

# Distribution and Size Structure of Non-indigenous Ctenophore *Mnemiopsis leidyi* (AGASSIZ, 1874) in the West Black Sea, 1998-2001

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**Abstract:** The present paper focuses on the summer dynamic of non-indigenous ctenophore *Mnemiopsis leidyi* after the invasion of its predator to the Black Sea. Another ctenophore - *Beroe ovata* (MAYER, 1912), *Mnemiopsis* was found in a range to 292 ind.m<sup>-3</sup> off the Bulgarian Black Sea coast during the summers of 1998-2001. The results revealed a great variability of *M. leidyi* biomass in terms of wet weight and displacement volume, respectively. The allometric relationship of wet weight and individual body size (total length) was apparent ( $R^2=0.771$ ). In respect to *Mnemiopsis* density, the years 1998, 2000, 2001 are classified as “normal”, and 1999 - as “poor”. Specific coastal areas in the West Black Sea are distinguished as hot spots (highly risked) due to the constant high amounts of *Mnemiopsis*. The results given above characterize the post-invasion period 1998-2001 as transitional, with *M. leidyi* performance still under adjustment to the ctenophore prey-predator couple.

**Key words:** invasive ctenophores, *Mnemiopsis leidyi*, *Beroe ovata*, distribution, size structure, West Black Sea