

sequent workers from the present area. However, distribution of this species in India is given below:

C. B. Clarke (1879) in J. D. Hooker's 'Flora of British India' gives its distribution as: 'HIMALAYA, alt. 2000-6000 ft.; from KUNAWUR to BHOTAN, frequent. KHASIA MTS. alt. 3000-4000 ft.; H. f. & T. Throughout CHOTA NAGPUR, alt. 1000-4200 ft.; C. B. Clarke'. Gamble (1919) reported it from N. Circars, hills of Ganjam. Besides, it has also been reported from various parts of Madhya Pradesh: Bori R. F., Hoshangabad district (Joseph, 1963); Amarkantak (Saxena, 1970); Patalkot (Saxena & Shukla, 1970); Bhopal & Pachmarhi (Oommachan, 1977).

Its citation is as follows:

Begonia picta Sm. Exot. Bot. 2: 81. t. 101. 1805; C. B. Clarke in Hook. f. Fl. Brit. India 2: 638. 1879; Gamble, Fl. Pres. Madras 3: 545. 1919.
Illustrations: Collett, Fl. Simlensis 202. f. 61. 1921 (second impression).

Specimen examined: Saptashringi top, temple area, Nasik district, Cherian 104627, September, 9, 1966 (Flowers & fruits).

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REFERENCES

- CHERIAN, P. J. AND R. D. PATASKAR. Contributions to the Flora of Saptashringi and Adjoining Hills, Maharashtra. *Bull. bot. Surv. India* 11 : 23-34. 1969.
COOKE, T. The Flora of the Presidency of Bombay. London. 1903.
GAMBLE, J. S. Flora of the Presidency of Madras. London. 1919.
HOOKER, J. D. Flora of British India. London. 1879.
JOSEPH, J. A contribution to the Flora of Bori Reserve Forests, Hoshangabad District, Madhya Pradesh. *Bull. bot. Surv. India* 5 : 289. 1963.
OOMMACHAN, M. The Flora of Bhopal. Bhopal. 1977.
SAXENA, H. O. The Flora of Amarkantak (Madhya Pradesh). *Bull. bot. Surv. India* 12 : 48. 1970.
— AND S. G. SHUKLA. On a Collection of Plants from Patalkot (M.P.). *Ibid.* 12 : 193. 1970.

LINDSAEA PARASITICA (ROXB. EX GRIFF.) HIERON.

—A FERN NEW TO INDIA

During a detailed study of the genus *Lindsaea* Dryand. ex Smith from India, the authors came across a specimen from Nicobar Islands which has been identified as *L. parasitica* (Roxb. ex Griff.) Hieron. so far known from Malay Peninsula, Malesian Islands and Thailand but hitherto not reported from this country. The specimen was compared with the several Malayan specimens of the species in the Central National Herbarium (CAL) including a Wallichian sheet [No. 153]. The identity was further confirmed by Prof. K. U. Kramer during

his visit to the Central National Herbarium, Howrah in the year, 1977. This is an addition to the 16 species and 3 varieties of the genus already reported from India (Beddome, 1883; Kramer 1968, 1971, 1972; Ghosh and Dixit, 1978). The species is described in detail with illustrations to facilitate its easy identification.

Lindsaea parasitica (Roxb. ex Griff.) Hieron. Hedwigia 14: 62. 1920. *Vittaria parasitica* Roxb. ex Griff., Calcutta Journ. Nat. Hist. 4: 510. 1844. *Lindsaea scandens* Hook., Sp. Fil. 1: 205 t. 63B. 1846;

Bedd., Ferns Brit. Ind. 2. t. 298. 1868;

Handb. Ferns. Brit. Ind., 74. fig. 37. 1883.

Rhizomes thick, 2-3 mm in diam., long climbing; scales 2-3 × 1.0-1.5 mm, many, dark-brown, fragile, ovate-lanceolate, ending in terminal gland. Fronds simple to bipinnate from the same rhizome. Stipes 4-23 cm, shining, stramineous to light brown, terete; lamina 20-42 cm long, dark green, subcoriaceous, oblong-lanceolate in the bipinnate fronds with 1-4 (-6) pinnae to a side; pinnae 1.5-2.0 cm apart, elliptic lanceolate, 9.5-20.0 × 1.5-35.0 cm; pinnae/pinnules nu-

merous, close, the largest spreading horizontally, the lower ones slightly deflexed in the middle; pinnules 0.8-1.8 × 5-10 mm, oblong, with rounded apex, the lower edge slightly ascending near the base, then spreading horizontally (decurved in lower pinnae), the upper edge almost parallel to the lower edge; sterile ones with wavy margins; veins free, forked, distinct on the lower surface. Sori continuous; indusium pale brown, ca. 0.3 mm wide, entire, slightly away from the margins. Spores 22-30 μ m, trilete, yellowish, granulose (Figs. 1-3).

