Population dynamics and seasonal distribution of zooplankton, Crustacea in the southern Caspian Sea

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Abstract
To study the diversity and structure of zooplankton, samples were collected at two commercial regions, Nowshar and Anzali harbors at the depths of 5, 10, 15 and 20 meters in the southern Caspian Sea in 2011. A total of 10 species formed zooplankton populations included of copepods (2 species), cladocera (1 species), balanidae (1 species), rotatoria (2 species), protozoa (1 species) and 3 temporary plankton species (meroplankton). The study showed that the average annual population density and biomass of zooplankton were 3120±552 ind/m^3 and 22.5±5.0 mg/m^3, respectively. Maximum average of annual zooplankton abundance and biomass were belonged to copepods with 998±60 ind/m^3 and 4.1±0.3 mg/m^3. Quarterly seasonal review (temporal distribution) of zooplankton abundance and biomass showed that most with the spring season of an average density of 3767±770 ind/m^3 and 32.9±7.4 mg/m^3, respectively. Seasonal distribution of zooplankton showed that crustacea (included copepods, cladocerans and balanidae) consisted 70.5% of population and 36.4% of biomass.

Keywords: Caspian Sea, Zooplankton, Distribution, Abundance and biomass.