

# Observations on the *Nepenthes* species of Irian Jaya

## Part I: *Nepenthes insignis* Danser

by

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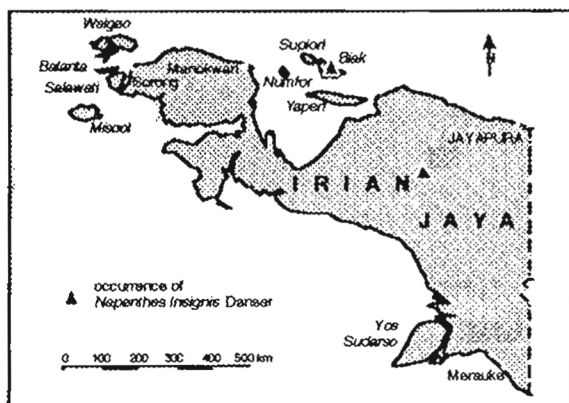
In 1994 a field trip took a group of four people (by name: W. Baumgartl, B. Kistler, H. Rischer, A. Wistuba) to New Guinea, strictly speaking to Irian Jaya. This is the western part of the island, belonging to Indonesia.

Travelling there is very troublesome, because there are not only few roads but also many restricted areas. One needs a special travel permit, too, which is difficult to get. Last but not least one has to be in good form for the tough trekking and the recurrent river-crossings.

The aim of the tour was to find out more about the less known *Nepenthes* species occurring there. In fact most of the species were found - probably because of the extensive previous planning. In a series of articles the findings will be presented.

*N. insignis* was described in 1928 by Danser using exclusively herbarium specimen. Already in 1912 Pulle collected the type specimen (Pulle 277) and later expeditions brought similar material of the species endemic to New Guinea. It seems that nobody caught sight of a living plant since that time, therefore some things remained obscure e. g. the exact habitat and even the colour of the plant (1 and 2).

Map: *N. insignis* in Irian Jaya:



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On this trip the species was found from 115 m alt. in the southern part of the Lake Plains region (restricted area, see also map). The plants grew as epiphytes on high trees and therefore they were easier found along rivers (Fig. 1). They rooted in the thick moss layer covering the trunks. Also in the dense forest single fallen off pitchers pointed out the occurrence in the canopy. Last hints were found in the foothills at about 800 m alt. Here the plants grew in the sediment along the river.

Amazingly all plants found were about the same size i. e. stems were about 50-80 cm long. The lower and upper pitchers were clearly dimorph but both were very huge, up to 30 cm. The lower pitchers were dark green with red spots in the upper part,

with a crinkled brown peristome which was very solid (Fig. 2). In the lower half they were ovoid, in the upper part cylindrical. Contrary to Dansers description two coarsely fringed wings were clearly visible. The shape of the lid was orbiculate to broad cordate, up to 8cm long, the underside often had a redish colour. The upper pitchers were yellowish green with fewer spots but the same brown peristome (Fig. 3). They were infundibulate in the lower part, becoming also cylindrical in the upper part. Below the peristome they had two short wings (up to 3 cm long), sparsely fringed, which continued in two ribs. The lid had the same shape as described above but the colour was green. Another identification character is the decurrent leaf base (for more morphological data see 1).

Only one flowering plant was found. The inflorescence was a raceme with 2-flowered peduncles. The seed was already ripe and germinated in the capsule because of the high humidity caused by a small waterfall.

It was very interesting to see that the prey in the pitchers consisted nearly completely of big winged cockroaches. Presumably these were nocturnal insects - attracted by odour.



Fig. 1. Habitat of *N. insignis* Danser at about 100 m alt. (Lake Plains). Photo by H. Rischer



Fig. 2. Lower pitcher of *N. insignis* Danser. Photo by H. Rischer



Fig. 3. Young upper pitcher of *N. insignis* Danser. Photo by H. Rischer

Sympatric *Nepenthes* species in this area were: *N. ampullaria* Jack; *N. maxima* Reinw. ex Nees (from 400 m! alt. on); *N. mirabilis* (Lour.) Druce (hybrid with *N. insignis* observed at about 500 m alt.); *N. papuana* Dans. ? (determination is doubtful, few plants found at 575 m alt.).

Danser already supposed that *N. insignis* would have a larger distribution - this is proven now. The species could be found on the island of Biak (Cenderawasih Bay) at about sealevel. The plants correspond in all respects but are generally somewhat smaller.

### References:

1. Danser, B. H. (1928): The *Nepenthaceae* of the Netherland Indies. Bulletin du Jardin botanique de Buitenzorg, Ser. 3, 9, Liv. 3-4, 249-438.
2. Jebb, M. (1991): An account of *Nepenthes* in New Guinea. Science in New Guinea, 17 (1), 7-54.



Fig. 4. Pitchers of *N. insignis* Danser - an endemic species of New Guinea. Photo by H. Rischer

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## Want Ads

**J. Yeo** ( 60 Toh Tuck Road, #02 - 08, Singapore 2159, Tel/Fax 65-463-5538)

Would like to Correspond with fellow *Nepenthes* growers and swap *Nepenthes* seed.

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## TWO NEW SPECIES OF NEPENTHES FROM NORTH SUMATRA, INDONESIA

by

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