BOOK OF ABSTRACTS

Cephalopod International Advisory Council Conference 2015

平成２７年
国際頭足類諮問委員会函館会議

Recent Advances in Cephalopod Science

November 6-14, 2015
Hakodate, Japan

Table of contents

Oral presentations

November 10, 0930-0945 [3]

Hijacking, hitchhiking and burglary behaviors of pelagic octopuses

Rui **Rosa** [1*], Jesse T. Kelly [2], Mark Norman [3], Vanessa M. Lopes [1], José R. Paula [1], João Gonçalves [4] and João P. Barreiros [5]

[1] MARE – Marine and Environmental Sciences Centre, Laboratório Marítimo da Guia, Faculdade de Ciências da Universidade de Lisboa, Av. Nossa Senhora do Cabo, 939, 2750-374 Cascais, Portugal. E-mail: rrosa@fc.ul.pt
[2] Institute for Applied Ecology New Zealand, Auckland University of Technology, Private Bag 92006, 1142 Auckland, New Zealand
[3] Museum Victoria, GPO Box 666, Melbourne, Vic 3001, Australia
[4] MARE – Marine and Environmental Sciences, Department of Oceanography and Fisheries, University of Azores, 9901-862 Horta, Portugal
[5] CE3C – Centre for Ecology, Evolution and Environmental Changes / Azorean Biodiversity Group and Universidade dos Açores - Departamento de Ciências Agrárias, 9700-042 Angra do Heroísmo, Açores, Portugal

Pelagic octopuses are a highly specialized group of octopuses that have secondarily left the seafloor and evolved a holopelagic existence. One of the most striking adaptations amongst a suite of related pelagic octopus families (superfamily Argonautoidea) is their associations with gelatinous zooplankton (jellyfishes and salps). Here, we report footage of a never-before-seen interaction in nature (here coined as "hijacking" behavior), between a male octopus (*Haliphron atlanticus*) and a venomous jelly (*Pelagia noctiluca*) at the surface ocean. The peculiar orientation of this encounter and size of the intruder opposes the pelagic "hitchhiking" and the "burglary/weapon stealing" strategies observed to date in these pelagic octopuses. The "hijacking" behavior is a more complex interaction. While maneuvering the jelly (and possibly ingesting it), *H. atlanticus* appears to be using the jelly's marginal nematocystic tentacles to hunt. This constitutes the first evidence that all four octopod families of the Argonautoidea display opportunistic associations with gelatinous zooplankton, and establishes a new category of biotic associations.