ZOOPLANKTON

FOOD IN THE BLACK SEA. II. MNEMIOPSIS LEIDYI

E. Mutlu

Institute of Marine Sciences, Middle East Technical University

Key Words: Black Sea, Ctenophora, *Mnemiopsis*, distribution, biometry, stomach content

The distribution of *Mnemiopsis leidyi*, Agassiz 1865, in the Black Sea was determined using plankton samples collected above the anoxic zone (maximum depth 200 m) in the summer, winter, and spring from 1991-1995. Distribution was patchy. Average biomasses of 15 to 500 gm-2 were measured and abundances varied from 10 to 180 individuals m-2. Biomass and abundance peaked in winter and there was a secondary peak in the summer. The distribution of *M. leidyi* was correlated with hydrographic features in the Black Sea with higher concentrations in anticyclonic gyres. The centers of the two main cyclonic gyres generally had a low biomass of *M. leidyi*. From July 1992 to March 1995, the populations were largely offshore. *M. leidyi* were confined to the upper part of the mixed layer both day and night. Some individuals displayed a negative taxis to daylight and, localized below the thermocline at night. Smaller *M. leidyi* (1.5-2 cm) were present in the winter and individuals reached maximum size in the summer. Although reproduction was continuous throughout the year, there were two distinct peaks: the larger peak in the summer and the smaller peak in the winter. Microscopic analysis of stomach contents showed that copepods and molluscs form their main diet.

POSTER

INFLUENCE OF VESSEL TRANSIT PATTERNS ON BALLAST WATER
TREATMENT OPTIONS OR EXOTIC AQUATIC ORGANISMS

A.J. Niimi

Department of Fisheries and Oceans, Burlington, ON, Canada

Key Words: vessel transit, ballast water, exotic aquatic species

Ballast water discharge has been identified as an important means of introducing exotic aquatic organisms to waters well beyond their natural geographic range. Preventative measures such as offshore exchange have been used with some success by vessels carrying exchangeable ballast. Efforts to develop active treatment measures have so