Diversity study of Wintering Waterfowls and Waders in Anzali Wetland, Iran

Abbas Ashoori[1*]
Hossein Varasteh Moradi[2]

1. PhD Candidate in Environment, University of Agricultural and Natural Resources Sciences, Gorgan, Iran
2. Faculty of Fishery and Environment, University of Agriculture and Natural Resources Sciences, Gorgan, Iran

[*]Corresponding author
abbasashoori67@gmail.com

Received date: 2014.03.08
Reception date: 2014.04.20

Abstract

This study investigated variations in diversity and abundance of wintering waterfowls and waders in four different parts of Anzali international wetland (East, West ,Central and Siahkieshim) in northern Iran based on 8 years of mid –winter census (2006-2007 and 2009 -2014). During this period, 70 species of water birds and waders wintering identified in this wetland. Highest number of birds was observed in 2014 and lowest in 2005 with 125427 and 68953 individuals respectively both occurring in Choukam. Anatidae family was the dominant group among water birds with 19 species and average 65.99 ±6.52 percent of total migratory population. Margalef and Menhinick's richness indices peaked in 2013 and 2006 respectively. Highest species diversity, based on Shannon-wiener and Simpson indices found in 2009. Species evenness index showed the peak in 2005 using Camargo index whereas it was the highest in 2009 and 2010 calculated by Simpson index. Highest diversity and density found in Central part of Anzali wetland in each year and in terms of Morista Index and PCA test, we found highest similarity in central and east parts of the wetland during the study period. The survey showed, despite threats and problems of Anzali wetland in recent years, changing diversity and density waterfowls and waders emphasizing on temperature condition was always in fluctuation.

Keywords: waterfowl, wader, diversity, biodiversity index, census of the mid –winter, Anzali wetland, Gilan.