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The Status of Benthos in Lake Ontario

The benthic community of Lake Ontario was dominated by an amphipod (*Diporeia* spp.) prior to the 1990's. Two dreissenid mussel species *D. polymorpha* (zebra) and *D. bugensis* (quagga) were introduced in 1989 and 1991 via ballast water exchange. *D. bugensis* was observed as deep as 85 m in 1995, indicating the species ability to spread to deep, soft substrate habitats. As dreissenids became established, *Diporeia* dramatically decreased in abundance. *Diporeia* has disappeared in the shallowest zone (12-88 m) between 1994 and 2008. Recent surveys in 2003 and 2008 indicate that *Diporeia* are also disappearing in deeper areas of the lake (>90 m). The loss of *Diporeia* and the increase of *Dreissena* have implications on the trophic dynamics of the Lake Ontario benthic zone. *Keywords: Benthos, Diporeia, Dreissena.*

This abstract does not necessarily reflect USEPA policy.