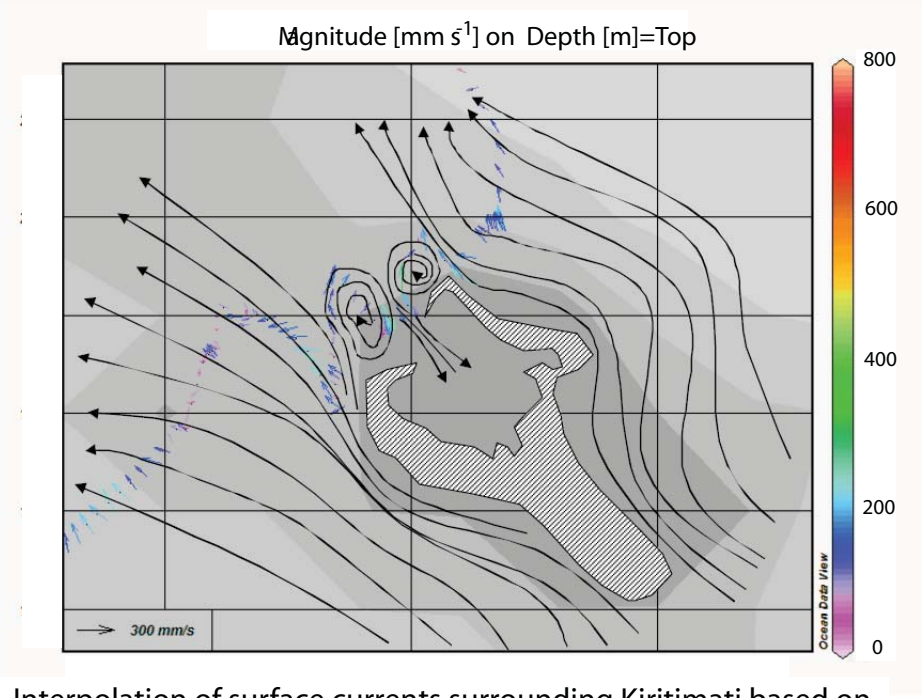
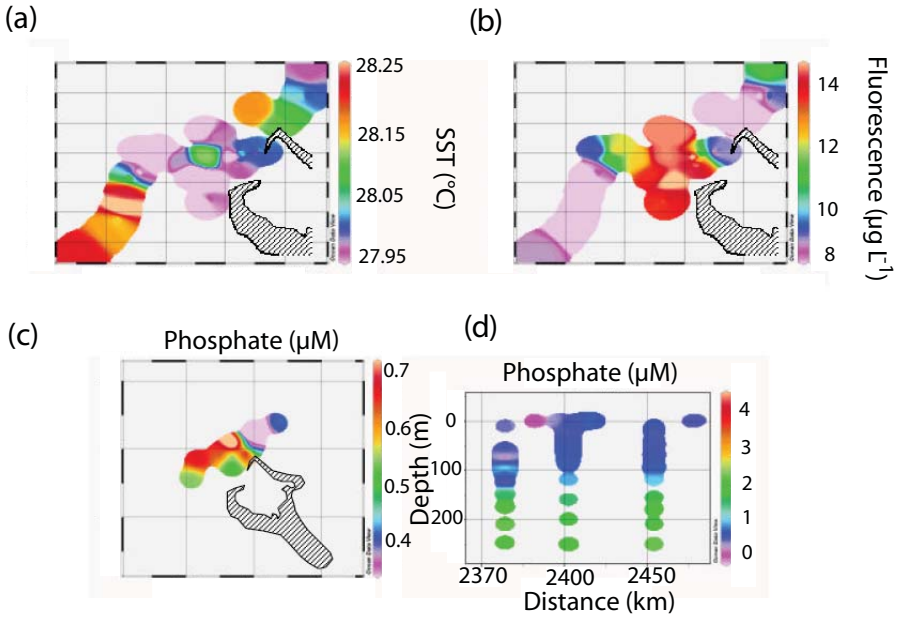
Figures S1 and S2: Supporting Oceanographic Data

Fig. S1. Interpolation of Surface Currents



Interpolation of surface currents surrounding Kiritimati based on ADCP vector data from a single transect. Evidence of two anti-cyclonic eddies is visible in the lee of the island with an inflow of surface water to the lagoon. The prevailing current is heading North West. (Chaput, Modlin, Rydz & Budzynkiewicz, unpublished)

Fig. S2. Sea Surface Temperature, Fluorescence, and Phosphate



a) Sea surface temperature data shows cooler waters inside the eddies than outside. b) Fluorescence data shows greater productivity inside the eddie, which is associated with higher phospate levels at the surface (c) of the eddies and at depth (d). The data at distance 2370 km are within the eddy and the other data (2400 and 2450 km) are outside the eddy. (Chaput, Modlin, Rydz & Budzynkiewicz, unpublished)