



2015 Aquatic Sciences Meeting

Aquatic Sciences: Global And Regional Perspectives — North Meets South

22-27 February 2015 — Granada, Spain

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ABSTRACT

ECOLOGICAL DIFFERENTIATION AMONG MYSIDS STRUCTURES FOOD WEB AND SUPPORTS NURSERY FUNCTION OF GUADALQUIVIR ESTUARY.

Results for sixteen years of field data for a mysid community composed of *Mesopodopsis slabberi*, *Neomysis integer* and *Rhopalophthalmus tartessicus*, making up 46% of total estuary macrofauna biomass, are reported. Besides maximal densities in spring–summer, *M. slabberi* and *R. tartessicus* are strongly correlated with salinity(+) and turbidity(-) while *N. integer* is positively correlated with dam discharges. This point out a permanent residency of *N. integer* contrary to the formers which move into estuary in spring and migrate coastward for overwintering. Integration of population, functional traits, community and food web studies demonstrates high P/B rates (38.2, 10.3 and 10.7, respectively) agree with an intermediate $\delta^{15}\text{N}$ trophic position and prevalent presence in fish juveniles and shrimps stomachs; MixSIAR model shows mysids mean up to 86% on consumers diet. Fatty acid analysis relate *M. slabberi* with phytoplankton and bacteria, while carnivory biomarkers suggest the other two mysid species preying on it and copepods. This is an interesting energy turnover system in an estuary where Chla is roughly 1% of total organic matter. Seasonal results of trophic markers confirm a bidirectional trophic connectivity estuary-sea.

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DETAILS

Poster presentation

Session #:045

Date: 2/24/2015

Time: 18:30 - 20:00

Location: Poster/Exhibit Hall

Presentation is given by student: No

PosterID: 221