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Diversity of Odonata in the Peak Wilderness Sanctuary, Sri Lanka

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Abstract

A preliminary study on the diversity of odonata was carried out for the first time to assess the diversity of odonata in the Peak Wilderness Sanctuary (PWS), Sri Lanka. It is a biologically rich area surrounding the Adam's Peak which is located at 6° 48' 33.357" N and 80° 29' 58.3182" E. Total area of the sanctuary is about 24,000 ha and the altitude ranges from 50 m to 2238 m.. The study was conducted from August 2012 to August 2013. Visual encounter survey method was used for the sampling and it was carried out along the existing paths and streams in the sanctuary covering many different habitats types. Sampling was done in the day time from 0800 h to 1700 h as odonates are most active during the day. 34 species of odonates representing 11 families were recorded during the study while 30 of them were identified to the species level. This represents 28.1% (from 121 species) of the Sri Lankan odonate fauna. 19 of the recorded species (55.9%) belong to Suborder Zygoptera while the remaining 15 (44.1%) belongs to the Suborder Anisoptera. Seven of the identified species are endemic to the country while 13 species are considered to be threatened with extinction at the national level. 10 of the threatened species are known to be Vulnerable while three species are endangered. The nationally data deficient and globally critically endangered damselfly *Sinhalestes orientalis* (Hagen in Selys, 1862) which has not been recorded for 154 years was also observed during this study. The high species richness of odonata and the presence of many threatened species and data deficient species indicate that the PWS is an important area for the odonata thus more comprehensive studies and suitable conservation actions should be made.

Keywords: Odonata, Diversity, Peak Wilderness Sanctuary