



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

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Abstract

Nepenthes barcelonae is described as a new species in sect. *Insignes*, where it is unique in the inset mouth and the dichromic upper pitchers (first-produced pitchers red, later-produced pitchers green) which are also dimorphic. This is a newly recorded phenomenon in the genus: the first produced (primary upper pitchers) are red, larger, stouter, and have an uncoiled long tendril, while those later produced (secondary upper pitchers) are green, smaller, more slender, and have a coiled tendril. The only population of this species that is currently known grows in an area less than 10km² on a single mountain. Individual plants are at risk from collecting for the horticultural trade. Following the IUCN criteria, *N. barcelonae* is assessed as Critically Endangered.

Key words: Aurora Province, conservation, dimorphic pitchers, Sierra Madre range, taxonomy

Introduction

Nepenthes Linnaeus (1753: 955) is a genus of c. 140 species of carnivorous pitcher plants. Although its center of diversity is in tropical Southeast Asia, several species are known from Madagascar, the Seychelles, Sri Lanka, northern India, Indochina, and New Caledonia (Jebb & Cheek 1997).

In February 2014, the second two authors, with Julie F. Barcelona, encountered a new species of *Nepenthes* in stunted submontane forest in the Sierra Madre range in Aurora Province, Luzon, Philippines. This species is here described as *Nepenthes barcelonae*. Placement in *Nepenthes* sect. *Insignes* Danser (1928: 314), characterised in Cheek & Jebb (2013), is indicated by the oblong, ligulate, sessile, glabrous, decurrent leaf-blades and the cylindrical upper pitchers with length:breadth ratio usually in the range of 2 to 4:1, the broad peristome, semi-circular in section, the inner edge of which is toothed, the outer attenuating in thickness until it is membranous, and becoming partly appressed to the outer surface of the pitcher, and not becoming revolute. Additionally sect. *Insignes* is characterised by the lower surface of the pitcher lid lacking an appendage, the lid nectar glands are usually transversely elliptic, non-perithecoidal and are absent from the midline, being generally restricted to two incurved lateral bands.

This section is confined to the Philippines apart from one species, *N. insignis* Danser (1928: 314), in New Guinea and, more ambiguously, *N. northiana* Hooker (1881: 717) in Borneo (Cheek & Jebb 2001). Only four species have been described from Luzon and the northern Visayas of the Philippines (up to the present), of which two are found in Luzon. Of these, *N. alzapan* Jebb & Cheek (2013: 59) is the most recently described. It is distinguished by its subglobose upper pitchers with fringed wings and leaf-blades 1.5–2.5(–3.4) cm wide. It is known from a single location, also in the Sierra Madre range. The second species, *N. ventricosa* Blanco (1837: 807), is widespread in the mountains of Luzon, and numerous collections have been made. This species is distinguished by the upper pitchers being tightly constricted at their midpoint, the upper part then flaring dramatically to the dilated mouth, clearly very different from *N. barcelonae*. Other differences between the two species are set out in Table 1.

Nepenthes barcelonae is also similar to *N. burkei* Masters (1889: 492) of Mindoro and Panay and *N. sibuyanensis* Nerz (Nerz *et al.* 1998: 18) of Sibuyan. However, the apex of the pitcher tube below the peristome is straight and not