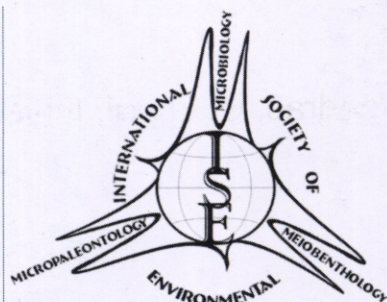


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## SEASONAL DYNAMICS OF MEIOBENTHOS FAUNA FROM A SALT LAKE OF THE CRIMEA (UKRAINE)

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### INTRODUCTION

Monthly collection of benthos, water sediment samples at a model marine origin lake in the Crimea (Hersonesskoe Lake) was made. The vertical and seasonal distribution and diversity were investigated. Salinity changed from 35 to 110‰ in this lake. The aquatic invertebrate fauna of hypersaline lakes is listed and the temporal and spatial distribution of the fauna is described. Abundance and biomass values were analysed using univariate and multivariate techniques.

### METHODOLOGY

The material was collected monthly from March 2005 to March 2006 at 5 stations in Hersonesskoe Lake. The samples of meiobenthos were taken by a 20 cm<sup>2</sup> meiobenthos tube from the surface of the ground and from makrophyte mats. Then, the sediments were washed and fractionated using a set of sieves with the smallest pore size of 64 µm, and stained with Bengal Rose for subsequent counts of organisms under a light microscope.

### RESULTS

Meiobenthos in Hersonesskoe Lake consisted of Nematoda, Harpacticoida and Ostracoda (Figure 1-7). Harpacticoida dominated, reaching great abundance (to 3\*10<sup>6</sup> ind/m<sup>2</sup>), but were represented only by three species, all species are usual for hypersaline lakes. Abundance of all taxa varied during the period in dependence of seasons. The least individuals were noted in summer.

**Nematoda** (identified by Vs.Tsalolychin, Zoological Institute Russian Academy of Science)

*Monhystera rotundicapitata* Filipjev

*Penzancia longicaudata* (Filipjev, 1992)

*Symplacostoma longicollae* Bastian, 1865

*Oncholaimus* sp.

**Harpacticoida** (identified by E. A.Kolesnikova)

*Cletocamptus retrogressus* Schmankewitsch, 1875

*Nitocra spinipes* Boeck, 1864

*Mesochra* sp.

**Ostracoda** (identified by V. Grinciov)

*Eucypris inflata* (G.O.Sars, 1903)

### CONCLUSIONS

The aquatic invertebrate fauna in Hersonesskoe Lake is typical of hypersaline lakes of marine origin. Though the species richness and diversity are not high in Hersonesskoe lake, meiobenthos reached extremely great abundance, especially in the makrophyte mats. The seasonal dynamics is precisely expressed in the lake.

### ACKNOWLEDGEMENTS

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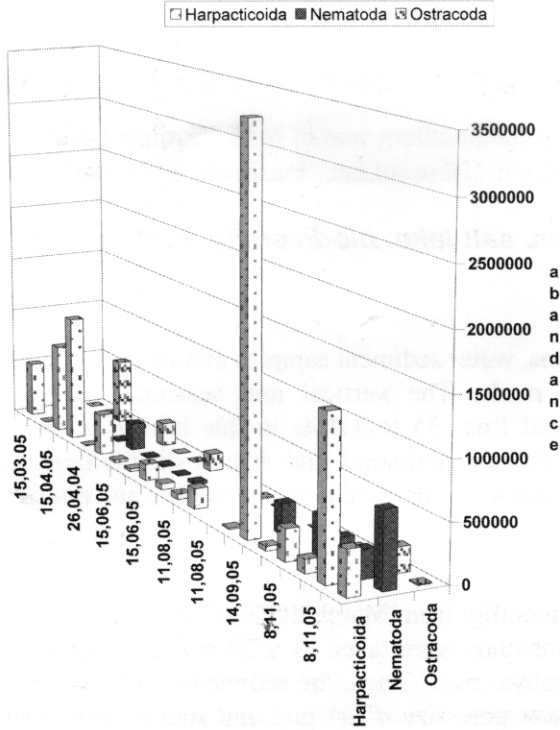


Figure 1 Seasonal dynamics (2005) of abundance (ind/m<sup>2</sup>) of the main meiobenthos taxa in Hersonesskoe Lake (near Sevastopol).

