



Fig. S1. Calibration curve for determination of maximum water velocity on the sheltered shore of Dixon Island (DS). Three replicate dissolution rigs were concurrently placed in all four sites for a period of 10 days. The amount of zinc dissolved from three sites (SS, HE, SE) were plotted against their known maximum water velocity from wave drogue data and the maximum velocity experienced in Dixon Sheltered (DS) was determined (1.8 m s^{-1}) by the amount of zinc dissolved at the site (3.16 g) and the calibration curve (dotted line). (calibration curve: $F_{1,11}=45.991$, $P<0.001$, $R^2=0.87$)