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Pleocnemia C.presl (Dryopteridaceae) – A New Generic Record For Andaman and Nicobar Islands

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ABSTRACT

The Genus *Pleocnemia* C.Presl. is collected from Little Nicobar Tribal Reserve and Great Nicobar Biosphere Reserve and reported here as new generic record with a species *Pleocnemia submembranacea* (Hayata) Tagawa & K.Iwats. for the Pteridophytic flora of Andaman Nicobar Islands.

Keywords : *Pleocnemia,* Dryopteridaceae, Nicobar, India

INTRODUCTION

Dryopteridaceae is a large and diverse family of leptosporangiate ferns that have a world-wide distribution, but it has the highest density of genera and species in the temperate regions of the Northern Hemisphere, especially in the hills and mountains of eastern Asia (Ching 1965; Tryon & Tryon 1982; Wu & Ching 1991; Wu 2000). This family is estimated to have ca 1700 species belonging to 40-45genera. (Kramer 1990; Fraser-Jenkins 1986). Among these, 134 species have been reported from India (Benniamin, 2012).

During the botanical exploration at the Little Nicobar Tribal Reserve and Great Nicobar Biosphere Reserve, the senior author is collected an interesting pteridophyte specimen viz *Pleocnemia* C. Presl. (Dryopteridaceae) . After critical study and perusal of literature (Borthakur, et al., 2008, Singh and Panigraghi 2005; Fraser-Jenkins, 2008), it is identified as *Pleocnemia submembranacea* which is so far known to occur in Bangladesh, China, India, Myanmar, Thailand, Vietnam. Hitherto, it is recorded in India from Assam, Arunachal Pradesh, Sikkim, and Meghalaya but not in Andaman and Nicobar Islands. It is also interesting to note that the occurrence of the *Pleocnemia submembranacea* record for the first time to this Oceanic Pterido-geographical territory viz Great and Little Nicobar. Therefore, the present report is forming a generic record with a species for Andaman and Nicobar Islands. A short description along with colour plate, relevant notes and distribution is provided here for further collection and identification in field. All voucher specimen are deposited at the Herbarium of Botanical Survey of India (PBL), Port Blair, Andaman and Nicobar Islands for future reference.

TAXONOMIC DESCRIPTION

Pleocnemia submembranacea (Hayata) Tagawa & K.Iwats., Acta Phytotax. Geobot. 26: 61. 1974; Tagawa & K.Iwats., Fl. Thailand 3: 386. 1988; Boonkerd & Pollawatn, Pterid. Thailand: 207. 2000. – *Aspidium submembranaceum* Hayata, Ic. Pl. Formos. 4: 188, f. 126. 1914. – Type: *Hayata & Sasaki* s.n. (TI), Urai, Taiwan. *Pleocnemia winitii* Holttum, Reinwardtia 1: 181. 1951; Holttum, Kew Bull. 29: 354. 1974; Tagawa & K.Iwats., SouthE. Asian Stud. 5: 100. 1967. – Type: *Winit* 36 (SING), Lampang. *Tectaria leuzeana* auct. non (Gaudich.) Copel.: Bedd., Handb. Ferns Brit. India: 228. 1883, p.p.; C.Chr., Contr. U.S. Natl. Herb. 26: 331. 1931; Tardieu & C.Chr., Fl. Indo-Chine 7(2): 405., t.2.1941.

Caudex subarborescent, apex densely scaly, scales upto 5 mm long, narrow, dark brown, base of stipe with similar scales margin entire or with short protrusions. Fronds more than 150 cm tall, stipe 100 cm long, strongly grooved, deep brown in colour. Lamina subdeltoid, bipinnate to tripinnatifid. Primary pinnae and secondary pinnae stalked, stalk of primary pinnae long, other short, basal pinnae upto 60 cm long, primary and secondary pinnae alternate, basal primary pinnae with larger secondary pinnae on basioscopic side, secondary pinnae

oblong-lanceolate, upto 16 cm long, 4.5 cm broad, apex acuminate, secondary pinnae lobed nearly upto the midrib, distinct seta or tooth present in between the lobes, lobes slightly falcate, oblong, upto 22 mm long, upto 6 mm broad at base, sinus wide, apex of lobe acute, lobes again segmented, segments entire or denticulate, single row of areola along costa and costule, other veins free and excurrent or all veins of segments free, copious glandular hairs on veins present. Sori exindusiate, with copious glandular hairs, medial on veins.**(Fig. 1)**