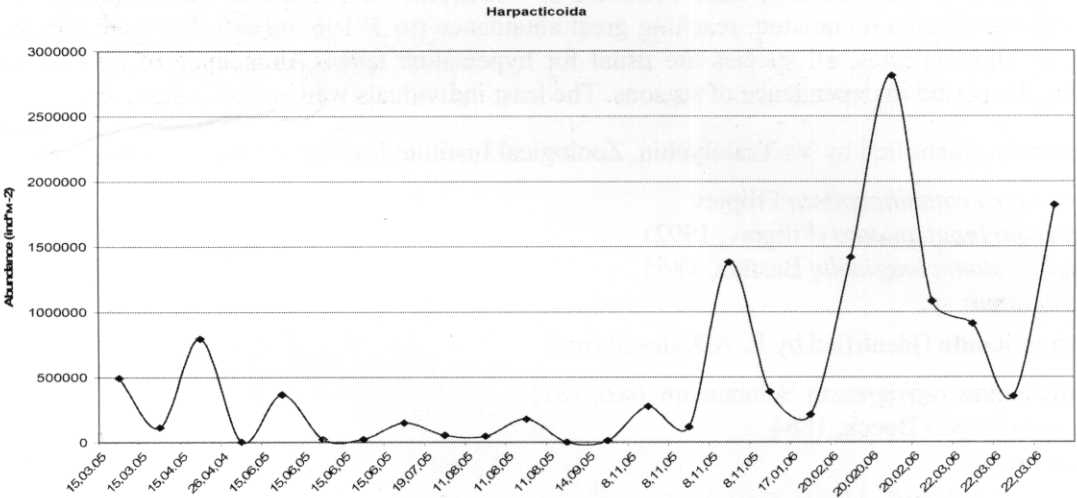


Figure 2. Seasonal dynamics (2005-2006) of Harpacticoida (ind/m<sup>2</sup>) in Hersonesskoe Lake (near Sevastopol).

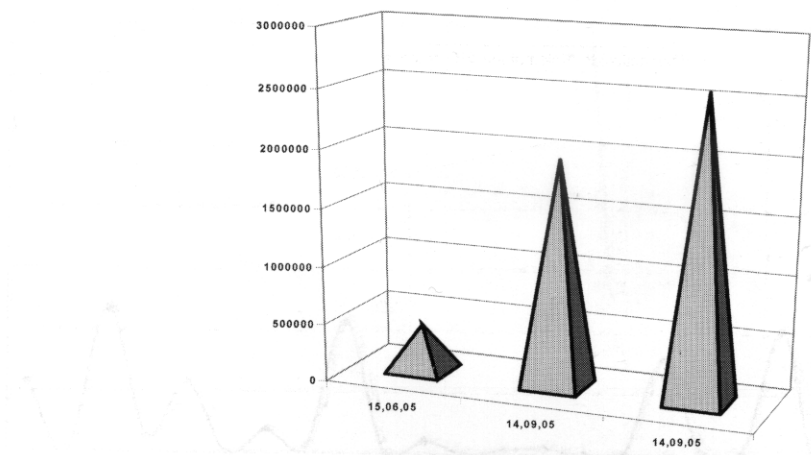


Figure 3. Abundance (ind/m<sup>2</sup>) of Harpacticoida in macrophyte mats in Hersenesskoe Lake (near Sevastopol).

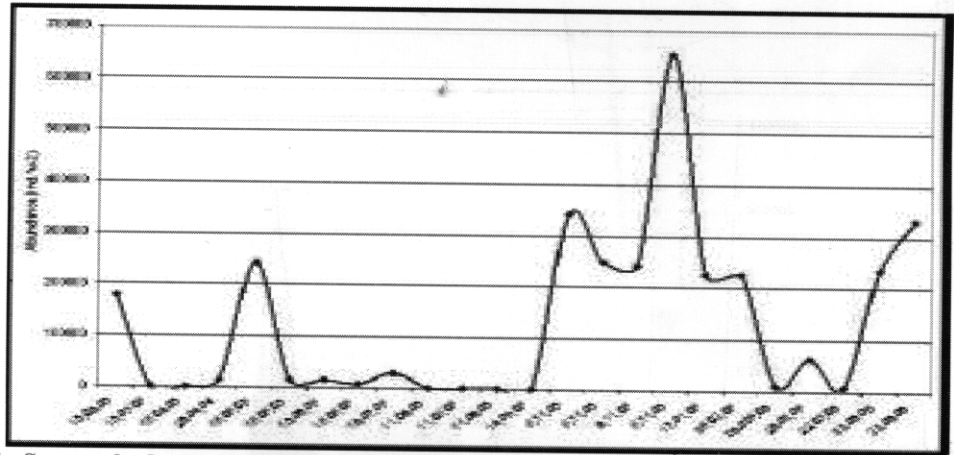


Figure 4 Seasonal dynamics (2005-2006) of Nematoda (ind/m<sup>2</sup>) in Hersenesskoe Lake (near Sevastopol).

