## PTERIDOPHYTES OF WESTERN GHATS



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The Western Ghats is one of the 34 Global Biodiversity Hotspots and harbors a rich diversity of flora and fauna with many endemic and RET species. Along with the angiospermic plants, the Western Ghats is also a rich repository of pteridophytic plant wealth. The pteridophytes form a conspicuous element of the earth's vegetation and are important from evolutionary point of view as they show the evolution of vascular system and reflect the emergence of seed habitat in the plants. About 250 million years ago they formed the dominant part of earth's vegetation, but in present day flora have been largely replaced by the seed bearing plants. About 12,000 species of pteridophytes occur in the world flora of which around 1000 species are distributed in different biogeographical regions of India with the main centers being the Himalayas, the Western Ghats and the Eastern Ghats. The Western Ghats harbor about 320 species of ferns and fern allies with more species diversity in the southern part. The major families of pteridophytes found in the Western Ghats are Aspleniaceae, Polypodiaceae, Thelypteridaceae, Selaginellaceae, Pteridaceae, etc. Whereas on the generic level, maximum diversity is observed in the genus Asplenium, Selaginella, Pteris, Athyrium, Diplazium, etc. The Western Ghats also harbors endemic species like Polystichum manickamii, Cyathea nilgiriensis, Bolbitis semicordata, Selaginella radicata, etc. The habitat of the pteridophytes consists of microclimatic conditions with special preference for moist and shady places and a minor disturbance in their microclimate conditions can lead to loss of large number of species. They occur in abundance in tropical, sub-tropical, temperate and moist-deciduous forests of India and their life-cycle is based on the existence of the forests. However, large scale deforestation and increasing anthropogenic factors have caused the elimination of the habitats which is posing a serious threat to the pteridophytes of Western Ghats and many endangered pteridophytes like Psilotum nudum, Tectaria zeylanica, Lindsaea malabarica, Cheilanthes rufa, etc. may soon face the brunt of extinction. In the recent years, though the pteridological studies have picked up in various parts of the country, many questions regarding the pteridophytic wealth of the Western Ghats remain unanswered and hence, more studies are required for developing in situ and ex situ conservation strategies for this wonderful and important group of plants.



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