Study of spices diversity of wintering waterfowl and waders in Bamdezh wetland, Khouzestan province

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Abstract

Bamdezh wetland with an area of 4000 hectares is located in 48° 35′ 34″ E and 31° 44′ 40″ N northwest of Ahwaz city, Khouzestan province andsouthwest of Iran. This paper presents species diversity of wintering waterfowl and wader's fauna population in Bamdezh wetland for an eleven-year (2001-2011) monitoring duration. In order to study the overwintering diversity of birds, data from the censuses mid-winter bird counted according to the method of total count of Khuzestan department of environmental protection have been collected and analyzed. Data analysing for determine species diversity carried out by using Ecological Methodology and SPSS software. During an 11-year period from 2001 to 2011, 345930 wetland birds composed of 69 species from 6 orders and 14 families of the bird's fauna of Iran were observed during this study. The most common species was the Eurasian Teal (*Anas crecca*) with a total number of 161252. The results indicated that among families of wintering waterfowl and waders, the largest family was Anatidae with 90.57 percent abundance and the lowest was Sternidae with 0.01 percent. In the period of study, year of 2007 with 150937 individuals has the highest population numbers and year of 2010 with 676 individuals has the lowest. The highest species richness recorded in years of 2007 with 46 species in this year. The results showed that in this period waterfowl fauna with 90.85 percent and wader's fauna with 9.15 percent respectively has the highest and lowest abundances. According to the results of species diversity, the year of 2010 has the highest biodiversity of wintering waterfowl and wader's fauna in Bamdezh wetland and year of 2007 has the lowest biodiversity ($P < 0.05$).

Keywords: Species diversity, Waterfowl, Wanders, Bamdezh wetland, Khouzestan.