Insect diversity of Sg. Rawog Conservation Area in Segaliud Lokan Forest Reserve, Sabah

ABSTRACT

Nocturnal insect diversity was assessed through light-trapping while diurnal insects were documented through sweep nets and forceps. A mean 104 species of nocturnal insects was recorded from a one-square-metre of the light-trapping cloth, with an average of 128 individuals. The mean Shannon Index was 4.52 while Simpson Index was 173.6 and Fisher Alpha Index was 266.7. When the nocturnal insect richness was compared with 24 other forest reserves in Sabah, it is interesting to note that Sg. Rawog insect richness appears to be the third highest after Crocker Range and Bukit Hampuan FRs. In terms of nocturnal insect diversity as reflected by Shannon Index, it is the second highest after Crocker Range FR. One undescribed moth species (Plutodes sp., Geometridae) and at least 13 Bornean endemic species were recorded during the survey. The endemics and other insect species recorded during the survey provide significant information to enhance the conservation of Sg. Rawog area. Continuous monitoring and enforcement at strategic locations within the conservation area are important to minimize the threats and adverse issues. This will ensure that the forest quality would be improved in order to maintain the interesting biodiversity, including insects. On-going cooperation with the relevant authorities, such as Sabah Forestry Department and Sabah Wildlife Department, will enhance effort in conservation and curb future incidences of encroachment. Further biodiversity research with academic institutions, such as Universiti Malaysia Sabah as well as Forest Research Centre, Sepilok, is also encouraged. In view of the high wildlife diversity, Sg. Rawog is potentially important for nature tourism.