



# BOEM-Oregon Science Exchange

## 2015-2016 Webinar Schedule

### **July 22, 2015** **Seabirds and Marine Mammals off the Pacific Northwest**

Information about the distribution, abundance, and seasonal usage of offshore waters by seabirds and marine mammals was collected in this large joint effort by the U.S. Geological Survey (USGS), BOEM, and U.S. Fish and Wildlife Service. BOEM Avian Biologist and avid bird photographer **David Pereksta** will present colorful results from these three-dimensional aerial surveys. Unusual observations have led to significant changes in our understanding of the patterns of these animals, which will be important in predicting potential effects from marine renewable energy projects.

### **September 30, 2015** **Seafloor Mapping Adjacent to Renewable Energy Areas**

The U.S. Geological Survey (USGS) collected multi-beam and video data of the seafloor in order to determine habitat characteristics in the area surrounding potential renewable energy leases on the Oregon Outer Continental Shelf. This habitat classification scheme is the same as that used by USGS to create habitat maps for California's Marine Protected Areas (in state waters). BOEM Marine Ecologist **Donna Schroeder**, who has provided the benthic expertise for many USGS surveys, will describe the results from this study.

### **December 2, 2015** **Renewable Energy *in situ* Power Cable Observations**

BOEM Pacific Region Environmental Sciences Chief **Dr. Ann Bull** will present findings from studies by BOEM and the University of California, Santa Barbara in which researchers are measuring the strength and variability of electromagnetic fields (EMFs) along subsea power-transmission cables in the Santa Barbara Channel and Puget Sound. She will compare the fish communities in cable versus natural habitats and examine the potential effectiveness of cable burial as a mitigation measure to decrease EMFs. In addition, she will provide preliminary results from ocean experiments where rock and dungeness crabs are given a choice to decide if they will cross a power cable in response to a baited commercial fishing trap.

### **January 20, 2016** **Survey of Benthic Communities near Potential Renewable Energy Sites Offshore the Pacific Northwest**

BOEM Benthic Biologist **Lisa Gilbane** will present information about the bottom of the sea and the distribution of benthic (bottom-dwelling) invertebrates. She will discuss this fascinating study by BOEM and Oregon State University, in which researchers videotaped, photographed, and sampled seafloor communities in several offshore locations to understand the relationship between habitat characteristics and inhabitants. The study will allow researchers to predict where specialized communities are likely to exist.

### **March 16, 2016 Renewable Energy Visual Evaluations: Visual Impact Evaluation System for Offshore Renewable Energy (VIESORE)**

BOEM Marine Archaeologist **David Ball** will discuss a state-of-the-art study by BOEM, the University of Arkansas, and Argonne National Laboratory which has developed a GIS-based landscape visualization tool to predict potential viewshed effects from offshore renewable energy facilities. Visualizations will include wind energy structures, lighting, and meteorological conditions.

### **May 18, 2016 Assessing the Vulnerability of Marine Birds to Renewable Energy Infrastructure in the California Current**

In addition to introducing you to a photographic world of Pacific seabirds, BOEM Avian Biologist **David Pereksta** will present results from a study by BOEM and the U.S. Geological Survey that is estimating the vulnerability of Pacific seabird species to potential effects from offshore renewable energy activities, such as collisions with offshore devices and habitat displacement. Existing and newly analyzed at-sea behavior information (including flight height, flight characteristics, and avian habits) is being used to determine species-specific vulnerability to offshore renewable energy devices.

### **July 20, 2016 The Pacific Regional Ocean Uses Atlas – Information for Oregon**

Space-use conflicts are a potential issue for offshore energy projects. BOEM Leasing Specialist **Sara Gultinan** will present results from a study about human uses of the ocean. This study by BOEM and the National Oceanic and Atmospheric Administration documents patterns of existing and emerging ocean uses off Washington, Oregon, and Hawaii. A mapping tool noting areas of potential space use conflict and/or compatibility in relation to proposed offshore renewable energy facilities/infrastructure will help analysts minimize conflicts.

### **September 21, 2016 Characterizing Tribal Cultural Landscapes**

BOEM Marine Archaeologist **David Ball** will describe three case studies from Native American communities in California, Oregon, and Washington that have been used to develop a methodology and process for working with Native American communities to identify areas of tribal significance that need to be considered in the planning process for offshore renewable energy. This BOEM-funded study was developed through a partnership with the National Oceanic and Atmospheric Administration's Office of National Marine Sanctuaries and Marine Heritage Program, Tribal Historic Preservation Offices of the Makah Tribe, Confederated Tribes of Grand Ronde and Yurok Tribe.