

The status of migratory shorebirds diversity in ramsar site during southward and northward migration in Kuala Gula Birds Sanctuary

ABSTRACT

Kuala Gula 04° 55. 60'N E 100° 28.0'E is a well established bird sanctuary in Malaysia and the Asian region. It is one of the primary corridors or stopover sites of migratory shorebirds during annual migrations and considered one of the major routes of the East Asian ó Australasian flyway. Two sampling stations each measuring 100 x 100 meters squared were established within the Kuala Gula Bird Sanctuary. The first station (station 1) was located at the mouth of Ban-Zhu-Kao River estuary (104° 55.185'N, 100° 27.840'E) adjacent to a fishing village. The other station (station 2) was located at the inner mouth of Teluk Rubiah River estuary (104° 55.00'N, 100° 27.761'E) surrounded with mangrove forest. The study was undertaken to compare the migratory shore bird species diversity, species richness, evenness, density and the species relative abundance during southward and northward migration in Kuala Gula Bird Sanctuary over a one-year period. Sixty-one migratory shorebirds species representing 12 families were identified. No significant ($P>0.05$) difference in the migratory shorebirds relative abundance and density was observed during northward and southward migration. However, species diversity index (H' = 3.6) of northward migration was significantly higher ($P<0.05$) compared to southward migration (H' = 3.4). Similarly the species richness of northward migration is higher ($P<0.05$) compared to southward migration. However, the species evenness does not show significant ($P>0.05$) difference in both stations.

Keyword: Kuala Gula Birds Sanctuary; Migratory shorebirds