

Temporal Variation of Shorebirds Population in Two Different Mudflats Areas

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Abstract : A study was conducted to determine the diversity and abundance of shorebird species habituating the mudflat area of Jeram Beach and Remis Beach, Selangor, Peninsular Malaysia. Direct observation technique (using binoculars and video camera) was applied to record the presence of bird species in the sampling sites from August 2013 until July 2014. A total of 32 species of shorebird were recorded during both migratory and non-migratory seasons. Of these, eleven species (47.8%) are migrants, six species (26.1%) have both migrant and resident populations, four species (17.4%) are vagrants and two species (8.7%) are residents. The compositions of the birds differed significantly in all months ($\chi^2=84.35$, $p<0.001$). There is a significant difference in avian abundance between migratory and non-migratory seasons (Mann-Whitney, $t=2.39$, $p=0.036$). The avian abundance were differed significantly in Jeram and Remis Beaches during migratory periods ($t=4.39$, $p=0.001$) but not during non-migratory periods ($t=0.78$, $p=0.456$). Shorebird diversity was also affected by tidal cycle. There is a significance difference between high tide and low tide (Mann-Whitney, $t=78.0$, $p<0.005$). Frequency of disturbance also affected the shorebird distribution (Mann-Whitney, $t=57.0$, $p=0.0134$). Therefore, this study concluded that tides and disturbances are two factors that affecting temporal distribution of shorebird in mudflats area.

Keywords : biodiversity, distribution, migratory birds, direct observation

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