## Nepenthes Veitchii

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Nepenthes veitchii Hook, f. occurs in the northwest to north central area of the island of Borneo, including Sarawak and western Sabah and in Malaysia and northern Kalimantan, Indonesia.

It was first described in 1858, and in Danser's now classic monograph it is placed within the *Reoiae*, a more or less natural group within the genus containing some of the largest and most spectacular species.

Two distinct forms of the plant are known: One from lowland areas near sea level in western Sabah, and the other confined to moderate altitude mossy-forests to around 5000 foot elevation in northern Kalimantan. Intermediates of the two may exist but at present are not positively identified. The main differences are listed below:

Lowland Highland

leaves: lanceolate, gradually originating oblong, abruptly originating from stem, leaf margins in one plane. stem, leaf margins ruffled.

stem, leaf margins in one plane. stem, leaf margins ruffled. petiole: indistinct. stem, leaf margins ruffled.

peristome: generally green, blushing green or striped, blush-pink or

pinkish or brown with age. reddish with age.

Trichomes: very fine or absent. all plant parts covered with coarse hair to nearly .25 inch in length.

Locally common in some areas of its range, the species is frequently overlooked due to its habit of growth. In the habitat, the plant occurs as either epiphyte or terrestrial. The lowland form prefers areas of high humidity and may be found in diptocarp trees overhanging rivers, or rooted terrestrially in iron ore derived soils and on white sand soils (highland form) with the stems climbing nearby trees. Plants are also found on ultrabasic derived clay, decomposed granitic and sandstone derived soils. One plant was seen covering a tree stump of a logged tree, (B. Sutton, personal communication, July 15, 1990).

The growth habit is unusual and well designed for an epiphytic existence. Seeds are wind distributed, and upon settling on a proper habitat such as a mossy fork of a tree, seedling plants develop into a rosette of leaves typical of juvenile *Nepenthes*. However, as the plant matures the leaves begin to take on a 180 degree orientation and to creep along branches. This orientation distributes the weight of the pitchers on either side of the branch giving such a heavy plant greater stability. More unusual is the habit of some plants to climb straight up a tree trunk, clasping the trunk with their alternating leaves as they ascend.

## Cultivation

Cultivation of the lowland form of *N. vietchii* is relatively easy. The plant is very adaptable to a wide range of conditions. However, the following culture method has been quite successful over at least a five year period. The highland form is more difficult and differences in its culture are noted where applicable.

Container: Does well in most open containers. Slatted orchid baskets made of cedar or galvanized metal. (lined with plastic mesh to hold media) work well. The lowland form does well in a plastic pot although care should be taken to insure drainage and aeration of the media.

Media: Must be open and well drained. Equal parts fine fir bark, charcoal, and

treefern are a good basic mix, roughly equivalent to media for moisture loving epiphytic orchids. It should not dry completely between waterings.

Water: up to 140 ppm has not proven to be harmful if media is well flushed; however, plants do far better with pure water and media will last much longer.

Temperature: from 45 degrees F. (for short periods only) to 100 degrees F. in the lowland form, more critical if some fluctuation. 82 degrees F. maximum for the highland form with night temperatures in the mid 50s. This day-night, warm-cool temperature cycle is critical in highland montain Nepenthes and should be a constant parameter for successful cultivation.

Lighting: Bright filtered light for the lowland form, somewhat more shade for the highland form, especially in hot sunny weather.

Humidty: High, but with good air circulation.

Growth: This is the greatest drawback of the species. N. veitchii grows at roughly half the rate of most species. Seed may take six to eight months to germinate (C. Powell, personal communication, July 1990). A seedling may take up to five yars to begin to produce adult pitchers and long to fully nature and flower. The pitchers of the immature plants are not spectacular and resemble those of N. mirabilis. The plant is compact for a Nepenthes with short internodes and is manageable in a relatively small space for long periods.

Flowering: In cultivated plants this occurs mid summer. Male plants may produce two or more racemes in succession per growth head, females usually one. Seed development takes approximately 2-3 months with 500-1000 seeds per raceme. The species hybridizes well but does not seem to be dominant in the offspring.

N. veitchii is well worth cultivating. Its unusual growth habit and huge peristomes make it a standout. Sadly, in the wild as an epiphyte, it may one day go the way of the trees it makes its home.

## References

- 1. Danser, B.H. (1928) The Nepenthaceae of the Netherlands Indies. <u>Bull. Jaro. Ot. Equitenz.</u> Ser. III: Vol. IX; Liv. 3-4. pg. 391-93, 411-12.
- 2. Phillipps, A. and Lamb, A. (ct. 1988) Pitcher-Plants of East Malaysia and Brunei. Nature Malaysiana. ISSN 0126-5318. pp. 144/12/87 Vol. 13 No. 4 pp. 18.



Highland form of N. veitchii with striped peristome



A Cuban Treefrog
Osteopilus septentrionalis
peers from a pitcher of Nepenthes veitchii
where it sojourns during daylight hours.



Lowland form of *Nepenthes veitchii* with immature male inflorescences



Close up of pitcher of highland form