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mullet (*Liza aurata*) and red mullet (*Mullus barbatus*) muscle were determined. Their spatial distribution throughout the Mar Menor lagoon was characterized considering 9 sampling areas and two different sampling periods, spring and autumn in 2010 for golden grey mullet and only one (autumn) for red mullet. PAHs and organochlorinated pollutants were extracted using specific Soxhlet procedures. After cleanup and purification steps the final extracts were analyzed by HPLC for PAHs, and by GC-MS for PCBs and OCPs. The higher concentrations of all pollutants were found in fish sampled close to main urban and port areas of this lagoon and areas under the influence of El Albuñón watercourse. PAHs concentrations (sum of 14 congeners) in both species varied between 1 and 20.7 µg/kg w.w., being pyrene and phenanthrene the most abundant ones. p,p'DDE showed higher concentrations than PAHs in golden grey mullet (concentration range: 0.2-32.7 µg/kg w.w.), specially close to the main navigation channel between this lagoon and the Mediterranean Sea.

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Vertical distribution of PAHs in marine sediments (particulate fraction and interstitial water) from eight iberian mediterranean areas

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Polycyclic aromatic hydrocarbons (PAHs) have been determined in sediment cores from eight Iberian Mediterranean coastal areas (Barcelona, Tarragona, Ebro Delta, Valencia, Castellón, Cartagena, Almería y Málaga), considering both interstitial

water and solid fraction. Three sediment cores were taken in three different sampling sites per area by using a box corer. Cores were cut into 1-cm-thick sections between 0 and 18-cm depth, interstitial water was obtained by centrifugation and samples from every site were pooled. Fourteen polycyclic aromatic hydrocarbons (fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benz[a]anthracene, crysene, benzo[e]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, dibenzo[a,h]anthracene and indeno[1,2,3-c,d]pyrene) were determined in interstitial water by stir bar sorptive extraction coupled to GC/MS and solid fraction by Soxhlet extraction and HPLC with fluorescence detection. As result of PAHs hydrofobicity, their concentrations were several magnitude order higher in sediment (solid phase) than interstitial water. Total PAH concentration in sediment varied from 1 to 1321 µg·kg⁻¹ d.w and from 4.9 to 274 ng·L⁻¹ in interstitial water. Vertical PAHs distributions in sediments were homogeneous in some areas, however, sharp concentration decreases were observed at deeper layers from some sampling sites. However, their maximum concentrations in interstitial water were found mainly in upper or in deeper layers, depending on the specific characteristics of the area and sediments.

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