

papery, ovate, enclosing 4 to 7 flowers on pubescent pedicels 1.5 cms. long.

Calyx cylindric, 3-lobed, rather longer than the corolla tube, glabrous except for the pubescent tips of the lobes. Corolla tube 1.4 cms. long, pubescent, with a ring of long hairs at the base. Petals 2 cms. long, ovate lanceolate, blunt, hairy on the back, the upper lobe hooded and with a conspicuous spur. Lip large, quite glabrous, 2.7-3 cms. long, 3 cms. broad; side-lobes rounded, mid-lobe bifid, the lobes truncate; margin of lip crisped; two patches of claret colour on the side lobes not reaching the margin, and a number of violet-black lines in the centre of the lip above the mid-lobe. Staminodes two, conspicuous, bilobed, adnate to the base of the stamen and lip. Stamen glabrous, the connective prolonged into a short crest.

Capsule globose, puberulous, about 2 cms. in diameter and crowned by the persistent calyx.

Negri Sembilan: Gemas, I. H. Burkill 4980, August 1919.

Pahang: 126th. mile, Kuantan Road, between Sungai Lepar and Sungai Ketam, and at Sungai Luit, I. H. Burkill and Md. Haniff 17210, 17461, November 1924.

A New Fern from the Malay Peninsula.

Syngamma minima, *Holttum* sp. nov.

Rhizoma repens, tenue, pilis nigris nitidis vestitum. Stipites approximati, 5—15 mm. longi. Frondes rigidae, in sicco fragiles, glabrae, 1—4 cm. longae, 5—8 mm. latae, obovatae vel oblanceolatae, apice rotundatae, basin versus sensim angustatae, margine cartilagineae denticulatae. Costa utrinque vix prominens; venae simplices vel furcatae, liberae vel sub margine anastomosantes, fere obscurae. Sori 1-2 mm. longi, ad venas terminales.

Gunong Pant, Johore, Holttum 17498.

This small fern grows side by side with *S. borneensis* on sandstone rocks at the top of the ridge of G. Pant, at an altitude of about 1600 feet above sea. It somewhat resembles the young plants of *S. borneensis*, but is distinguished clearly from its earliest stages by the shape of its leaves and by its less densely tufted habit. The shorter leaves are often quite as broad as the longer ones, and leaves hardly more than 1 cm. in length may be fertile. The leaves on young plants are more deeply toothed than those produced later. The species is allied to *S. Dayi*, but has much shorter and broader

leaves; *S. Dayi* also lacks the toothed cartilaginous edge. It is curious that both *S. minima* and young plants of *S. borneensis* on G. Pantl are parasitised by a scale insect, such being uncommon on wild ferns in this country.

Notes on Malayan Ferns

1. *Dipteris Lobbiana*.

This interesting fern has a wide distribution in Malaysia and is quite abundant, at least over part of its range, but probably because of its peculiar habitat it was not often found by the earlier collectors. In Christ's *Farnkräuter der Erde* (1897) it is said to be a rare plant. Its collection on Mount Ophir by Lobb, together with *Matonia pectinata*, with which it probably has a common ancestry, has associated the names of the two ferns together, though in nature they do not grow side by side. *Matonia pectinata* is found on the exposed summits of a number of the highest mountains in the Malay Peninsula and at lower altitudes on some of the small islands to the south of it; *Dipteris Lobbiana* is found only on rocks by the sides of forest streams, often quite in the low country. It has been found plentifully by several streams in Johore, as well as on Mount Ophir, and also further north in Pahang (Tahan River and Sungei Perting, Bentong), in Perak (abundantly in the Palas River on Gunong Bujong Malacca, and at other localities not specified) and as far north as Kedah Peak. In Borneo Bishop Hose has stated that it is found "on the banks of most rivers in Sarawak and North Borneo at some distance above the highest point to which the influence of the tide extends." van Alderwerelt van Rosenburgh gives the distribution "Malaya," a term to which he attaches a wide meaning. Copeland records it as occurring in Celebes, but the writer has seen no published record of its occurrence in Sumatra or Java, though the former is not unlikely. It is not found in the Philippines.

The present writer has seen this fern three times, on all occasions in Johore; by the Sungei Berhidong, north of Gunong Belumut, at about 450 feet above sea level, by one of the streams flowing southwards from Gunong Pulau (see accompanying plate), at a similar altitude, and in the Pelepah valley near Kota Tinggi. In descending the first-named stream from about 1600 ft., *Dipteris* was not observed in the steeper more shaded upper reaches, but appeared where the course became more level and open. The beds of all three streams are filled with granite boulders of greatly varying size; the fern grows over the boulders, its rhizomes clinging tightly to them. Sometimes by the side of the stream the boulders are covered with sand or silt, and in this case the rhizome is not