GENERIC DIVERSITY AND DISTRIBUTION OF GOBLIN SPIDERS (FAMILY: OONOPIDAE) IN SELECTED SITES IN SRI LANKA

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The spider family Oonopidae, commonly known as goblin spiders, includes over 600 described species in 88 genera worldwide. Members of this family are small (1-4 mm), haplogyne, six eyed, free hunting spiders that dwell in litter or in the canopy. They do not build webs. While eight genera of Oonopidae have been recorded in Sri Lanka, some genera have not been redescribed to date. Species of the five genera Aprusia (4 species), Brignolia (5 species), Camptoscaphiella (1 species), Gamasomorpha (3 species) and Xestaspis (3 species) have been redescribed in Sri Lanka. However, genera of Epectris, Ischnothyreus and Orchestina were last reported almost a century ago. Because of their size and cryptic habits, oonopid spiders have been grossly under-sampled. This study is aimed at assessing the diversity and distribution of the Oonopidae spider family in Sri Lanka.

The collection of litter samples was conducted by sifting litter in 32 selected sites within 13 districts in Sri Lanka. The collected spiders were then sorted into genera, preserved in alcohol and identified morphologically using recently published international revisionary studies. Our collections consist of 183 specimens of the genera Aprusia, Brignolia, Xestaspis, Camptoscaphiella, Orchestina, Ischnothyreus and Opopaea. Of this, fifty-six specimens from the genus Xestaspis were recorded in the Kandy (17 specimens), Puttalam (7), Matale (9), Ampara (1), Nuwara Eliya (2), Kurunagala (4), Monaragala (1), Badulla (4), Polonnaruwa (1) and Anuradhapura (10) districts. Thirty six specimens belonging to the genus Brignolia which were found in the Puttalam (2), Kurunagala (6), Kegalle (1), Kandy (13), Matale (4), Ampara (2), Monaragala (1), Anuradhapura (4) and Badulla (3) districts. Forty-three specimens of the genus Aprusia were distributed in the Gampaha (1), Puttalam (1), Kandy (27), Rathnapura (1), Badulla (11) and Anuradhapura (2) districts.

One specimen belonging to the genus Camptoscaphiella has been found from Kandy district. Twenty-three specimens from the genus Orchestina and seven specimens from the genus Ischnothyreus have been identified. The genus Orchestina was collected in the Kandy (11), Nuwara Eliya (8) and Badulla (4) districts, whereas the genus Ischnothyreus was only recorded in the Kurunagala (1) and Kandy (6) districts. We also record a new genus for Sri Lanka, Opopaea, from the Kandy (4), Kegalle (1), Kurunagala (2), Matale (4), Badulla (1) and Monaragala (1) districts. Based on the available distribution data, the genera Aprusia, Brignolia, Xestaspis and Opopaea are widely distributed than the genera Camptoscaphiella, Orchestina and Ischnothyreus. This could be due to different environmental conditions. With the present study, seven genera in spider family Oonopidae are recorded and more species are expected to be discovered in Sri Lanka. Future work will focus on taxonomic revisions of Oonopidae spiders of Sri Lanka based on morphological and molecular data.

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