## Biological and Ecology

### Alaska Region

 Although this applies to all regions, for the arctic specifically there is so much environmental change currently seen and expected we feel that there should be an explicit focus in each study to identify how this data could be included in monitoring efforts, or be designed to capture change.

 Climate change and temporal variability should be considered as a changing variable that needs to be considered when assessing Field Evaluation of an Unmanned Aircraft System for Studying Cetacean Distribution, Density and Habitat Use in the Arctic

- We support the intent of comparison of performance between platforms (human vs UAS "eyes") and this will be applicable to a large range of upcoming studies.
- If not a direct collaborator, National Marine Mammal Laboratory/NOAA needs to be involved in the coordination of this project given their previous work in the area
- Suggest a potential linkage with the high definition video project with this if possible with the equipment available

## Watersipora II: Biological oceanographic conductivity of southern California reefs and manmade structures

- Well designed with the monthly collection of settlement plates to gain information on invasive and native species
- Study would benefit from addressing a set of a priori questions with the modeling – i.e. are the dispersal patterns different under different oceanographic conditions?, are there sources and sinks of larvae?, are there seasonal patterns?
- Suggested Use ROMS model over a 10 year period
- Suggestion: consider using drifters to provide real-time circulation

## Cetacean Distribution, Abundance, and Ecology in Cook Inlet

- We agree that there is a need for information
- planning should be built upon lessons learned from previous acoustic buoy deployments developed in this challenging system (current, debris etc.).
- Although beluga whale distribution is typically northward of the extent of this study area, every effort should be made to include assessment of status of this population in this study
- Positive leverage with other organizations including CIRCAC, NOAA and USFWS

# Subtidal and Intertidal Habitats and Invertebrate Biota in Lower Cook Inlet

- We rank this high with low cost to supplement a longstanding study (i.e. Gulf Watch) that incorporates traditional knowledge and thorough inventory of shallow subtidal and intertidal habitats
- Builds upon ShoreZone mapping program and hydrocarbon work by previous surveys conducted by CIRCAC and NOAA

## Pacific OCS Region

## Consequences of Ocean Energy Projects to Productivity and Trophic Structure in Marine and Coastal Habitats

- In principle the study of changes in transport of secondary productivity due to energy development is supported, but this will take some more refined development of vulnerable ecosystems
- Using platforms as a surrogate for future wave energy installations may not be applicable given the very different coastline processes however, buildup of the shell mounds below platforms could be a good crossover study between regions (between Oregon and California, and potentially the Atlantic)
- What are the hypothesized impacts?
- Suggest that the Renewables subcommittee work with Pacific staff to help identify vulnerable environments to prioritize and to refine the study design, before deciding to include stable isotope methods, etc.

### **Gulf of Mexico**

#### Explosive Removal Fisheries Impact Assessment

- This project needs to be done, high public interest project as well.
- Cost analysis of removal versus non-removal and explosive vs non-removal – there should be a focus on benthic disturbance and sediment plume.
- Suggested to consider the megafaunal invertebrates, and whether a deterent study could be included.

## Atlantic OCS Region

#### Tracking Movements of Endangered Roseate Terns and Threatened Piping Plovers in the NW Atlantic

- We feel this project has developed to a stage where it can be transferred to more sensitive species
- This has been considered a priority for a number of years
- Extend the receiving network into the wind energy area and further along the Atlantic coast
- Figure out how to get flight heights
- Consider the addition of biological sample collection( ie blood plasma samples for stable isotopic analysis, genetics etc.)

## Endangered Atlantic Sturgeon Habitat Use in the Mid-Atlantic Wind Energy Areas

- We felt this is an important study
- Suggested that deployment of higher capability tags (higher cost, lower battery duration) may provide more useful information than maximizing deployment length for limited location data

# Understanding Whale Presence in the Virginia Offshore Wind Energy Area

- Seems like a good use of resources to enhance the capability of the existing moorings and pilot study data
- Will significantly improve our knowledge of whale distribution, abundance and use in the proposed WEA

### **National**

## A Demonstration of the Marine Biodiversity Obervation Network (BON) for Ecosystem Monitoring

 General support for the concept but not enough information to provide feedback (proposals in review)

#### Comments on Other Profiles