m, Hirano & Hotta 445; northeastern slope of Bt. Kana, alt. 600-850 m, Hirano & Hotta 1330.


SARAWAK. Bintulu Dist.: along S. Latai, a small branch of Ulu S. Kakus, Hirano & Hotta 774; along S. Bejangang, a branch of S. Anap, Hirano & Hotta 1191, Hotta 15550, 15574.


BRUNEI. Brunei Tembr.: eastern slope of Bt. Bangar, alt. 10-20 m, Hotta 13088. Brunei Dist.: east of Brunei Town, alt. 10-50 m, Hotta 13054.

SARAWAK. Bintulu Dist.: near Minah Camp, along S. Minah, S. Kakus, alt. 10-20 m, Hirano & Hotta 327; along S. Bejangang, a branch of S. Anap, Hirano & Hotta 1196, 1201. Mardi Dist.: along S. Melinau, from S. Tutoh to Rubang Bungan, at foot of G. Mulu, Hotta 14375.

All the materials cited above are rather constant in every taxonomic feature. The pubescences on the laminae are short, less than 0.1 mm long, patent or subappressed in dried specimen, variable in density. Hirano & Hotta 327 and 1201 are slightly different in having subcostular to medial sori and subglabrous under surface of lamina.

28. Thelypteris sp.

SARAWAK. Bintulu Dist.: along S. Bejangang, a branch of S. Anap, Hirano & Hotta 1191 bis.

This is a sterile frond having lower reduced pinnae and dense hairs throughout the plants.

Tectaria variolosa in Taiwan

From Taiwan T. ctaria variolosa was reported twice by BAKER (Gard. Chron. n.s. 14: 494. 1881, on the basis of Maries s.n.; Journ. Bot. 23: 105. 1885, on the basis of Hancock 95) as Nephrodium variolosum (Hook.) BAK.; his records were subsequently cited by MATSUMURA (Ind. Pl. Jap. 1: 327. 1904, as Nephrodium variolosum) and by MATSUMURA et HAYATA (Enum. Pl. Formos. 578. 1906, as Nephrodium variolosum). Although BAKER's materials have not been examined by the writer, they were referred to T. variolosa by CHING. NAKAI (Bot. Mag. Tokyo 47: 168. 1933) also recorded T. variolosa for Taiwan and Okinawa under the name of Sagenia variolata MOORE, but unfortunately his materials are all represented by T. phaeocaulis (Ros.) C. Chr., a synonym of which is T. laciniata (CHING) CHING. Rather small fronds of T. phaeocaulis resemble indeed T. variol-
losa in appearance, and sometimes both species are represented on the same sheet, Eberhardt s.n. from 'massif du Tam Dao, Tonkin' in KYO being an instance.

Aspidium subtriphylum f. cuspidato-pinnatum HAYATA is a taxon published without any formal description; HAYATA (loc. subter cit.) mentions only as follows: "This fern is extremely variable. Our specimens here figured are so widely different from the type of A. subtriphylum that it should otherwise claim to be distinct species". It is therefore a nomen nudum though accompanied with rather detailed illustrations. NAKAI was right in recognizing it as a separate species but erred in his identification. The type gatherings of this taxon (Miyake s.n. from Botansha) appear to me to be T. variolosa. The shape and pinnation of the blades, the costal and costular areolae usually free from included veinlets, the rather contracted fertile fronds with slightly impressed, mostly apical sori arranged in one row on each side of costules, these features seen in the type collections are all enough to attribute this taxon to T. variolosa. The synonymy is as follows:

Aspidium variolosum WALL. ex Hook. Sp. Fil. 4: 51. 1862. Type from North India.

Tectaria cuspidato-pinnata (HAYATA) C. CHR. Ind. Fil. Suppl. III. 178. 1934. All nom. nud.

From North India east to Taiwan and south to Malaya, also reported from Java but rather dubious. In Taiwan T. variolosa on the whole seems to be confined to the southern part where it is rarely found in the lower hills, the following specimens being the only ones examined by the writer:

Prov. Takao: Bankinsing, in rupibus, Fairie 70 (KYO, TI); prope Botansha, K. Miyake s.n., 9. I. 1900 (TI). (M. TAGAWA)

Two ferns new to Taiwan


Central Taiwan. Prof. Nantou: Chingshui to Hsienshih, south of Chichi, alt. 300-500 m, Shimizu 10280 (KYO).

When and in what way was this well known and almost pantropical fern introduced into Taiwan is impossible to say.

Humata vestita (BLUME) MOORE, Ind. Fil. xcii. 1857.

South Taiwan. Prov. Taito: between Syussuiha and Sinsuiei, Taito-gun, on tree trunks in laurisilvae at ca. 1000 m alt., Tagawa 2357 (KYO).

Hitherto known from Malaysia, Malaya and the Philippines. The Taiwan examples are rather small, blades 5 by 4 cm to 10 by 7 cm on stipe 3-9 cm long, bipinnate to shallowly tripinnatifid at the base. Comparing with a number of specimens from Malaya and Java, I can find no particular distinctions in Taiwan examples.

(M. TAGAWA)