

**MARATTIA FRAXINEA SM. (MARATTIACEAE)— AN ENDANGERED FERN
—A NEW RECORD TO THE EASTERN GHATS OF PENINSULAR INDIA**

During the botanical survey work of the Kolli hills MPCA (Medicinal Plants Conservation Area) of Salem District in Tamil Nadu of Peninsular India, an interesting fern species, *Marattia fraxinea* Sm. of Marattiaceae was collected. On scrutiny of the literature on distribution of the species reveals that this species is reported to have distributed in the Southern Western Ghats Region (Bedd., 1863 & 1883; Nayar & Kaur, 1974; Dixit, 1984; Dixit & Vohra, 1984; Manickam, 1986; Manickam & Irudayaraj, 1992) and is stated to be a rare and endangered species (Bir, 1987). The present record in the Kolli hills forms a new distributional record to the Eastern Ghats Region of Peninsular India.

Marattia fraxinea Sm., Pl. Ic. in ed. 2. t. 48. 1790; Bedd., Ferns South. India 27. t. 79. 1863 & Handb. Ferns Brit. India 460. t. 286. 1883; Pichi-Sermolli in Webbia 23 : 329-351. 1969; Nayar & Kaur, Comp. Bedd. Handb. 104. 1974; Dixit, Census of Indian Pteridophytes 26. 1984 & Vohra, Dict. Pteridophytes India 28. 1984; Manickam, Ferns Fl. Palani Hills 16. 1986; Bir in Indian Fern J. 4 : 100. 1987; Manickam & Irudayaraj, Pteridophyte Fl. Western Ghats 57. 1992.

Shrubs, $\pm$ high. Rhizomes erect, massive, fleshy; leaf bases spiral; stipular flaps 2, flabellate; hairs and scales flesh-red, thin, soft, appressed. Stipes hairy and scaly when young, caducous, purple below, green above, with linear whitish streaks. Lamina 2-pinnate, deltoid; pinnae up to 16 pairs, subopposite, lanceolate, dark green above, pale green beneath; base dark coloured, swollen; pinnules opposite or subopposite, oblong lanceolate, unequally cuneate at base, serrate at margin, acuminate at apex, $10-22.6 \times 3.5-4.3$ cm; costa slightly raised beneath, not above; veins prominent beneath, faint above, simple or forked once or both,

free, up to margin; rachis and rachules hairy; stalk $\pm 5 \times 2$ mm. Sori submarginal on each vein, ellipsoid; sporangia in 2 rows, fused adjacently.

Local name : Nandukutti in Tamil.

Habitat : Rare along stream bank at $\pm 1,135$ m.

Distrib. : India : Kerala and Tamil Nadu.

Ecology : This species is collected on the laterite loamy soil in the shola of semi-evergreen forest type and is associated with herbaceous ferns of *Egenolfia appendiculata* (Willd.) J. Sm., *Christella dentata* (Forsk.) Brownsey & Germy, *Tectaria polymorpha* (Wall. ex Hook.) Copel., *Adiantum incisum* Forsk., *Pteris furunculata* Nair & Ghosh and angiosperms of herbaceous species of *Fimbristylis ovata* (Burm.f.) Kern, tree species of *Ficus nervosa* Heyne ex Roth, *Phoebe wightii* Meissner, *Diospyros ovalifolia* Wight, and *Memecylon* species and epiphytic species of *Procris crenata* Robinson, and *Vanda tessellata* (Roxb.) Hook. ex G. Don.

Notes : This species is not noticed anywhere except in the recorded site in the Kolli hills.

Specimens examined : Tamil Nadu : Kanyakumari Dist. : Way to Mahendragiri top, $\pm 1,300$ m, 12.9.1969, B.V. Shetty 32364. Madurai dist. : Pambar Forest, $\pm 1,750$ m, 16.9.1968, D.B. Deb 30905; Vellimamalai, Pachakumatchi, $\pm 1,460$ m, 23.10.1959, K. Subramanyam 9496. Tirunelveli Dist. : Kannikatti, ± 915 m, 22.9.1921, K. C. Jacob 17220; Kakachi, $\pm 1,700$ m, 8.5.1958, K. M. Sebastine 5828; Way to Upper Godaiyar, $\pm 1,200$ m, A. N. Henry 17431; Naterikal R.F., 12.2.1983, E. Vajravelu 80645. Nilgiri Dist. : Sispara Ghat, Acc. No. (s.n.) MHL. Salem Dist. : Kolli hills, Karadivangu, $\pm 1,135$ m, 16.6.1995, M. B. Viswanathan 17220.

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NESOPTERIS COPEL. — A NEW GENERIC FERN RECORD FROM THE NICOBAR ISLANDS, INDIA

Nesopteris Copel.- a genus hitherto known from Loochoo and Java to Samoa (cf. Copeland, 1938) and is reported as new generic fern record from the Nicobar Islands in India for the first time.

The genus *Nesopteris* Copel. belongs to the family Hymenophyllaceae is known by six species in world flora (Pichi-Sermolli, 1965). *N. grandis* (Copel.) Copel. is so far known only from the Philippines and Java (Copeland, 1938).

The pteridophytic collections made from the Nicobar Islands, India by Dr. M. Sanjappa in July, 1984 were handed over to the senior author (RDD) in the year 1993 for identification. The herbarium sheet apparently looks like a genus *Sphenomeris* and misidentified as *S. chinensis* (L.) Maxon, which later, on critical study of literature together with the comparison of herbarium specimens from the Philippine Islands housed in CAL, correctly identified as *Nesopteris grandis* (Copel.) Copel. earlier not recorded from the Indian region. It is rare in occurrence.

Nesopteris Copel. is a small, well marked genus superficially somewhat like *Selenodesmium* with larger, less rigid, more finely dissected fronds and very different structure. It differs from *Callitopteris*

Copel. in the firmer texture, habit, indumentum and shape of involucre.

The genus *Nesopteris* Copel. may be easily recognised by erect rhizomes; fronds densely tufted, polystichous, pinnately decompose, bearing minute, clavate hairs, margins entire, cell-wall thin but firm in texture, involucre cylindric, winged, extruded. It is so far known only from Malaysia to Indonesia.

Nesopteris grandis (Copel.) Copel., has been reported for the first time from Nicobar Islands, India. Hence the detailed description with illustrations of habit and the other diagnostic characters have been provided to facilitate easy identification.

***Nesopteris grandis* (Copel.) Copel.**, Philip. Journ. Sci.67(1): 66.1938. *Trichomanes grande* Copel., Philip. Journ.Sci. C.6: 70.1911; Philip. Journ. Sci.Trich.51(2): 224.t.40.f.1 - 4.1933.

Terrestrial fern; rhizome erect, stipes fascicled, winged, 5 9 cm long; fronds 12 25 × 5 6 cm, quadripinnatifid, rachis sparsely pubescent, ultimate segments distinct, narrow, ca 0.5 mm broad; margins entire, apex obtuse, cell walls thin but firm in texture.