

Short cruise report of ALKOR journey 401

The cruise served as PRACTICAL at SEA for the students of Biological Oceanography at the GEOMAR.

The objective was to give an impression of the special circumstances of scientific work on board of a research vessel. For that purpose, measurements of the hydrography, the nutrient chemistry, the oxygen content, and the plankton composition as well as benthos investigations with a grab, a dredge and video were performed.

During the first leg of the journey that led from the Kiel Bay with moderate salinities into the Kattegatt/Skagerrak with high salinities to Frederikshavn, the benthic habitat was studied. In Frederikshavn, the scientific personnel was changed and the cruise was continued back to Kiel to study the pelagic habitat. Samples were taken at 11 pelagic stations and at 11 benthic stations. At each pelagic station, the following instruments were used: a water bottle rosette equipped with a CTD, fluorescence and oxygen probes, a Secchi-disc, a quantameter, and Apstein nets with 20 and 200 μm mesh size, respectively. At the benthic stations, a hydrographic probe, a video in a towed frame, a grab and a dredge were used.

The cruise was planned to show the steep hydrographical gradient from the Kiel Bay to the Northern Kattegatt/Skagerrak and its biological changes. The measurements should show the differences of the plankton communities along this gradient and served to explain these differences on the basis of the physical and chemical analyses of the environmental parameters.

