


Aquatic macroinvertebrate community response to regional sediment loads in macrophyte beds of a Prairie Pothole Lake

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Introduction




Macroinvertebrates are a highly diverse group of animals in freshwater ecosystems. They play a critical role in the food web and are important indicators of water quality. Sediment loads from agriculture and urban areas can impact these organisms and their habitats.

Objectives

The study objectives for this project were to evaluate effects of regional sediment loads on macroinvertebrate communities in macrophyte beds of a Prairie Pothole Lake.

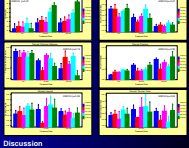
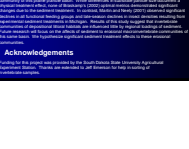
Methods

This study is based on a 10-year (2003-2012) study of macroinvertebrate communities in macrophyte beds of a Prairie Pothole Lake. The study area is located in the northern part of South Dakota. The study was conducted in two phases: a pilot study in 2003 and a main study from 2004 to 2012. The study was conducted in two phases: a pilot study in 2003 and a main study from 2004 to 2012. The study was conducted in two phases: a pilot study in 2003 and a main study from 2004 to 2012.

Results

The percentage of fine sediments and water column turbidity were associated with high sediment loads and high turbidity. The percentage of macroinvertebrates in macrophyte beds was significantly higher in low sediment and low turbidity sites compared to high sediment and high turbidity sites.

Discussion

The results of this study suggest that sediment loads and turbidity have a significant impact on macroinvertebrate communities in macrophyte beds of a Prairie Pothole Lake. The study highlights the need for further research on the effects of sediment loads and turbidity on these ecosystems.

Acknowledgements

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