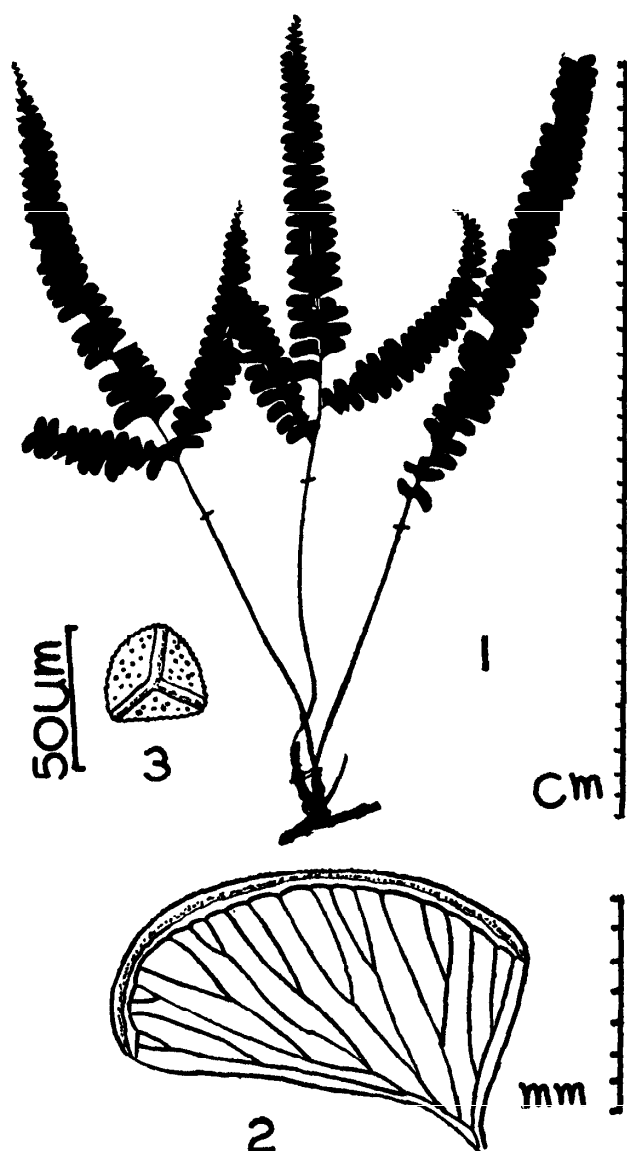
Specimens examined: INDIA: ANDAMAN AND NICOBAR ISLANDS: South Nicobar Islands (Great Nicobar): East-West Road, 17 km from Central Bay, $\pm$ 75 m, 21.8.1975, *Balakrishnan* 3028 (ANC, CAL); Harmind Nagar, sea level, 29.11.1975, *Chakraborty* 3027 (ANC), 35 km on East-West Road, Inland hill forest $\pm$ 120 m, 26. 7. 1976, *Balakrishnan* 4037C (ANC). MALAY PENINSULA: *Wray Jr.* 3679 (CAL); *Scortechini s. n.*, Accession no. 5447 (CAL); Gunong Batu Paten, Lover Camp, $\pm$ 100 m. *Wray Jr.* 430; Penang, *Wallich* 153 (CAL). MALAY ISLANDS, Gopong (PERAK), Sept. 1880, *Kunstler* 659 (CAL); Gepring, Sept. 1880, *King's collector* 659 (CAL). POLYNESIA: Herb. Royal Gardens, Kew, Thomes Moore's Fern Herb., *Cuming* 306 (CAL).

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REFERENCES

- BEDDOME, R. H. *Handbook to the Ferns of British India, Ceylon and the Malay Peninsula*, Thacker Spink & Co., Calcutta. 1883.
- GHOSH B. AND R. D. DIXIT. Notes on two species of *Lindsaea* Dryan. from Andaman and Nicobar Islands, India. *Bull. bot. Surv. India* 18:170-171. 1978.
- KRAMER, K. U. The *Lindsaeoid* ferns of old World III. Notes on *Lindsaea* and *Sphenomeris* in Flora Malesiana area. *Blumea* 15 : 557-574. 1968.
- Flora Malesiana Series II—Pteridophyta. *Lindsaea* group. 1(3) : 177-254. f. 1-56. 1971.
- The *Lindsaeoid* ferns of old World VI, continental Asia, Japan and Taiwan. *Gard. Bull. Singapore* 26: 1-48. f. 1-9. 1972.



Lindsaea parasitica (Roxb. ex Griff.) Hieron.

Figs. 1-3: 1. Habit, *Balakrishnan* 3028. 2. A fertile pinnule showing venation and soriferous region. 3. Spore.