

XI. NOTES ON THE DISCOVERY OF
RAFFLESIA HASSELTII SURINGAR (RAFFLESiaceae)
IN TAMAN NEGARA (NATIONAL PARK), MALAYSIA

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SUMMARY

Rafflesia hasseltii Suringar was discovered in the vicinity of Sungai Pelenting in Taman Negara, Pahang, with a population of about 20 buds and a few flowers in full bloom. This is the first confirmed report of the species for the National Park, Malaysia.

INTRODUCTION

Rafflesia hasseltii Suringar was first described in 1879 from Sumatra. According to Meijer (1997) the species is known only in West Sumatra, especially in Jambi and Muara Labu areas and Peninsular Malaysia. In the last 10 years only two localities of the species were located in West Sumatra, it thus apparently is very rare. Morphologically it is most similar to another Sumatran species, *R. gadutensis* Meijer, but according to Meijer (1997) differs from it by the 4 or 5 large white warts across the base of the perianth lobes, the diagram with only one basal ring of dark brown warts, and about 20 anthers. *Rafflesia gadutensis* has 10–12 whitish-pinkish large warts and some smaller ones in between across the base of the perianth lobes, a diagram with c. 30 radial rows of white blots close to the rim, and c. 30 anthers.

The name *R. hasseltii* has been misapplied in Peninsular Malaysia more than once. Ridley (1924) listed it as the only species for Peninsular Malaysia. Meijer (1983) reported its rediscovery in the Sg. Siput area of Perak. Looking at the figures, it is obvious that the species in question is not *R. hasseltii* but *R. cantleyi* Solms.

Wong (1990) observed a population of the same species in an undisclosed locality in Perak. For Peninsular Malaysia, Latiff & Mat-Salleh (1991) recorded two species, *R. cantleyi* and *R. kerrii* Meijer. The former is more widely distributed and up to 1984 considered by the above authors to be identical with *R. hasseltii*. The latter is rare and has been recorded only for the slopes of Bukit Tepoh on the Kelantan-Thailand border, Gunung Chamah, on the Kelantan-Perak border (Wong, 1992), and from a site now destroyed by logging near Penkalan Hulu, Keroh, Perak, close to the border with Kedah (Wong & Latiff, 1994).

Until 1993, it was thought that there were only two species of this magnificent plant with gigantic flowers in Peninsular Malaysia. On 2 September 1993, a startling discovery of a third species, the true *R. hasseltii*, was made in the Temengor Forest Reserve, Hulu Perak. The specimens were found and photographed by Mr. John Dawn, Kok Swee Ngor,

and Marcus Eale during the Malaysian Nature Society's Heritage and Scientific Expedition to Belum, Perak (Latiff et al., 1995). Orang Asli reported to have observed similar flowers in the vicinity of Kg. Samlor and Kg. Tekam, also in Perak. Another observation of the species was made by Mathew Wong in 1994 on the slopes of Gunung Ulu Sepat, Perak (summit c. 2363 m above sea level), some 50 km from the Temengor locality. This female colony had about twenty buds, one open flower, and one fruit (Wong & Latiff, 1994).

The third and more significant population of *R. hasseltii* in Peninsular Malaysia was discovered on 20th June 1997 by En. Abdul Kadir Abu Hashim, a staff member of the Department of Wildlife and National Parks (PERHILITAN), while on his rounds surveying the Sumatran rhinoceros in Taman Negara, Pahang. He reported the sighting of about 20 buds of *bunga patma* with some in full bloom in the vicinity of Sg. Pelenting, a tributary of Sg. Tahan, Pahang. The area is about 4 days walking distance from Kuala Tahan. From the study of good photographs, the authors have no doubt that this is the same species as reported from Sg. Halong, Hulu Temengor Forest Reserve, and later from Gunung Ulu Sepat. Therefore it represents the third record for *R. hasseltii* in Peninsular Malaysia but, more importantly, this is within Taman Negara (National Park), the largest protected forest area in Peninsular Malaysia.

MORPHOLOGY OF RAFFLESIA HASSELTII

Flowers c. 42–46 cm diam. Perianth lobes about 10–13 by 14–18 cm, with about 7–9 large white pustules across, ranging from 7–10 by 1–3 cm, coalescing across the perianth; lobes manifestly hairy on the outside, orangeish when young and chocolate-brown when old; margin revolute. Processes c. 20, coloured like the disk. Lower surface of the corona with numerous bristles. Ramenta linear with swollen apices.

Habitat — Primary lowland dipterocarp forest to lower montane forest, c. 400 m alt.

Note — This species is characterized by large pink blotches on the perianth that coalesce. Another characteristic of the flower is that the perianth lobes are thick, oblong and manifestly revolute. For a full description see Meijer (1997).

Its possible host is *Tetrastigma leucostaphylum* (Dennst.) Mabb. [formerly *T. lanceolarium* (Roxb.) Planch.; *Vitaceae*].

TAMAN NEGARA (NATIONAL PARK) AS A SANTUARY FOR RAFFLESIA HASSELTII

The three species of *Rafflesia* in Peninsular Malaysia are unevenly distributed. While *R. cantleyi* has been recorded in the states of Perlis, Kedah, Perak, Kelantan, Terengganu, and Pahang (including Pulau Tioman), the other two are very localized as far as we know at present. *Rafflesia kerrii* is known only from Gunung Chamah on the Kelantan-Perak border and Gunung Brinchang at Cameron Highlands (Pahang) and *R. hasseltii* is now known from the three localities mentioned above.

The rediscovery of the species in the National Park as reported here is considered very important because it is the only verified observation within the protected area, Taman

Negara. Previously, Mr. Jasmi Abdul (pers. comm.) reported the sighting of *Rafflesia* buds in the vicinity of a tributary of Sg. Sat at the foot of Gunung Gagau but the identity of the species could not be verified as the population consisted of buds. Identification of species of *Rafflesia* in Peninsular Malaysia is only possible by observing the white blotches on the perianth when in full bloom. Considering the protective nature of Taman Negara, it is now possible to declare it as the sanctuary for *R. hasseltii*.

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