

The Role of Squid in Pelagic Marine Ecosystems

November 14-17, 2006
Imin Conference Center
University of Hawaii, Honolulu



First Announcement

A joint workshop sponsored by GLOBEC-CLIOTOP Working Group 3 and the Pelagic Fisheries Research Program (PFRP)

You are cordially invited to the joint CLIOTOP/PFRP workshop on the role of pelagic cephalopods, especially large squid, in pelagic marine ecosystems. The workshop is to be held at the Imin Conference Center of the University of Hawaii at Manoa on Tuesday through Friday, November 14-17, 2006. The workshop will convene jointly with the annual PFRP Principal Investigators (PI) meeting. The first two days of the joint workshop will include presentations of PFRP-sponsored research, and presentations addressing a thematic focus on processes occurring at mid-trophic levels: dynamics of prey species, horizontal and vertical variability in prey abundance, novel tools for analysis of trophic dependencies, and downward propagation changes in trophic structure due to changes in predator abundance. Thursday and Friday, November 16-17, will be devoted entirely to cephalopods.

Cephalopods play an integral role in open-ocean marine ecosystems as dominant prey for many seabirds, marine mammals, and fishes, and as major predators of fishes and invertebrates. This fact was highlighted at the 2004 PFRP PI meeting. Two years later, and further motivated by apparent range expansions of *Dosidicus gigas* in the Pacific Ocean, there is renewed interest in a thorough examination of squid as key prey and predators (including cannibalism) in the pelagic ecosystem. The joint workshop will attempt to address that need.

Squid are short-lived ecological opportunists, and extremely rapid growth rates and population turnover rates allow squid to respond quickly to environmental and ecosystem change. Pelagic squid can rapidly respond to 'vacuums' created in the ecosystem owing to the removal of predators or competitors by fishing. The effects of rising water temperatures associated with climate change may initially appear predictable, to accelerate their fast life style. However, on closer examination, researchers have predicted an extremely complex response by inshore squid populations to climate change.

The purpose of the joint CLIOTOP/PFRP workshop is:

- To consider the role of squid in pelagic ecosystems that support tunas and other upper-level predators;
- To consider how climate change might impact squid populations and the ecosystem;
- To consider the recent range expansions of *Dosidicus gigas* in the Pacific Ocean, especially in terms of its effects on the ecosystems;
- To identify research needs for large pelagic squid to meet the goals of GLOBEC-CLIOTOP (see below). Potential research proposals will be identified.

Please contact Robert Olson rolson@iattc.org or Jock Young Jock.Young@csiro.au if you are interested in making a presentation about the role of squid in the ecosystem or in attending the joint workshop. Please contact John Sibert, PFRP, Sibert@hawaii.edu for more information on the PFRP PI meeting. Please contact Ms Dodie Lau lau@hawaii.edu for questions regarding travel and accommodations.

CLIOTOP

In 2004, the international research program GLOBEC (Global Ocean Ecosystem Dynamics) (<http://www.globec.org/>) implemented a regional program called CLIOTOP (Climate Impacts on Oceanic Top Predators). CLIOTOP aims to identify, characterize, and model the key processes involved in the dynamics of oceanic pelagic ecosystems in a context of both climate variability and change, and intensive fishing of top predators. The goal is to improve knowledge and to develop a reliable predictive capacity for single species and ecosystem dynamics at short-, medium-, and long-term scales. CLIOTOP Working Group 3 focuses on trophic pathways in open-ocean ecosystems.

PFRP

The Pelagic Fisheries Research Program (PFRP) was established in 1992 after the Magnuson Fishery Conservation and Management Act (1976) was amended to include "highly migratory fish." This amendment greatly increased the responsibilities of the Western Pacific Regional Fishery Management Council, which is mandated to manage fisheries in the Western Pacific region. The PFRP was created to provide scientific information on pelagic fisheries to the Council for use in development of fisheries management policies. For further information on PFRP visit <http://www.soest.hawaii.edu/PFRP/pfrp1.html>.