### Proposal for a workshop at the International Symposium on "Climate Change Effects on Fish and Fisheries: Forecasting impacts, Assessing Ecosystem Responses, and Evaluating Management Strategies" April 2010, Sendai, Japan

### 1. Title

Examining the linkages between physics and fish: How do zooplankton and krill data sets improve our understanding of the impacts of climate change on fisheries?

### 2. Convenors

William Peterson (Hatfield Marine Science Center, NOAA, USA) and others TBA

# **3. Description and Objectives**

This workshop will provide an opportunity for those keenly interested in "how data on zooplankton and krill can be used to better understand and forecast the impacts of climate change on fisheries" to discuss the topic in an informal workshop atmosphere. We seek contributions which demonstrate explicitly how information on zooplankton and krill contribute to a better understanding of the linkages between physics and fish. This would be beneficial because it would provide the opportunity to discuss the presentations at length something that is not possible during regular meeting sessions due to time constraints. Furthermore, the workshop will likely produce novel ideas that will add to the open discussions during the Symposium itself. This 1-day workshop will include no more than 15 contributed papers. The main participants in the workshop will be those who contribute to sessions P1, A2, B1, B2 and D2.

# 4. Anticipated Outcomes/Products

I anticipate that, at a minimum, we will produce a white paper that summarizes ongoing research activities as well as publications which link climate change to fisheries through changes in the food web in a variety of ecosystems – coastal, oceanic, upwelling, Arctic, and Antarctic. Thus this will be a foundation document that shows where we are now and where we want to be in the future. It would also produce a set of recommendations for how we might move forward in our quest to better understand the mechanisms that link physics and fish through food chain interactions. It is possible that such a white paper could be found acceptable for publication, after peer review, in the "Horizons" section of the *Journal of Plankton Research*.