

A preliminary survey of odonates at selected sites in “Kirala Kele” sanctuary, Matara, Sri Lanka

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“Kirala Kele” sanctuary is an important wetland habitat located in Matara Township in southern Sri Lanka. Present study reports diversity of dragonflies and damselflies (Order - Odonata) in “KiralaKele” sanctuary as they are useful indicators of ecosystem health. The study was conducted in weekly basis from September to December 2015 along the belts of selected four sites in “Kirala Kele” area. Each site comprises of one or more shallow water streams in the area. Odonates were collected using standard methods and identified using taxonomic and pictorial keys. Physicochemical parameters of water bodies adjacent to the study sites were also measured. Altogether 15 species of Odonates (seven Anisopterans and eight Zygopterans) were recorded during the study period with higher Odonate species diversity at site three (Shannon’s Diversity Index-1.2660). Pied parasols (*Neurothemis tullia*), Green skimmers (*Orthetrumsabina abina*), Painted wxtails (*Ceragrioncerino rubellum*), Asian groundlings (*Brachythemis contaminata*) and Blue sprites (*Pseudagrion microcephalum*) were reported in all study sites. Endangered species namely White backed wisp (*Agriocnemis femina femina*), Aggressive river hawk (*Oncychothemis tokinensis*, Sinuate clubtail (*Burmagomphus pyramidalis sinuatus*) were found only at site three. Swarm of Variegated flutterer (*Rhyothemis variegata variegata*) was reported at site two and three only closer to water bodies where *Nelumbo* plants were dominated. Physicochemical parameters were not significantly different in the water bodies associated with study sites except the depth of water bodies (ANOVA: $F=3.2$, $p<0.05$) indicating a little influence on the occurrence of Odonate species at each study site. These findings would be important for further studies on the Odonate ecology and might be beneficial to increase the interest on Odonate ecology and probably to a greater extent, in the conservation and management of “Kirala Kele” ecosystem.

Keywords: “KiralaKele” sanctuary, Odonate diversity, Variegated flutterer

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