



Aquatic Insects as Indicator of Water Quality: A Study on a Small Stream of Shillong, Meghalaya, North-east India

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Abstract: Aquatic insects are widely used as indicator of water quality for many freshwater ecosystems. The present study was conducted seasonally in four different stretches of Umrisa Stream, Shillong, Meghalaya North-east India during 2015. Insects were collected using kick net method and all out search method. Analyses were done using Past software. A total of 9 orders, 25 families and 45 genera were recorded during the study. The diversity of aquatic insects was highest during pre-monsoon. Family Biotic Index (FBI) revealed good to excellent water quality across seasons and sites. Biological Monitoring Working Party Thailand (BMWP^{THAI}) Score and Average Score Per Taxon Thailand (ASPT^{THAI}) showed moderate and doubtful to good and clean water quality respectively. SingScore inferred Umrisa stream to have excellent water quality in all the seasons and sites. SIGNAL Score revealed the stream as mildly polluted to healthy habitat. This study revealed that different biological monitoring scores though differed with their results, overall reflected good water quality with signs of initiation of disturbance in the stream.

Keywords: Aquatic insects, Bioindicators, Water quality
