

Relationships between biodiversity indices of macrobenthic invertebrates and some water chemical parameters in Semenyih River.

Abstract

River macrobenthic invertebrates have been widely used to assess the health of river ecosystems (Mason and Parr, 2003; Azrina et al., 2006; Blanco and Becares, 2010; Torrisi et al., 2010). Previously, a list of macrobenthic invertebrates found at the Semenyih River in 1997 was reported by Yap et al. (2003) but they did not correlate the density and abundance of these species with physico-chemical parameters of the river. The species list reported by Yap et al. (2003) included bioindicators such as caddisflies and mayflies for the clean ecosystem and resistant worms such as *Limnodrilus hoffmeisteri* for the polluted ecosystem. The distribution and abundance of macrobenthic invertebrates along a river are affected by many abiotic factors (Krebs, 2001). These abiotic factors may include physico-chemical parameters that could influence the two basic characteristics of an ecological study on the macrobenthic invertebrates. Hence, correlation analysis between the abiotic factors and distribution/abundance of the macrobenthic invertebrates is important to understand an ecotoxicological phenomenon in a river system.

Keyword: Semenyih River; Macrobenthic invertebrates; Biodiversity;.