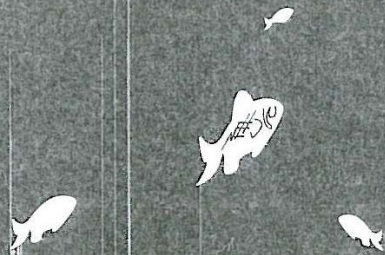




Institute of Marine Research

# abstract book



plankton symposium  
and  
methodologies, equipments &  
environmental research  
workshop

co-ordination by  
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## Zooplankton communities and trophic state index in Azibo and Serra Serrada reservoirs (River Douro, Portugal)

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Zooplankton abundance and composition were followed monthly in Winter and biweekly in Summer, starting at January 2000, in two reservoirs of River Douro watershed. Physical factors such as temperature, dissolved oxygen, conductivity, water transparency, as well as nitrate and ammonia were measured *in situ*. Total phosphorus,  $\text{PO}_4^{3-}$ , and chlorophyll *a* were eventually determined in the laboratory. Finally, trophic state of both reservoirs was assessed by computation of Carlson's Trophic State Index. Zooplankton in Azibo Reservoir included the rotifers *Asplanchna* sp., *Gastropus* sp., *Keratella cochlearis*, and *Polyarthra* sp.. *Copidodiaptomus numidicus*, *Acanthocyclops robustus*, *Daphnia longispina*, *Ceriodaphnia pulchella*, *Bosmina longirostris*, *Diaphanosoma brachyurum*, and *Alona* sp. were the most abundant crustacean zooplankton species. In Serra Serrada Reservoir the rotifers *Asplanchna* sp., *Keratella cochlearis*, *Conochilus* sp., *Synchaeta* sp., and *Euchlanis* sp. were found. The main crustacean zooplankton species were *Macrocyclops albidus*, *Eucyclops serrulatus*, *Tropocyclops prasinus*, *Daphnia longispina*, *Ceriodaphnia pulchella*, *Bosmina longirostris*, and *Alona* sp.. Temporal changes in species abundance were recorded for both reservoirs. Correlations and multivariate analysis were carried out in order to assess the relationships between zooplankton species/genera and temporal variations observed in the physical and chemical variables mentioned above and in the reservoirs trophic state.

