Seasonal changes of benthic macro invertebrate communities in Haraz River from Iran

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Abstract

The aim of this study is to assess the relationship between river water quality and the distribution of benthic macro invertebrate communities in Haraz River from Iran. In this study, benthic macro invertebrate communities along the stream were sampled in 2015 at each of the nine stations with three replicates using Surber net samplers (30.5×30.5 cm_2). BMWP (Biologic Monitoring Working Party) biotic Index, Simpson Diversity Index, EPT Species Richness Index and Pielou Evenness Index were used for biological assessment of water quality. A total of 3781 (spring 769, summer 1092. autumn 1095 and winter 825) benthic macro invertebrate specimens belonging to 4 orders, 11 classes and 16 families were identified. The lowest number of taxa was recorded in spring while the highest was recorded in autumn. Station 9 had the lowest number of taxa while the highest number of taxa was recorded at Station 3. Calculated results of the stations 1 to 6 indicated water quality conditions were suitable and substantial level of organic pollution were present for stations 7 and 8 and also, station 9 indicates water quality was fairly poor, that indicates the unsuitable conditions of the river at this station.

Keywords: Water quality, Benthic macro invertebrates, Diversity, Haraz River.

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