ORAL PRESENTATION

EFFECTS OF A SIMULATED UPWELLING EVENT ON THE LITTORAL EPILITHIC DIATOM COMMUNITY OF AN ANCIENT TROPICAL LAKE.

Andrew J. Bramburger[1], Paul B. Hamilton[2], Peter E. Hehanussa[3], and G.Douglas Haffner[1]

[1]Great Lakes Institute for Environmental Research, University of Windsor, Windsor ON. N9B3P4.
[2]Research Division, Canadian Museum of Nature, Ottawa, ON. K1P5P6.
[3]Indonesian Institute of Sciences, Kompleks LIPI, Cibinong, West Java, Indonesia.

Disturbance can be an important structuring mechanism in biological communities, and there has been a recent focus in the literature on the mechanisms of continued community function after disturbance events. Several authors propose ecological redundancy related to high taxonomic diversity as the most important mechanism of continued function in microbial systems. In this study we investigated whether an impoverished community composed primarily of specialized endemic forms exhibited resistance or redundancy when subjected to disturbance in the form of a simulated upwelling event. Our results were not consistent with either of the aforementioned mechanisms, with various taxa responding differently under both control and disturbance treatments. We propose an alternative mechanism, “Ecological independence,” to describe the observed pattern.