



Water Quality Assessment of Kela and Ejersa Rivers Using Benthic Macroinvertebrates, Ethiopia

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Abstract: Assessment of water quality of Kela and Ejersa Rivers was carried out from March 2019 to June 2019. Benthic macroinvertebrates were collected from 5 different sampling sites randomly using 500- μ m mesh kick-net. A total of 684 benthic macroinvertebrates was recorded from the rivers, from which Chironomidae, Syrphidae and Perlidae were the three most abundant taxa collected. The result showed that site K1, K2 and E1 recorded the highest number of benthic macro invertebrate with the highest value of Shannon index and lowest value of Hilsenhoff family biotic index (H-FBI) which indicated good water quality while site E2 and E3 showed the lowest number of benthic macro invertebrate with the lowest value of Shannon-Wiener diversity index and highest value of Hilsenhoff family biotic index (H-FBI) which indicated poor water quality. The result obtained from community loss index showed that the degree of dissimilarity increases from site K1 (0.96) to site K2 (1.14), site E1 (1.34), site E3 (1.58) and site E2 (1.73) respectively which indicated the ecosystem disturbance at these study sites. The present study indicated that various anthropogenic activities are impacting the water quality of Kela and Ejersa Rivers, which needs management measures on these rivers.

Keywords: Benthic macro invertebrate, Kela river, Ejersa river, Water quality
