

Molecular and morphological species delimitation suggest a single species of the beetle-spider genus *Ballus* in Sri Lanka (Araneae: Salticidae).

Bopearachchi, Dilini P.^{1,*}, Jonas Eberle², Suresh P. Benjamin¹

¹National Institute of Fundamental Studies, Hantana road, Kandy, Sri Lanka.

²Evolutionary Zoology, University of Salzburg, Hellbrunner Straße 34, 5020 Salzburg, Austria

*Corresponding author: dilini.p.bopearachchi@gmail.com

Ballus Koch, 1850 is a beetle-like jumping spider genus encountered in the central highland sub-mountain and mountain evergreen rain forests of Sri Lanka. Taxonomic literature documents three species of the genus for the island. However, neither the taxonomic validity nor the systematics of any of them have been previously tested. We used nuclear and mitochondrial DNA sequences (28S, H3, COI) as well as morphological characters to investigate the diversity of *Ballus* populations in Sri Lanka, including specimens from historical type localities of all three species. No *Ballus* specimens were found outside of the central highland. Results of molecular species delimitation suggested the presence of only a single species of *Ballus* in Sri Lanka, which was further supported by the lack of morphological diagnostic characters. We thus propose *Ballus sellatus* Simon, 1900 as a synonym of *Ballus segmentatus* Simon, 1900. Further, we discuss the implication of our results for conservation planning.

Keywords: Morphology, Arachnid, DNA barcoding, Species discovery, Island biogeography, Conservation