

ON THE IDENTITY AND DISTRIBUTION OF *VITTARIA AMBOINENSIS* FEÉ AND *V. SCOLOPENDRINA* (BORY) THW.

R. D. DIXIT

Botanical Survey of India, Allahabad

ABSTRACT

Indian material of the genus *Vittaria* J. Smith earlier reported as *V. scolopendrina* (Bory) Thw. by various workers represents *V. amboinensis* Feé. *V. scolopendrina* (Bory) Thw. does not occur in India. Detailed description of *V. amboinensis* Feé, has been given. However, to facilitate easy identification, key and illustrations of both the species have been provided.

During the course of taxonomic studies on the genus *Vittaria* J. Smith in India, the author had an opportunity to examine the herbarium specimens identified as *V. scolopendrina* received from various herbaria in India alongwith the material from Sri Lanka and Malaya. The studies revealed that the Indian material is characterised by the presence of superficial sori and is markedly different from the specimens from Sri Lanka and Malaya, where the sori were found to be in a groove, and which in the author's view represented the true *V. scolopendrina* (Bory) Thw. These observations were further confirmed by Dr. Panigrahi, then Regional Botanist at Royal Botanic Gardens, Kew. He identified the Indian material as *V. amboinensis* Feé and confirmed the identification of Sri Lanka and Malaya as *V. scolopendrina* (Bory) Thw. Hence, *V. scolopendrina* (Bory) Thw. does not occur in India and the earlier reports of this species from India by Beddome (1883), Ching (1931), Bir (1962), Mehra and Bir (1964) have to be treated as *V. amboinensis* Feé.

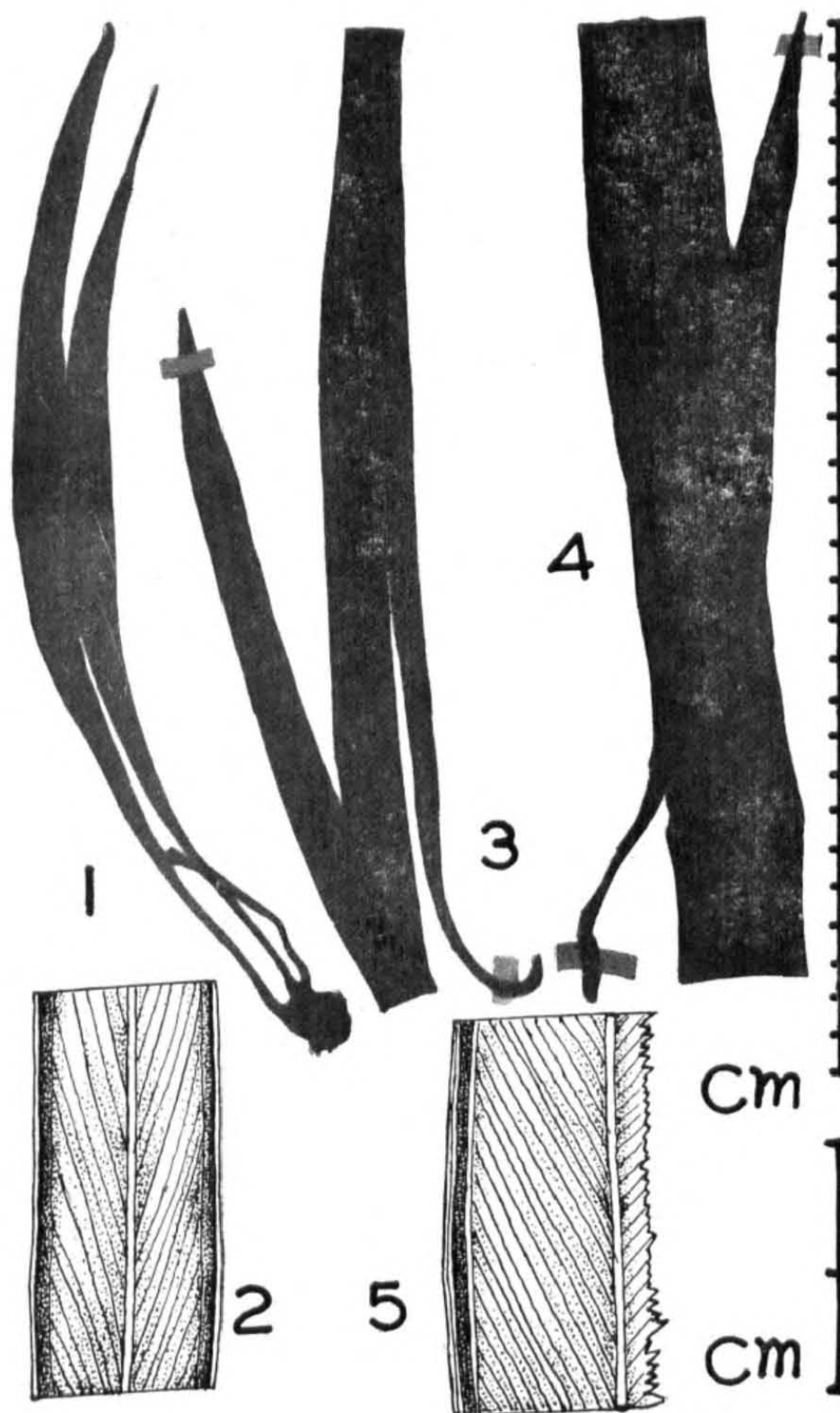
In this paper a key to the species, nomenclatural citations, detailed description and illustrations are given to differentiate the two species.

