

DISTRIBUTION OF GELATINOUS ZOOPLANKTON IN THE BLACK SEA IN JULY 2013

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Objective: In this study, the distribution of gelatinous zooplankton in the Black Sea was studied in July 2013 and results were compared with those from previous studies to understand ecosystem dynamics.

Methods: Samples were collected during daylight hours by a single vertical tow (from the bottom to the surface for inshore and from the anoxic boundary to the surface for deep stations) using a WP-2 closing net (200 mm mesh size, 57 cm mouth diameter) by R/V Bilim 2. Due to the difficulties of measuring weight on board, the lengths of *Pleurobrachia pileus*, umbrella diameters of *Aurelia aurita*, and the volumes of *Mnemiopsis leidyi* and *Beroe ovata* were measured individually.

Results and Discussion: A total of 3526 individuals were sampled and measured. Only 7 *Beroe ovata* individuals were observed during the cruise. The *Pleurobrachia pileus* biomass was greater at deep water stations whilst the biomass of *Mnemiopsis leidyi* was greater at inshore stations. In terms of abundance, *Pleurobrachia pileus* was the most abundant species from west to east and from inshore to the deep stations. For the commonest three macrogelatinous zooplankton species found here, the most abundant groups in the size-frequency diagrams were the smallest size classes indicating mid-summer to be a highly reproductive period for these species.

Keywords: Gelatinous zooplankton, July, Black Sea