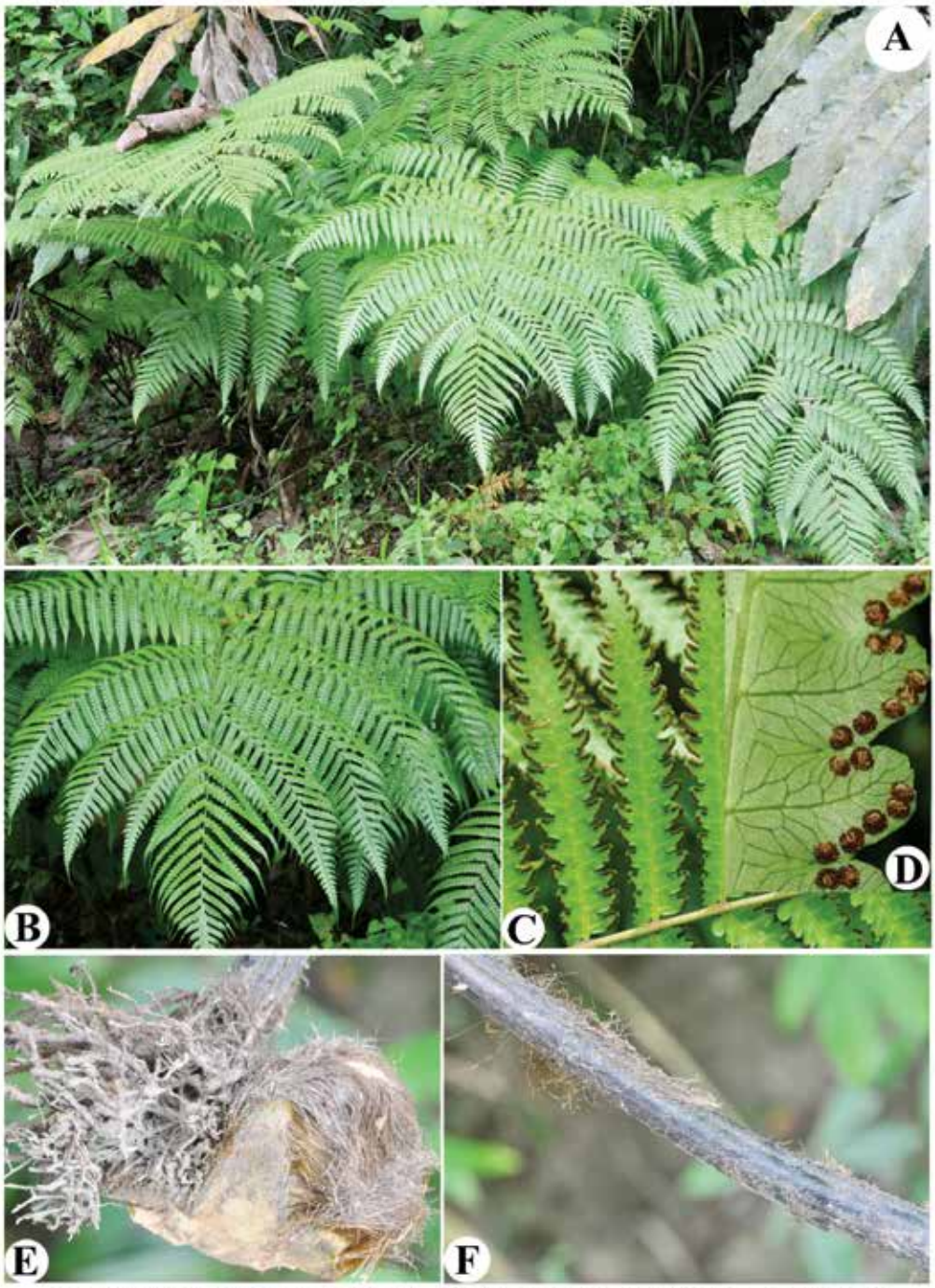

Fig.1. *Pleocnemia submembranacea* (Hayata) Tagawa & K.Iwats (Dryopteridaceae): A. Habit, B. Pinnae, C. Position of sori, D. Venation with sori, E. Rhizome with Scale, F. Stipe with scale

Ecology: It grows on humus rich mountain slopes usually near streams in dense forest at medium altitude between 50-300 MSL

Specimens examined: India, Andaman and Nicobar, Little Nicobar Tribal Reserve, Pulopanja, 06-05-2008, *C. Murugan* 26510 (PBL); Bahua, 07-04-2010, *C. Murugan* 27940 (PBL); Pulopanja stream, 31-10-2009, *C. Murugan* 27818 (PBL); Anula, 14-04-2010, *C. Murugan* 28161 (PBL). Great Nicobar Biosphere Reserve, East-West Road, 06-04-2014, *C. Murugan, S. Prabhu & R. Sathiyaseelan* 1503(PBL).

Distribution: India: Eastern India (Sikkim, Arunachal Pradesh, Meghalaya, Assam, Now Andaman and Nicobar Islands), China, Bangladesh, Myanmar, Thailand, Vietnam.

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