# ADIANTUM LATIFOLIUM LAM.—AN INTRODUCED FERN IN INDIA

R. D. Dixit\*, S.R. Ghosh and R.K. Ghosh

Botanical Survey of India, Howrah

### ABSTRACT

Adiantum latifolium Lam., has been reported as new record of fern from Andamans and Kerala in wild state, probably introduced as a pot plant in the past by Britishers and is now getting naturalised in the Islands. The species is described in detail with illustrations.

### INTRODUCTION

Adiantum L., is a widely distributed, terrestrial genus of hardy ferns possessing beautiful foliage. well suited for the gardens as a pot plant and popularly known as 'Maiden hair fern'. The genus Adiantum L. is favourite of not only Horticulturists but also of plant lovers throughout the world resulting in their introduction in far distant places crossing over the boundaries of Phytogeographical barriers. This history of Botany in India reveals that Britishers were much instrumental for introduction of several exotic species in Indian region, of which a few species viz., Adiantum latifolium L.is still surviving as an escape in the forest hitherto unrecorded. Nayar (1962) revised the genus Adiantum L in India and dealt with 15 taxa, later Dixit (1984) enumerated 23 species. Recently Vasudeva et al (1991) taxonomically revised the genus providing key, current nomenclature, detailed description, specimens examined and illustration of diagnostic characters in respect of 19 species. The material in respect of 4 species included by Dixit (l.c.) could not be examined, therefore excluded. Previous workers included cultivated species also in their treatment. However, none of the authors examined specimens or mentioned the place of occurrence of any species from the Andaman &

Nicobar Islands except Ellis (1987) who recorded A.philippense Burm.f. from the Andman & Nicobar Islands based on the specimens available in herb PBL. Recently, senior author has undertaken surveycum-collection of Pteridophytes in Andaman Islands during November-December, 1992 and found that a small population of Adiantums growing among rocks in Dhankhari Reserve Forest area near a Guest House built by Britishers, which had been abandoned since long back and the area falling under the jurisdiction of Experimental Garden of Botanical Survey of India, Andaman & Nicobar Circle, Port Blair. The plants are elegant, remarkably possessing shining ebeneous stipes, hirsute rachis, pinnules darkgreen; soral region prominently giving an ornamental look. The search in herbarium CAL for identification amongst collections from the other countries, the present specimens were identified as Adiantum latifolium Lam. Lowe (1867) mentioned that it is a native of Tropical America and introduced in Britain in 1824 and subsequently into the Royal Botanic Gardens, Kew in 1840. Later the species was probably introduced by Britishers in Dhanikhari Guest House which was about 15 km. away from Port Blair. However, it is still growing in wild state in a small population in Dhanikhari forest area near abandoned Guest House. Later, a search of more

<sup>\*</sup> Present Address: Botanical Survey of India, Allahabad. Date of receipt: 10.3.93.Date of acceptance: 11.7.95.



Plate-1. Adiantum latifolium Lamk.: Habit, Nair 51573 (CAL).

specimens in Indian folders of unidentified specimens of *Adiantums*, the authors found a few specimens from Kerala in South India with field notes probably as an escape in the forest.

Adiantum latifolium Lam. is described in detail with nomenclature, specimens examined and illustration to facilitate easy identification in the field and garden, if grown at all as pot plants.

Adiantum latifolium Lam., Encycl. 1: 43.1783; C.Chr., Index Fill. 28.1905. A. intermedium sensu Hook. & Bak., Syn.Fil.116.1874. A. brasiliense Link, Hist. Berol 2: 13.1833 (non Raddi, 1825).

An elegant fern, 25-60 cm high; rhizome longcreeping, 2.5 mm thick scales dark brown, ovatelanceolate, 2-3 mm long, sparsely ciliate in the margins. Fronds tufted 4-6 mm apart, bipinnate, 1-4 alternate, lateral pinnae oblong-acuminate. horizontal; the terminal part being elongated; stipes 20-30 cm long, angular, shining ebeneous, rachis ebeneous, ferruginohirsute, hairs light brown, unicellular to usually multicellular at base, multicelled, flexuous; pinnules ovate-oblong, obtusely acuminate, wedge shaped at the base, parallel with the rachis; sterile pinnules obscurely lobate, finely serrate; the fertile pinnules with oblong, marginal, interrupted sori throughout, except 1/3 part of basioscopic side and serrated apex; midrib visible up to half of the pinnules, veins free, 1-3 times dichotomously forked, texture coriaceous, dark green even after drying. (Plate-1).

Specimens examined: All the specimens cited are at CAL.

INDIA: South Andamans-Port Blair: Dhanikhari Reserve Forest, ± 50 m, 1.12.1992, Dixit 62006 (six specimens) KERALA-Trivandrum, Thiruvella:

Kaviyar: Pazhamchira, 15.12.1972. Nair 51556; Neyyar dam area 30.12.1973, Nair 51573; Trichur-Kuttanad, 9.8.1974, Nair 52043.

TROPICAL AMERICA, s.l. 306; Oct. 1858, s.l. 296; Brazil s.l., s.n., Accession No.6403, Riedel s.n., Accession No.6407; 1871 Lengiman 12.

Ecology: Handsome ferns grow in wild state among rocks and usually along streams in shady situations.

Earlier records: Tropical America, Brazil, Ilinois, Guiana, Amazon, New Gernada, Mexico, Trinidad, Guaaquil, Peru, West Indian Island, Jamaica, Dominica, Guddaloupe and in the garden in Britain etc. (cf. Lowe, 1867).

Its ex-situ conservation as a pot plant in the gardens etc. recommended.

### **ACKNOWLEDGEMENTS**

We are thankful to the Director, Botanical Survey of India, Calcutta for encouragement.

## REFERENCES

DIXIT, R.D. A Census of Indian Pteridophytes. Fl. of India ser. IV. Botanical Survey of India. Calcutta. 1984.

ELLIS, J.L. Pteridophytic flora of Andaman & Nicobar Islands. J.Andaman Sci. Assoc. 3(2): 59-79.1987.

Lowe, E.J. Ferns: British and Exotic, Vol.III, Groobridge & sons. London, 1867.

NAYAR B.K. Ferns of India No.1. Adiantum Bull. Nat. Bot. Gard. Lucknow no.52. 1-42.1962.

VASUDEVA, S.M., A. KAUR AND K.KAUR. Taxonomic revision of *Adiantum L.* species in India, *Indian Fern J.* 8: 161-179.1991.