Identification and abundance study of Copepoda in Anzali wetland, Estuary region, Caspian Sea and finding the relation between them with some environmental factors

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Abstract

The many specious of Caspian Sea fish immigrate to Anzali wetland for reproduction and some larvae spend the primary levels of their growth in this wetland. Therefore, Zooplankton has an important role in nutrition in Anzali wetland. For this reason, the geneses identification and abundance (finding the relation between abundance with some environmental factors) of Copepoda (a major group of zooplankton) has been studied in Anzali wetland, Estuary region and Caspian Sea. The sampling done in 5 stations in Caspian Sea, Estuary region and three stations in Anzali wetland which contain Nahang roga, Sorkhankol and water entrance to west wetland(Abkenar entrance)(for comparing the density in three different regions with different salinity) since March 2011 to September 2011. The samples filtered through the 30-micron plankton net and then transferred to laboratory for analysis. Seven genuses of Copepoda identified in this study. The most important genuses were *Acartia sp.*, *Cyclops sp.* and *Thermocyclops sp*ite relation between the density of Copepoda with environmental factors such as Oxygen, Temperature and pH were direct and with electrical conductivity (EC) and Transparency were inversed. The major density of Copepoda have been seen in the entrance of west wetland (Abkenar entrance) (107.47 per liter) and among the three regions of Sea, Estuary and Wetland, the Wetland has more density (with 59.26 per liter). Furthermore, the major density of Copepoda among months has been seen in August with 68.8 per liter. Also the studies have showed that the density of Copepoda in both Caspian Sea and the entrance of west wetland (Abkenar entrance) have had the meaningful statistics difference.

Keywords: Caspian Sea, Wetland, Estuary, Zooplankton, Copepoda