Spatial distribution of Dragonfly Species of Henarathgoda Botanical Garden in Gampaha District.

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Abstract

Dragonflies are common insects and are interesting species to study. The dragonflies' populations are under threat due to increasing trends of anthropogenic activities. The consequence of deforestation, wetland reclamation, water pollution, urbanization and climate changes like global warming, rainfall patterns changes are highly impacted on the survival and the diversity of the dragonfly population. Therefore investigation of dragonfly species and their distribution patterns is important. This study was focused on identifying the different dragonfly species and the differences in their distribution in the Gampaha Henarathgoda Botanical Garden. Samples were located to represent the land use heterogeneity of the garden. The field survey was carried out to identify the dragonfly species using 23 samples. The observations were carried out during the southwest monsoon period in 2019. Observations were conducted during eight consecutive days for each sample. A total of 16 species of dragonflies and damselflies were identified from the area. Among them 14 from the Anisoptera suborder and 2 from the *Zygoptera* suborder. All the dragonflies have belonged to 3 families namely ***Libellulidae***, ***Gomphidae*** and ***Coenagrionidae***. The most common species are *Brachythemis contaminate, Trithemis aurora, Neurothemis tullia tullia,* and the least common species are *Rhodothemis rufa*, *Brachydiplax sobina*, *Ictinogomphus rapax.* Spatially the highest diversity of dragonfly species was identified in water areas and open lands. According to the IUCN categorization dragonflies in the botanical garden can be categorized into three groups namely Vulnerable, Near threatened, Least concern. Among them 2 species were belong to vulnerable, 3 species belong to near threatened and 11 species belong to least concern groups. The resent alterations of habitat in the garden and the surrounding area harms the population of dragonflies.

Keywords: Henarathgoda Botanical Garden, Dragonfly Species, Spatial distribution

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