

Abstract:

In this study, density and biomass of macrobenthos community in the Gamasyab river, in Kermanshah Province were studied. Therefore, samples since July 2013 until September 2014 as every two months (six sampling period) at six stations with three replications to be. After sampled and fixed organisms in formalin 4%, in order to separation, identification and enumeration were transported to the laboratory. In this research physical and chemical characterization including waterflow, flow rate, temperature, depth, width, pH, waterflow rate, oxygen and EC were also assessed. Also Grain size bed sediment, determine soil texture and total organic matter (TOM) in the sediments was measured. In addition to determining the level of pollution in the river Hilsenhoff index (Hilsenhoff) was used In this study, 10 families of Macrobenthic invertebrates in the 10 orders were identified in which families Gammaridae, Lymnaeidae and Chironomidae Respectively, were the dominant families. Investigation in seasonal variations density and biomass macrobenthic invertebrates detected suggesting density and biomass of maximal in September and the lowest was in January. Also, station 6 and 4, respectively had the highest and lowest density and station 1 and 3, respectively had the highest and lowest biomass. Also, in this study, Changes qualitative indicators (Hilsenhoff) and Richness and diversity indicators (Simpson, EPT and EPT to Chironomidae) as well was investigated and Was determined Due to the species present in this river, That are indicators of polluted waters, Gamasyab River have water qualitative characteristics is unsuitable And Except from the 6 stations of the biological indicators and Have Suitable quality and is value of fishery, Rest of stations from hygienic quality were not appropriate.

Key Word:

Benthic Community, Total Organic Matter, Grain Size, Diversity indices, Gamasyab, Kermanshah.



University of Zabol
Graduate school
Faculty of Natural resource

**The Thesis Submitted for the Degree of Master of Science
(For the Degree in MS.C Fisheries)**

**Identification and determination of macro
benthic community's diversity and density
in the Gamasyab River (Kermanshah
Province)**

Supervisor:

Dr Javad Mirdar Harijani
Dr Ahmad Gharaei

Advisors:

MS.C Mojtaba Poriya

By:

Mohsen karami

June 2014