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Lake Trasimeno is a meso-eutrophic, shallow (<6 m deep) and large lake (~120km²) located in central Italy, at 259 m above sea level.

A preliminary age model based on pollen data for a core retrieved along the present southern shore of the lake (north of the Panicarola town) suggests that the record may be as old as Middle Pleistocene. An ongoing multidisciplinary study of a 175 m long sedimentary core includes magnetic properties, sedimentary microfacies, paleontology, palynology and bulk elemental geochemistry.

This contribution focus on the paleoenvironmental reconstruction of the topmost 30 m of the core using ostracods. A total of 245 samples have been taken at a 13 cm sampling interval.

On the whole, 13 species referable to 10 genera were collected (*Ilyocypris gibba*, *Candona neglecta*, *Candona angulata*, *Cypridopsis vidua*, *Heterocypris salina*, *Limnocythere sp.1*, *Limnocythere stationis*, *Darwinula stevensoni*, *Cyprideis sp.*, *Leptocythere spp.*, *Fabaeformiscandona fabaeformis*, *Cycloocypris ovum*). Abrupt changes in the abundance of the assemblages were found along the studied core alternating sections with very abundant ostracod remains with others with scant (or even null) individuals. Moreover, the changes observed in the composition of the ostracod assemblages are interpreted as recording environmental variations. In particular, two intervals are significant for the paleoenvironmental reconstruction of this sedimentary succession: 1) the section from 25.60 m to 23.50 m is characterized by a rich ostracod fauna (dominated by *Cyprideis sp.*, *Candona angulata* and *Leptocythere spp.*). These assemblages possibly indicate an increase in salinity or alkalinity of the water body; 2) the interval from 21.05 m to 17.60 m contains *Ilyocypris gibba*, *Candona neglecta*, *Cypridopsis vidua*, *Heterocypris salina*, *Limnocythere sp. 1*, *Limnocythere stationis* and *Darwinula stevensoni*. *Limnocythere stationis* is a central European species, until now in Italy only described in the Holocene of Sicily and now in the Panicarola core (this study) suggesting most probably a period of cool waters. Further ostracod identifications as well as geochemical analyses on their valves will provide a more detailed reconstruction of the timing and magnitude of paleoclimatic changes in central Italy.