Investigation on relative abundance and biodiversity index of waders and aquatic birds of Shirinsoo wetland in Hamedan Province

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Abstract

Wetland ecosystems are dynamic and productive habitats, which support high biodiversity. Identifying of birds habitat and their needs, especially those are in vulnerable situation is more importance for protection, management programs and continuous monitoring. This study done in Shirinsoo lagoon with an area of 15 hectares and average elevation of 1873 meters a.s.l. Identifying, counting and recording of composition of aquatic migratory birds' populations in the study area done by randome sampling one week per month during year of 2011 – 2012. Variation in number of species was the core part of sampling process. SDR-IV, BioDiversityPro and CAP 4.0 softwares used for data analysis. The species diversity calculated using Simpson, Shannon-wiener and Brillouin and evenness calculated using Simpson, Smith and Wilson and Camargo indexes. Diagram sort of Renyi biodiversity method showed most variety accurse in autumn. In addition, SHE analysis indicated that affect factors on the species diversity numerical index were richness and diversity components. According to the results, total birds of the shirinsoo lagoon are 2725 bird individuals from 54 bird species. According to the results, the largest population of migratory species observed in the November and the lowest one recorded in the February. This study indicated that largest population is *Chlidonias leucoptera* with a number of 295 and the lowest one is *Grus grus* and *Gallinula chloropus* with observed population of only one individual during the whole year.

Keywords: species diversity, aquatic birds, relativity abundance, Shirinsoo Wetland.