

Feeding performance of the copepod *Oncaea media* (Giesbrecht, 1891)

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Abstract

The cyclopoid copepods of the genus *Oncaea* are an important component of the zooplanktonic community in the Mediterranean Sea due to their numerical abundance and distribution in coastal and open waters. Despite their importance in the marine ecosystem, the food habits of these copepods have not been clarified to date. With the aim of shedding some light on this topic, we exploited the population of *Oncaea media* from a coastal area of Saronikos Gulf (Eastern Mediterranean) to explore the functional response of wild females on naturally occurring planktonic assemblages. Thus, its abundance was estimated and eight grazing experiments were conducted between February 2010 and April 2011. During this period, the natural phytoplankton and protozoans provided as food varied in abundance among the experiments. Diatoms dominated the microplankton community in winter, whereas dinoflagellates and ciliates were more abundant in spring and autumn. *O. media* contributed to copepod abundance up to 20% and the highest values were found during February and October. This species cleared the natural food preys at different rates and appeared to change its feeding behavior depending on the ambient chlorophyll concentration. The clearance rates of *O. media*, ranging between 8.3 for ciliates and 49.7 ml cop⁻¹ day⁻¹ for dinoflagellates, typically declined with increasing food concentration. The maximum clearance rates (exponential decay equation) ranged from 16.5 to 46.3 ml cop⁻¹ day⁻¹ (diatoms and dinoflagellates respectively). We consider that this study provides additional information on feeding of *O. media* towards a better understanding of the functional role of this species.

Keywords: *Oncaea*, feeding, Mediterranean Sea.

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