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Preliminary studies on the spider fauna in Mannavan shola forest, Kerala, India (Araneae)

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Abstract: A pioneering study was conducted to reveal the spider diversity in Mannavan shola Forest in Kerala state, India. Mannavan shola, the largest Shola patch in Asia, exists in "Western Ghats", one of the biodiversity hot spots of the world. A total of 72 species of spiders belonging to 57 genera of 20 families were collected from this area during this five-day study. This represents 5% of the total families recorded in India. Guild structure analysis of the collected spiders revealed 6 feeding guilds viz., orb-web builders, foliage hunters, ground hunters, sheet web builders, scattered line weavers and ambushers. The families Araneidae, Tetragnathidae, Salticidae and Thomisidae exhibited maximum species diversity. The dominant family was Araneidae with 17 species. The most striking feature of the spider fauna of Mannavan shola is the number of new records. About 15 species discovered in Mannavan shola are endemic to Western Ghats of Kerala. The high species diversity of spiders in Mannavan shola can be attributed to the high diversity of plants and insects. Because of the complex interaction of various climatic factors such as high rainfall and humidity, with topographical features, Mannavan shola holds many smaller but diverse environmental niches which make this shola forest an important centre of speciation in Western Ghats. This is the first report of the spider fauna from any shola forest in India.

Key words: Mannavan shola, India, spiders, diversity, guild structure