

Assessing Biotic Integrity and Effects of Land Cover and Habitat Structure on *Capoeta gracilis* (Keyserling, 1891) and Macroinvertebrates in Zarin Gol

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Fish and macroinvertebrate assemblage composition, in stream habitat features and surrounding land use were investigated in Zarin-Gol stream in east of the Elburz Mountains, Iran. 5 samples were taken at different land use (reference site, forest, grassland, farmland, and residential land). Comparison among sites showed a considerable variability in both quantitative and qualitative measurements of *C.gracilis* in instream habitat structure. Maximum abundance was observed in near forest and minimum abundance was found in near residential land. Fish and macroinvertebrates appeared to respond differently to landscape configuration and habitat variables as well. Fish showed a stronger relationship to flow variability and immediate land use, while macroinvertebrates correlated most strongly with dominant substrate ($p<0.05$). Thus, we concluded that the importance of local habitat conditions is best revealed by comparisons at the within-subcatchment scale.

Keywords: *Capoeta gracilis*, Macroinvertebrates, Biomonitoring, Zarin-Gol stream.