OSM18_DBO Session, IARPC MECT, and Polar 2018 AnT-ERA-DBO

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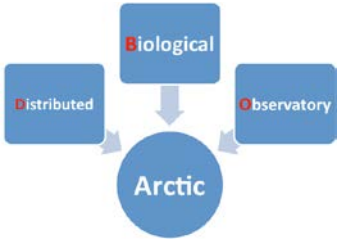

AGU/ASLO/TOS Ocean Science Meeting 2018_DBO Oral and Poster Session
Co-Chairs: Jackie Grebmeier (CBL/UMCES) and Sue Moore (NOAA)

Monday, February 12, 2018 , 10:30 AM - 12:30 PM; Oregon Convention Center- B110-B112

The Distributed Biological Observatory:
An Expanding Change Detection Array in the Marine Arctic

Arctic marginal seas are undergoing historically unprecedented reductions in sea ice volume and extent, concomitant with increasing ocean temperatures. It is uncertain how the marine ecosystem is responding to these sea ice thinning trends and alterations in the timing of seasonal sea ice retreat and formation. The scope of these possible changes include primary production, planktonic and benthic biomass, migration patterns of upper trophic level consumers, and overall biogeochemical cycling. In order to systematically track biological responses to sea ice loss and associated environmental changes, an international consortium of scientists have developed the “Distributed Biological Observatory” (DBO), which integrates biological measurements at multiple trophic levels with physical oceanographic sampling from ships, satellites and moorings. The DBO initially focused on five biological “hotspot” regions distributed along a latitudinal gradient extending from the northern Bering Sea through the Chukchi Sea; subsequently, three DBO regions were added in the Beaufort Sea. An Atlantic-DBO, comprised of five transect lines, is being developed in the northern Barents Sea and Fram Strait, and DBO lines have been proposed for Baffin Bay. This session provides a forum to present recent multi-disciplinary scientific findings associated with physical forcing and ecosystem response detected through the DBO change detection array.

OSM 2018 IARPC MECT Town Hall

Town Hall Title: Activities of the Marine Ecosystems Collaboration Team within the US Interagency Arctic Research Policy Committee
Date and Time: Wednesday, February 14, 2018: 12:45 PM - 1:45 PM
Location: Oregon Convention Center, D139-D140

The Marine Ecosystems Collaboration Team (MECT) is one of nine teams within a unique U.S. Federal/Non-federal collaboration framework created within the Interagency Arctic Research Policy Committee (IARPC). The MECT is a new team created as part of U.S. Arctic Research Plan 2017-2021, combining elements of the previous U.S Arctic Research Plan 2013-2017's Distributed Biological Observatory Collaboration Team and Chukchi & Beaufort Seas Collaboration Team. This Town Hall session will provide a general description of IARPC's unique Federal/non-federal collaboration model and then highlight the particular workings and achievements of the MECT to address its 13 research objectives and associated performance elements. Case studies of ongoing interagency collaborative research projects will be presented. We will also provide recent organizational updates as well as an outlook of potential leveraging opportunities within ongoing and planned research programs through a planned community input link via the MECT web portal. The co-chairs of the MECT are Guillermo Auad (Bureau of Ocean Energy Management), Danielle Dickson (North Pacific Research Board), and Jackie Grebmeier (University of Maryland Center for Environmental Science). Further information on the MECT is available at: https://www.iarpccollaborations.org/teams/Marine-Ecosystems.

Antarctic and Arctic Ecosystems and their Functioning, Davos, Switzerland (open to anyone)

Sunday, **17 June 2018, 1pm – 5pm**, Room C Aspen

contacts: **Julian Gutt**

other: Lee Cooper, Monika Kedra, Cinzia Verde, Ian Hogg

The SCAR Antarctic Thresholds - Ecosystem Resilience and Adaptation (AnT-ERA) research programme has been instrumental in developing a better understanding of biological responses to environmental change and the functioning of Antarctic ecosystems. Somewhat in parallel, the **Distributed Biological Observatory** (DBO) in the Arctic has been a bottom-up scientist initiative to evaluate ecosystem response to environmental change that has been supported by the IASC **Marine Working Group** and the **Pacific Arctic Group** in addition to national science agencies in six countries with Arctic research programmes in the Pacific Arctic. This meeting will bring together the science communities working at both poles who will jointly discuss topical scientific issues in Antarctic and Arctic biological processes. The major focus will be amphipolar comparisons and contrasts related to the response of organisms and ecosystems to climate change, including ocean acidification at all levels of biological organization. Core questions/issues that are anticipated for this session include increases or decreases in biodiversity and changes in ecosystem functioning (e.g. net primary production and biological CO2 uptake). Identification of challenges for future investigations, knowledge gaps, and dissemination of results are additional goals of this session.