

REVISION OF SPIDER FAMILY OONOPIDAE IN SRI LANKA

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ABSTRACT

Dwarf hunting spiders or goblin spiders (Family: Oonopidae) are a diverse spider family with over 1747 described species in 114 genera worldwide. However, no specific extensive study has been done for them in Sri Lanka. Only twenty-three species in eight genera have been recorded from the country. The main objective of this study was to do a taxonomic revision of goblin spiders of Sri Lanka based on morphological characters.

Specimens were collected from all major climatic-physiographic zones of Sri Lanka i.e. Central Mountain Range, Knuckles Range, Low Country wet zone and the dry zone. Collected specimens were examined using an Olympus SZX7 stereomicroscope and illustrated with the aid of an Olympus BX51 compound microscope attached with a drawing tube. Digital images of the specimens were taken with a Leica MC170 HD camera mounted on a Leica M205C stereomicroscope using the software package Leica Application Suite. Acquired image stacks of different depths were assembled using Helicon Focus software. The specimens were identified using recently published work. Each adult specimen was numbered and catalogued.

Four new species of *Brignolia*: *B. carlmulleri* Ranasinghe and Benjamin, 2016, *B. meemure* Ranasinghe and Benjamin, 2016, *B. ondaatjei* Ranasinghe and Benjamin, 2016 and *B. shyami* Ranasinghe and Benjamin, 2016, three new species of *Xestaspis*: *X. nuwaraeliya* Ranasinghe and Benjamin, 2016, *X. padaviya* Ranasinghe and Benjamin, 2016 and *X. pophami* Ranasinghe and Benjamin, 2016, and three new species of *Aprusia*: *Aprusia* sp. A., *Aprusia* sp. B. and *Aprusia* sp. C. are described based on both sexes. Ten species from the genus *Brignolia*, six and seven species from *Xestaspis* and *Aprusia* respectively, are now known from Sri Lanka. Further, two species from *Ischnothyreus* and one species from *Opopaea* are reported in addition to their three known species. *Pelcinus marmoratus* and *Xyphinus baehrae* are reported for the first time in Sri Lanka. The study revealed the presence of 43 Oonopidae species (38 endemics) belonging to twelve genera in Sri Lanka, highlighting the diversity of the family in forests of the island. Further, the study doubled the diversity of the family in the island.

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KEYWORDS: Oonopidae, Aranea, Sri Lanka, Goblin spiders