The study of species diversity of waterfowl and waders in Gandomman wetland

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Abstract

The objective of this paper was determining population and species diversity of water birds and waders in Gandoman wetland during one year from mid-September ۲۰۱۷ to mid-September ۲۰۱۸ using SDR-IV software. Result showed from ۷۰ identified birds, ۲۸ species were waterfowl and ٤۲ species were waders. The largest population belonged to *Fulica atra*. Anatidae with ۳۳,۱۹ percent frequency was the largest family and Burhinidae with ۰,۰۰۳ percent was the smallest family. Winter had largest bird counting (۱٤٤۱۳ birds) and summer had the lowest bird counting (٤۰۳۹). Results obtained using biodiversity index showed that spring had the biggest diversity in terms of Shanon-Winer (۲,۹۷), Simpson (۱۰,۷۱) and Margalf (٦,٦۹) diversity and biggest evenness (۰,۹۲) in terms of Smith & Wilson. The largest species richness was found in spring (٦۰ species) and the lowest one was found in summer (٤۰ species). The largest bird frequency (bird number) belonged to waterfowl (۸۱,٥۷ %) and the lowest frequency belonged to waders (۱۸,٤۳). In contrast, the largest number of species (٦۰ percent) belonged to waders and the lowest one belonged to waterfowl (٤۰ percent). The results showed that Gandoman wetland had the highest numerical values of richness and evenness of water birds and waders in spring, and this indicated the quality and desirability of the wetland in spring compared to other seasons.

Keywords: Species diversity, Waterfowl, Waders, Gandomman wetland