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Mathew M. Joseph Sunil Jose K Diversity and conservation of Nannenini Jumping Spiders (Salticidae) in rapidly changing cloud forest of Sri Lanka

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Abstract

The jumping spider family Salticidae includes more than 6359 species in 659 genera. This study is being done to determine how habitat quality and diversity affect the species composition of Nannenini Jumping spiders of the island. Further, this study aims to establish the diversity of Nannenini through an island-wide sampling regime and DNA barcodes. The collection of spiders was by beating and hand collection in 31 selected sites covering all of Sri Lanka. Using a multilocus molecular data set (185, 285, CO1 and H3) and 61 morphological characters (coded for 17 taxa), we provide the first hypothesis on the internal phylogenetic structure of the Epidelaxia and its placement within tribe Nannenini. We used TNT 1.1 for the parsimony analysis of the morphological data matrix and RAxML for the maximum-likelihood (ML) analysis of the molecular data set. The resulting cladistics analysis, based on 63 morphological characters from 17 taxa supports the monophyly of the genus. All analysis strongly supports the monophyly of Epidelaxia and validates its placement within the tribe Nannenini. The Nannenini Jumping spiders are restricted to the undisturbed cloud forests of the central highlands and lowland secondary rainforests of Sri Lanka. To conserve them in their natural habitat, we have to avoid habitat fragmentation and deforestation of such forests.

Keywords: endemic, Nannenini, Sri Lanka, synapomorphies, systematics

A review and first geographic distribution record of *Chilobrachys fimbriatus* Pocock, 1899 (Araneae: Mygalomorphae: Theraphosidae) from Girnar Wildlife Sanctuary Junagadh Gujarat India

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Abstract

Girnar Wildlife Sanctuary is situated in Junagadh district, which is well known for Mount Girnar and occurrence of Asiatic lions. The present study is based on the existence of tarantula spider Chilobrachys fimbriatus Pocock 1899. Mygalomorphae are poorly studied in India. Since only a few records have been reported so far about this beautiful tarantula species, this study is a little step toward documentation of C. fimbriatus Pocock 1899 from Junagadh district, Gujarat state, India. During a random walk on a trail in Girnar forest, this species is observed. Previously it was reported from Maharashtra, Goa, Western Ghats and other states of India. As no strong evidence or literature is made on the existence of it from this area, in the present study, we had the first record along with review literature.

Key words: Chilobrachys fimbriatus, Girnar Wildlife Sanctuary, First record, Junagadh, Gujarat, Tarantula.