

Davis Expedition Fund

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Exploratory investigation of species distribution and diversity of plankton in mangrove habitats, Belize.

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21 June 2000

Abstract of Project Report

In March 2000 a two week exploratory expedition to Belize was conducted, in order to undertake a brief investigation of the species distribution and diversity of plankton in the mangrove habitats of Belize, Central America. Three sites were visited: Bacalar Chico off the northern coast, Turneffe Atoll outside the Barrier Reef off central Belize and Port Honduras in the very south. Basic methods used to sample the surface and middle of the water column respectively consisted of a small dip net 25 cm wide with mesh size 0.1 cm and a one litre bottle. Supplementary data was collected by light-traps deployed overnight. Water depth, temperature, salinity, pH and turbidity were measured at each station. Results analysed to date indicate that a combination of methods is required for the collection of plankton. In addition there appears to be a relationship between the abundance of zooplankton and turbidity, with the lowest overall number of animals recorded from Port Honduras, the most turbid of the study sites. Eggs were most abundant within the plankton samples. Larvae of fish and various crustaceans were also recorded, but remain to be identified along with adult zooplankton and the phytoplankton element of the samples.