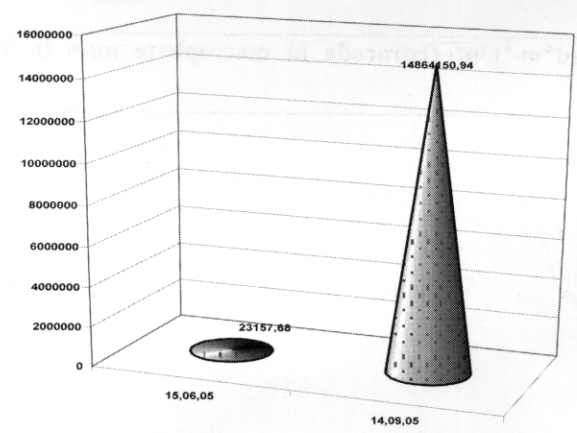


Figure 5 Abundance (ind/m<sup>2</sup>) of Nematoda in macrophyte mats in Hersenesskoe Lake (near Sevastopol).



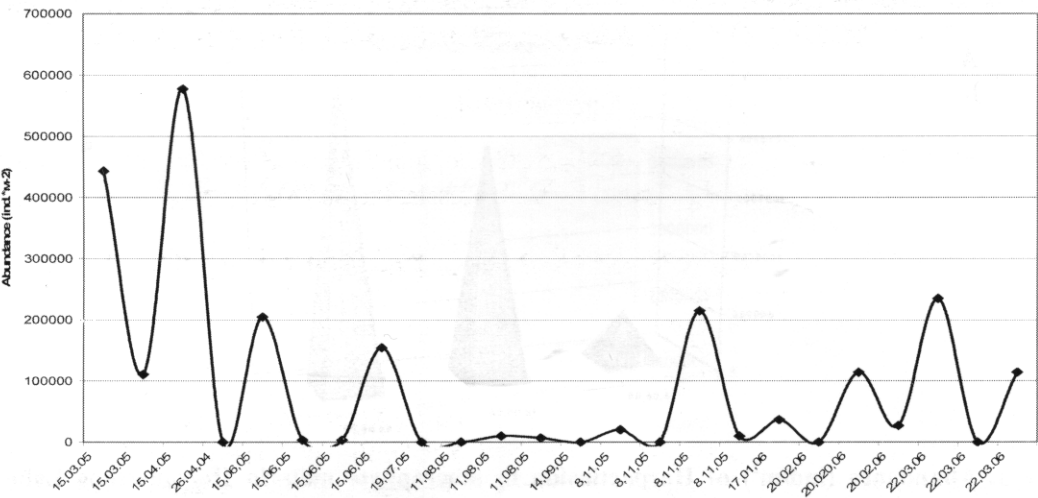


Figure 6. Seasonal dynamics (2005-2006) of Ostracoda (ind/m<sup>2</sup>) in Hersonesskoe Lake (near Sevastopol).

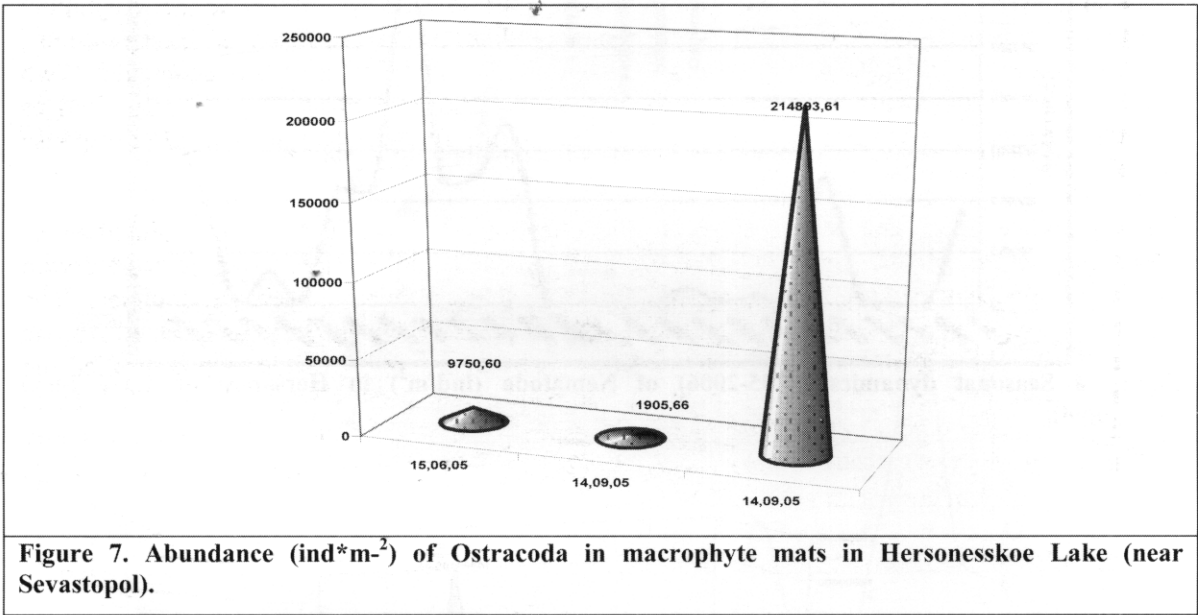


Figure 7. Abundance (ind\*m<sup>-2</sup>) of Ostracoda in macrophyte mats in Hersonesskoe Lake (near Sevastopol).