

De Deckere, E., Z. Adamek, M. Großschartner, S. Höss, V. Leloup, I. Munoz Gracia, C. Orendt, C. van Liefferinge, P. von der Ohe, G. Wolfram, 2007. Can macro-invertebrates be used to distinguish different types of stress? Abstract, submitted for the SETAC Europe 17th Annual Meeting in Porto, May 2007.

Due to the implementation of the European Water Framework directive the use of biological communities has become a primary component of water resource evaluations. Several types of indices have been developed for evaluation based on the macro-invertebrate community or based on specific groups, like Oligochaetes, Chironomidae, Bivalves or nematodes. These indices are used to classify the degree of pollution in an aquatic system by determining the tolerance or sensitivity of an animal to a given pollutant.. The question is whether the result of a specific index can indicate whether stress is caused by a specific group of contaminants. A comparison of the Spear index and several saprobic indices suggest that at certain locations the stress is certainly not due to organic contaminants but most likely due to high organic load. The oligochaete index (IOBS) indicates whether stress is caused due to metals or organic contaminants. Within this study several biotic indices have been combined at a limited number of sites to see whether it is indeed possible to distinguish the possible stress factors.