

## Pteridophytic survey in agumbe forest of central western ghats, Karnataka

S. NATARAJA, J. DEEPA, H.N. RAMESH BABU AND M. KRISHANAPPA

Received : May, 2011; Accepted : July, 2011

### SUMMARY

A total of 22 species were enumerated in Someshwara ghat, lying in the Central Western Ghats. It has evergreen, semi-evergreen and moist deciduous forests. So far, no attempt has been made for any comprehensive study of the Indian fern flora in the country when compared to that of the higher plants. Viewed in this context the present work is an attempt to document the pteridophyte floristic diversity in someshwar ghat of Agumbe forest.

Nataraja, S., Deepa, J., Babu, H.N. Ramesh and Krishanappa, M. (2011). Pteridophytic survey in agumbe forest of central western ghats, Karnataka. *Internat. J. Plant Sci.*, 6 (2): 345-347.

**Key words :** Pteridophytes, Diversity, Survey, Agumbe forest

Pteridophytes form a conspicuous element of vegetation as intermediate between the lower cryptogams and higher vascular plants with long geological history on the planet. There are about 12,000 species recorded globally. India has a rich and varied pteridophytic flora due to the varied nature of topography, variable climatic conditions and its geographical positions. However, there are about 1000 species belonging to 70 families and 191 genera in India (Dixit, 1990; Chandra *et al.*, 2008). Manickam and Ninan (1976) have described present pteridophytic flora of south Indian peninsula including ecology distribution, synonymy and nomenclature of Indian pteridophytes. Khullar (1994, 2000) reported 360 fern species in his *Illustrated Fern Flora of Western Himalaya*, with 399 pteridophytes given by Fraser-Jenkins (2010), which included fern allies. Western ghats harbors 349 pteridophytic species out of 1100-1200 species of ferns and fern allies in India (Manickam and Irudayaraj

*et al.*, 1992).

The western ghat region includes Agumbe forest as a diversity center of this region; it has evergreen, semi-evergreen and moist deciduous forests. Present survey was carried out in Someshwara ghat of Agumbe forest. It is located in Udapi district, the major portion from 13° 29' to 13° 37' N latitude and 74° 59' to 75° 05' E longitude and the smaller portion from 13° 28' to 13° 31' N latitude and 74° 56' to 75° 00' E longitude. Altitudes vary from 75 to 870 m, temperature range from 20 to 37°C, and mean annual rainfall is 6000 mm. The tree of the evergreen forests includes *Terminalia paniculata* Roth, *Machilus macrantha* Nees, *Lophopetalum wightianum* Arn., *Mangifera indica* L., *Hopea parviflora* Bedd., *Artocarpus hirsute* Lam. and *Cinnamomum zeylanicum* Bl. The moist deciduous forests are represented by *Dalbergia latifolia* Lam., *Terminalia tomentosa* W. and A., *Lagestroemia lanceolata* Wall., *Dillenia pentagyna* Roxb. and *Careya arborea* Roxb. Apart from plantations of teak, eucalyptus, casurina and cashew, there are also some mixed plantations of native species such as Bombax, Sterculia, Ailanthus. Pteridophytic studies in Agumbe are still in an infant stage. Except angiosperms there has been no comprehensive systematic work on lower cryptogams of Agumbe region. So, far as Someshwar ghat is concerned, it is practically unexplored. This prompted the taking up of the present study.

### MATERIALS AND METHODS

A survey of Pteridophytes in Someshwara ghat of Agumbe forest was conducted during the period of 2008-2009. Diagnostic features of all the specimens were studied and relevant field notes were made on fresh plant

#### Correspondence to:

S. NATARAJA, Department of Botany and Seed Technology, Sahyadri Science College (Auto), SHIMOGA (KARNATAKA) INDIA

#### Authors' affiliations:

J. DEEPA, Department of Applied Botany, Kuvempu University, Shankaraghatta, SHIMOGA (KARNATAKA) INDIA

Email : deepabot@gmail.com

H.N. RAMESH BABU, Sahyadri Science College (Auto), SHIMOGA (KARNATAKA) INDIA

Email : rameshbabulm29@gmail.com

M. KRISHANAPPA, Kuvempu University, Shankaraghatta, SHIMOGA (KARNATAKA) INDIA

Email : krishnappam4281@yahoo.com