<td><strong>Stems</strong></td>
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<tr>
<td>Not winged</td>
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<td><strong>Leaf width</strong></td>
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<td><strong>Upper pitchers</strong></td>
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<td><strong>Peristome ribs</strong></td>
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<td><strong>Pitcher lid nectar glands</strong></td>
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<td><strong>Male inflorescence size</strong></td>
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<td><strong>Pedicel length</strong></td>
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<td><strong>Staminal column</strong></td>
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FIGURE 1. Nepenthes alzapan A habit, with upper pitcher and male inflorescence; B transverse section of stem at base of leaf insertion; C hairs on outer pitcher wall; D lid of upper pitcher, lower surface; E nectar glands from lower surface of lid; F peristome, view from above; G peristome, inner edge, showing teeth; H peristome, transverse section, inner edge to right; I detail of fringed wings of upper pitchers; J male flower; K rhachis indument; L tepal indument, outer surface. A–E & J–L from Ramos & Edanô in BS 45690 (NY); F–I from Ramos & Edanô in BS 45690 (K). Scale bars: single = 1 mm; graduated single bar = 2 mm and 3 mm; double = 1 cm; graduated = 5 cm. All drawn by ANDREW BROWN.
Nepenthes alzapan Jebb & Cheek, sp. nov. Type:—PHILIPPINES. Luzon, “Tayabas Prov., Mt Alzapan”, male fl. 7 June 1925, Ramos & Edanô 45690 (holotype K!; isotypes NY!, UC!, US!) (Fig. 1).

Diagnosis:—A Nepenthes bellio caulibus acute trigonis atque conspicue alatis (nec teretibus nec leviter angularibus, nec alatis), ascidiis superioribus globosis, 6.5–6.8 × 4.2–5cm, (nec infundibuliformis, 7.3–7.5 × 2–2.5cm); inflorescentia masculi 31.5–42 × 1.5–2cm (nec 10–15 × 1 cm) differt.

Description:—Terrestrial climber (probably) to at least 0.4 m tall. Stems alabaster to pale brown-coloured, acutely triangular in transverse section, 5(–7) mm diam., two of three angles extended into wings up to 3–4 mm wide, decurrent from the leaves, internodes 1.3–2 cm long, glabrous but with scattered sessile red-coloured glands. Leaves coriaceous, sessile, ligulate-oblong, (7–)8–13.5 × 1.5–2.5(–3.4) cm, apex acute, base claspers the stem for 2/3 its circumference, decurrent almost to the node below as a wing up to 4 mm wide. Longitudinal nerves 5–7 on each side of the midrib, almost evenly scattered. Pennate nerves irregular, oblique. Indumentum as stem. Lower pitchers not recorded. Upper pitchers subglobose to globose-infundibuliform, 6.5–6.8 × 4.2–5 cm, with moderately sparse appressed simple hairs 0.2–0.5 mm long; wings present only for 5–17 mm of the pitcher length, at the midpoint or apex, 1–2 mm wide, with fringed elements 1.5 mm apart, 3–4 mm long with moderately sparse simple or basally 2–3-branched hairs 0.1–0.15 mm long; mouth suborbicular, forming the broadest part of the pitcher; peristome subcylindrical to flattened, 6–10(–14) mm broad, ribs 1.5 mm apart, about 0.25 mm high, outer margin entire, revolute, inner margin dentate, teeth curved, 0.5–0.75 mm; lid elliptic, 2.5–2.7 × 2.2–2.3 cm, apex rounded, base truncate; lower surface lacking appendages, midline thickened and lacking nectar glands which occur only in two curved lateral bands, each with 35–110 glands, densest at base of the lid, where 3 per mm²; nectar glands slightly transversely elliptic or suborbicular 0.3–0.5 × 0.3–0.5 mm, with a thin marginal rim 0.05 mm thick; sessile red-coloured glands 0.05–0.07 mm in diameter, about 4 per mm², spur not recorded. Male inflorescence 31.5–42 × 1.5–2.5 cm, indumentum dense, completely covering the surface, hairs simple, bronze-coloured, 0.15–0.35 mm long; peduncle 20–22.5 cm long, 3.45 mm diam.; rhachis 11.5–20 cm long, with partial-peduncles 80–110, 1-flowered; bracts inconspicuous, at apex of inflorescence only, about 0.2 mm long, inserted 0.3–1.5 mm from junction with rhachis; pedicels 7–8(–10) mm long; tepals red, narrowly elliptic, 3.5 × 1.5–1.8 mm, lower surface and margins completely covered in sinuous thin-walled bronze-coloured hairs about 0.1 mm long, apices round; staminal column 2–2.5 mm long, with thinly scattered ± patent copper-coloured hairs 0.25–0.35 mm long; anther-head globose, about 1.5 mm diam. Female inflorescences, infructescences and seed unknown.

Etymology:—The epithet alzapan refers to Mt. Alzapan, the type locality.

Distribution & ecology:—Philippines, Luzon, Sierra Madre Mts., Mt Alzapan, submontane mossy forest, 1800 m a.s.l.

Conservation:—Nepenthes alzapan is known only from three individuals at most, at a single location on an island which has seen high-levels of habitat-loss in the twentieth century (Sohmer & Davis 2007). The species appears not to have been seen alive since 1925, and may already be extinct as is thought to be the case with N. robcantleyi Cheek (2011: 678). Nepenthes alzapan is here assessed as Critically Endangered under IUCN (2001), Criterion D. It is to be hoped that the species will be rediscovered at the type location and perhaps additional locations and that it will not prove to be so rare or as threatened as existing data suggest. However Sohmer & Davis (2007) document two other species, Psychotria alzapaniensis Sohmer & A. Davis (2007: 123) and Psychotria longissima Quisumbing & Merrill (1928: 206) which are also known only from Ramos & Edanô type specimens made in 1925 at the same location. Both species they assess as Critically Endangered, if not extinct (Sohmer & Davis 2007).
References


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Hooker, J.D. (1881) *Nepenthes northiana* sp. nov. *Gardeners’ Chronicle* II: 717.


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