



***Pteris tripartita* Sw. A New Record for Eastern Ghats**

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Abstract

Pteris tripartita Sw. has been collected from Alazhar hills of Madurai District, Tamil Nadu is reported for the first time from Eastern Ghats. The detailed description and colour photograph is provided to facilitate for easy identification.

Keywords: *Pteris tripartita* Sw; Eastern Ghats; Alazhar hills, Tamil Nadu

Introduction

Pteris Linn is a fairly a large pan tropical warm temperate fern genus containing about 280 species throughout the World (Copeland, 1947). Nearly 50 species are known to exist in India (Dixit, 1984) and of these 15 species have been encountered in Western Ghats, South India (Manickam and Irudayaraj, 1992). Normally it grows mainly tropical or subtropical region but it was extending southwards into the temperate zone. Its distribution includes countries like Japan, New Zealand, South Africa, Tasmania and United States. Majority of Indian members of the genus grow terrestrially in moist and shady situation in the Himalayan, Southern, Western and Central Indian mountains between 1000-2500m altitudes. During the course of lower plant exploration the authors collected an interesting specimen of the genus *Pteris* Linn. Critical analysis and perusal of literature confirmed it as *Pteris tripartita* Sw. It is one of the rarer pteridophytes in India (Beddome, 1863; Dixit and Sinha, 2001; Chandra, 2008) was first collected by Beddome, (1863) from Madras in Tamil Nadu and Cochin in Kerala. Recently refound in South India and reported by Manickam *et al.*, (2004) as the Himalayan species *P. wallichiana* J. Agardh, but his material was reidentified by Fraser Jenkins as *Pteris tripartita*. Chandra and Fraser Jenkins, (2008) listed it at risk of extinction and mentioned it under the Critical Endangered (CE) category of IUCN. Hence the occurrence of this rare, endangered and threatened (RET) plant in the Eastern Ghats is important from the point of view of conservation and phytogeography. In the communication the correct nomenclature detailed description, specimen examined, taxonomic notes of plant have been provided to facilitate easy identification.

Pteris tripartita Sw., Schrad.Journ.Bot.1800 (2):67.1801; Ellis in J.Andaman Sci.Assoc.3 (2):78.1987. (Fig.1).

Litocrochia tripartita (Sw.) Presl,Tent Pterid.140.1836;Bedd.,Hand.Ferns Brit.India Suppl.25.1892.

Terrestrial herbs. Rhizome short scaly. Stipes ca 5 feet long. Fronds tripartite; the middle branch deeply bipinnatifid; lateral branches as long as the middle branch, each with large secondary bipinnatifid branch on lower side towards base; the lowest basal pinnae on this branch bearing several Pinnatifid leaflets on its lower side; lamina on its upper side lobed; middle branch of frond ca 100x25 cm, with 15-30pairs of lateral pinnae and terminal pinna; middle pinnae largest, a 16x 3 cm; basal ones and terminal pinna; middle pinnae largest, a 16x 3cm; basal ones reduced, texture thin; veins distinct, copiously anastomosing. Sori continuous along each side of the lobes or the margin from base to midway or sometimes to apical part of segments, spores dark brown, tetrahedral.

Fertile: September- December

Ecology: Very Rare, grow on the stream banks, under the shaded regions.

Altitude: 500-750m

Distribution: India: South India and Andaman & Nicobar Island

Sri Lanka, Malacca, Malay Peninsula, Tropical Africa, Philippines.

Specimen Examined: Pattanampatti hills, Alazhar hill Range, Madurai dist, Tamil Nadu (XCH 22823)

Note: This species is comes close to *P. wallichiana* Agardh, but differs in free veins, forked, rarely a single areole at the base of the costule.

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Jenkins for identifying our material and State forest Department is also acknowledged.



Fig.1. *Pteris tripartita* Sw. - Habit

References:

Beddome, R.H.1873. The ferns of Southern India and Ceylon. Gastz. Bros, Madras. 1-38, t. 1-110 (1863); 39-88, t. 111-271 (1864). 2nd edn. (1873). 1-88, t. 1-270.

Chandra Subhash, Fraser-Jenkins, C. R., Kumari, A and Srivastava, A.2008. A summary of the status of threatened pteridophytes of India *Taiwania*, 53(2): 1-40.

Copeland, E.B.1947. Genera Filicum Chronic Botanic Co., Waltham, Mass,USA.

Dixit, R.D. 1984. A census of the Indian Pteridophytes. Bot. Surv. India. Dept. of Environment, Howrah

Dixit,R.D. and Sinha,B.K. 2001. Pteridophytes of Andaman and Nicobar Islands, Bishen Singh Mahendra Pal Singh, Dehradun

Manickam V.S., Benniamin, A. and Harisrishnan, S. 2004. *Pteris wallichiana* (Agargh) Pteridaceae South India - A New Record. *Indian Journal of Forestry*, 27(2): 151-152.

Manickam, V.S. and Irudayaraj, V.1992. Pteridophytes flora of the Western Ghats of South India. B.I. Publications, Pvt. Ltd., New Delhi.