



Assessment of Biological Water Quality Based on Functional Feeding Groups of Benthic Macroinvertebrates: A Case Study of Pampa River

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Abstract: The present study was focused on the biological monitoring of the Pampa river in the Perunad region using Biological Monitoring Working Party (BMWP) and also evaluated the functional feeding groups of benthic macroinvertebrates communities. Benthic macroinvertebrates were sampled for one year from February 2016 to January 2017. Two sampling stations were selected and out of this one station was a disturbed sand mined area. On the abundance and tolerance values, BMWP index of the invertebrates was determined to evaluate the water quality of Perunad area. A total of 1251 individuals of benthic macroinvertebrates belonging to 24 families were collected from the locality during the study period. BMWP score of the study area varied from 53 to 96, which showed that the water quality of the stations was clean but slightly impacted and moderately impacted. The five major functional feeding groups were represented as collector gatherers, shredders, predators, collector filterers and scarpers and dominant functional feeding group was collector gatherers and collector filterers were the least representative. The pollution tolerant benthic macroinvertebrates are dominantly inhabited in the study area.

Keywords: Pampa river, Biomonitoring, BMWP, FFG, Collector gatherers
