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CEPHALOPOD INTERNATIONAL ADVISORY COUNCIL **SESIMBRA PORTUGAL 2022**

BOOK OF ABSTRACTS

April 2–8 2022

Cephalopods in the Anthropocene:

Multiple challenges in a changing ocean

Cephalopod International Advisory Council Conference 2022

Cephalopods in the Anthropocene: Multiple Challenges in a Changing Ocean

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Impacts of anthropogenic activities on cephalopods

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Abstract

In past centuries, the impacts on cephalopods from humankind were negligible. The first documented small-scale exploitation of cephalopods occurred in the Mediterranean and Asia. Between 1950-2019, global cephalopod catches increased by about an order of magnitude, from 0.5 million tones to a peak of 4.85 million tons. The human impact on the oceans also increased substantially in this period. Human-induced climate change, habitat destruction, increased marine traffic, development of coastal infrastructure, pollution and growing fishing effort, may all have had negative impacts on cephalopod populations. But while the responses to anthropogenic impacts have been investigated for many ecosystem components, those for cephalopods are largely unknown. Cephalopods are sensitive to multiple environmental variables such as ocean temperature and dissolved oxygen concentrations, while geographic shifts in distribution in response to temperature changes are already documented. Their sensitivities to other human pressures are beginning to emerge, but most of these still need to be examined. How much habitat has been lost? How does noise affect cephalopods? What are the lethal thresholds for various chemical pollutants, or how may these act to inhibit reproduction? Does light pollution impact cephalopods? With such knowledge gaps, it is difficult to predict how cephalopods will respond to increasing human impacts. Our study aims to provide a review of what is known about anthropogenic impacts on cephalopods and their potential responses to these impacts. This information can be used to identify the research priorities for improving our understanding of human-induced impacts on cephalopods and the development of mitigation measures.

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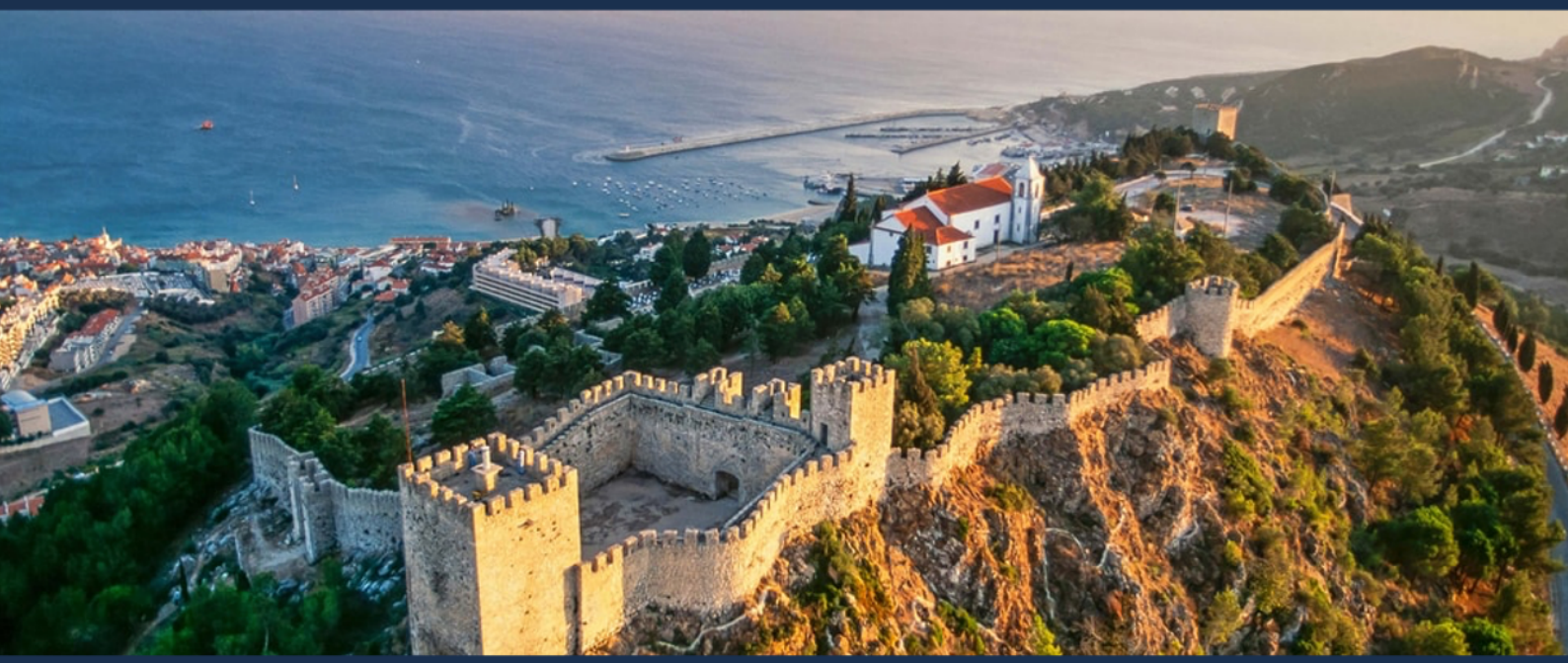

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