

At these stations, three interrelated data were collected.

(a) Trace study of the acoustic volume scattering strength profile at two different frequencies (60khz and 105 khz).

(b) Sampling of the biological material (zoo-plankton) largely responsible for the scattering as well as water samples to show the phytoplankton and nutrient levels.

(c) Profiling of the temperature and salinity in the same areas, using a portable CTD meter for in-situ measurements.

These parameters are related since the temperature and salinity affect the biological processes which affect the acoustic scattering. Quantitative analysis of the results obtained may help lead to better understanding of the relationship between acoustical scattering and the biological distributions, thereby making it possible to monitor oceanic productivity and ecological well-being by acoustic means.