Fronds stipitate, elliptic-lanceolate, 28-78 × 1.2 cm, sub-coriaceous, margins plane to slightly reflexed; sori superficial. ... *V. amboinensis*
 Fronds sessile, scolopendroid, 35-100 × 1.5-4 cm, leathery; margins broadly reflexed; sori immersed in a groove having both the edges connivently produced. ... *V. scolopendrina*

Vittaria amboinensis Feé, 3 Mém. 14 t. 1. f. 1. 1851-1852. *Taeniopsis amboinensis* (Feé) Bedd., Ferns Brit. Ind., t. 117. 1866. *Vittaria scolopendrina sensu* Bedd., Handb. Ferns Brit. Ind., 408. 1883 (*pro parte*, excl. t. 241. 1883, *non* Thwaites, 1864).

Rhizomes thick, creeping to sub-erect; scales dark-brown to black, clathrate, ovate-lanceolate, 4.0-5.5 × 0.6-1.0 mm, subulate at apex, margins dentate. Fronds tufted; stipes long, 4.5-14.0 cm, terete; lamina elliptic-lanceolate, 28-78 × 1.2 cm, smaller ones subfalcate, long attenuate at base; apex acute to acuminate; margins plane to slightly reflexed; midrib distinct in the 2/3rd portion on the undersurface, gradually becoming indistinct above. Sori intramarginal, superficial; paraphyses funnel-shaped. Spores monolet, 30-65 μm, verrucoid. (Figs. 1-2).

Specimens examined: SIKKIM—1883, King 396, two specimens on the margins, the third one in the centre represents *V. flexuosa* Feé; Sikkim Valleys, 14.9.1883. *Levinge*



Figs. 1-5: 1-2. *Vittaria amboinensis* Feé. 1. Habit, *Gamble* 5632A. 2. Part of leaf enlarged showing soriferous region, drawn from *King* 396. 3-5. *V. scolopendrina* (Bory) Thw. 3. Habit, leaf not much broad, Sri Lanka, *Thwaites* 1304. 4. Habit, leaf much broad, Malaya, *Scortechini* 719. 5. Part of leaf enlarged showing soriferous region, drawn from *Wray Jr.* 1726 (CAL).

s. n., Accession nos. 24974, 24975; 1871, Munsong, ± 1000 m, 7.5.1909, *Kari* 1269 (CAL). *Levinge* s. n. (DD); Andheri Khola, ± 1000 m, 5.8.1958, *Bir* 1112 (PAN); WEST BENGAL—Darjeeling, Mongpu peak, ± 1000 m, Sept., 1875, *Gamble* 5632A (CAL).

Distribution: India (Sikkim, West Bengal—Darjeeling), Bhutan, Burma, China (Tonkin), Vietnam, Malay Islands.

Vittaria scolopendrina (Bory) Thw. Enum Pl. Zeyl. 381, 1824; Bedd., Handb. Ferns. Brit. Ind., t. 241. 1883. (*pro parte* descrip.). (Figs. 4-5). *Pteris scolopendrina* Bory. Voy. 2: 323. 1804; Willd., Sp. Pl. 141. 1810. *Haplopteris scolopendrina* (Bory) Presl, Tent Pterid. 141. t. 5. f. 21. 1836. *Taeniopsis scolopendrina* J. Smith, Journ. Bot. 4: 67. 1841; Bedd. Ferns South. Ind. 72, t. 212. 1865. *Vittaria zeylanica* Feé, 3 Mém. 15 t. 1. f. B. 1851-52.

Specimens examined: SRI LANKA: *Thwaites* 1304, two specimens (DD); Thomas Moor's Ferns Herbarium, 1885 (CAL). MALAYA PENINSULA: August, 1880, *King's collector*, 511; Perak 1888, *Wray Jr.* 1726; May 1884, *Father Scortechini* 719 (CAL). PHILIPPINE ISLANDS: Laguna: Luzon, June 1912, *Ramos* 14930; Negros oriental, Dumaguete Cuernos Mountains, March, 1908, *Elmer* 9718; June 1908, *Elmer* 9963 (CAL).

Distribution: Africa, Philippines, Malay Peninsula, Malesian Islands, Polynesia, Sri Lanka.

REFERENCES

- BIR, S. S. Taxonomic account of the Indian species of genus *Vittaria*. *Res. Bull. (N. S.) Punjab Univ. Sci.* 12: 17-26. 1962.
- CHING, R. C. The studeis of Chinese ferns VI, Genus *Vittaria* of China and Sikkim-Himalaya. *Sinensia* 1 (12): 175-199. 1931.
- MEHRA, P. N. AND S. S. BIR. Pteridophytic flora of Darjeeling and Sikkim Himalayas. *Res. Bull. (N.S.) Punjab Univ.* 15: 69-181. 1964.