

STATUS OF THE AMPHIPOD *DIPOREIA* SPP. IN LAKE SUPERIOR, 2011

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Amphipods of the genus *Diporeia* have historically been the dominant benthic macroinvertebrates in deeper waters of the Laurentian Great Lakes. Although *Diporeia* populations in the lower Great Lakes have experienced severe declines in recent years, densities have remained relatively stable in Lake Superior. We used a probability survey design to assess population density of *Diporeia* in Lake Superior. During September 2011, *Diporeia* were sampled at 53 sites using a Ponar grab. Twenty-four sites were in the nearshore (0-100 m depth) stratum and 29 in the offshore (>100 m) stratum. The lake-wide mean density of *Diporeia* was 855 ± 146 (SE) m^{-2} . In nearshore and offshore regions, mean densities were $1482 \pm 184 \text{ m}^{-2}$ and $688 \pm 180 \text{ m}^{-2}$, respectively. These values are greater than those from a similar survey conducted in 2006 (lake-wide mean $446 \pm 63 \text{ m}^{-2}$), and are much higher than those reported from the only previous comprehensive lake-wide survey of *Diporeia*, conducted in 1973. Greater understanding of the spatial and temporal variability of *Diporeia* populations will assist further refinement of monitoring designs.