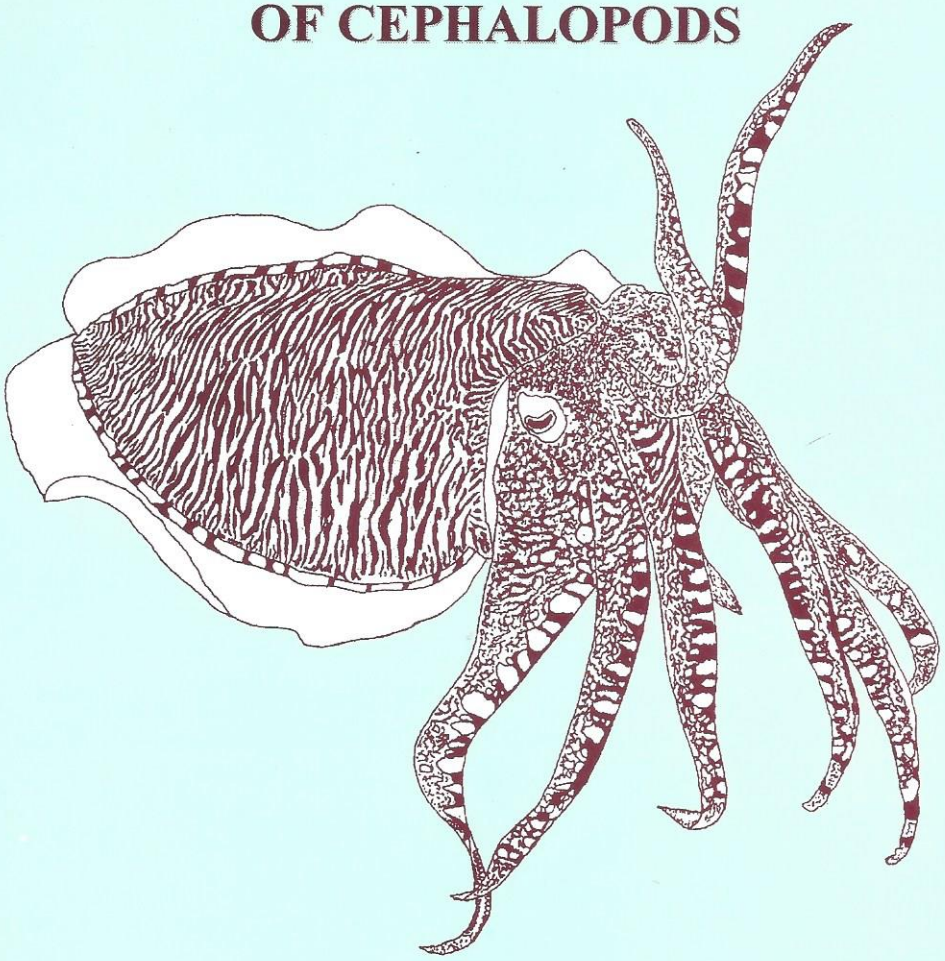
BIOLOGY, RECRUITMENT & CULTURE OF CEPHALOPODS



CIAC 2003

Programme and Abstracts

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BIOACCUMULATION OF LEAD IN *OCTOPUS VULGARIS* TISSUES ALONG THE YEAR IN CASCAIS (PORTUGAL)

Octopus vulgaris (Linnaeus, Cuvier 1797) is a benthonic species with a high economic value in Portugal. Lead (Pb) is a pollutant that we have concern, and have deleterious effects in animal's health. We study the influence of season and gender in distribution and in the concentration of lead in octopus. For these study octopuses (males and females) were collected, from animals landed by commercial fishing, during the four seasons of the year at the coastal area of Cascais. Lead was determined in several tissues. We verify that the tissue which bioaccumulated more is the digestive gland where the levels can reach 26.48 g/g dry weights. The branquial heart has high levels of lead, too. The quantitative of lead in tissues was not correlated with weight, length or mature state of the animals. The quantities in different tissues were not correlated between them. The results show that there are no differences between seasons in digestive gland and in branquial heart. Octopus shows different rates of Pb accumulation between genders, especially in the digestive gland. For these results we can conclude that Octopus is a good accumulator of lead and can be responsible for its transfer to top marine predators.

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