

Study of Ecosystem Health of Bahmanshir Estuary Using Macro-benthic Based AMBI and Bentix Indices

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Abstract

The aim of this study was to investigate benthic invertebrate community and application of AMBI (AZTI's Marine Biotic Index) for determining quality of health status in Bahmanshir River in vicinity of Abadan City. Sampling was done to collect macrobenthose from six stations seasonally through March 2011 to Septambre 2011. Totally, 67 species identified in the study area. Portions of identified species were as follow; 40 polychates, 4 gastropods, 11 amphipods, 9 bivalves, 1 brittle star and 1 cumacean and 1 tanaid. The macrobenthose abundances ranged between 26.37 ind.m⁻² to 66.58 ind.m⁻² in summer and winter respectively. The ANOVA showed significant difference in seasonal abundances (P<0.05). The maximum absolute mean of abundances found in station3 (162.3 ind.m⁻²) and the least was related to station 6 (4.8 ind.m⁻²). The results of ANOVA showed significant difference of abundances between stations (P<0.05). The health of stations were examined by AMBI and determined that station 6 and station 3 had bad and good status respectively.

Keywords: *AMBI, Ecosystem health, Macrofauna, Bahmanshir River, Persian Gulf.*
