

# OSM2020 Marine Ecosystem Session, Town Hall, and ASSW2020 DBO and SAS discussions

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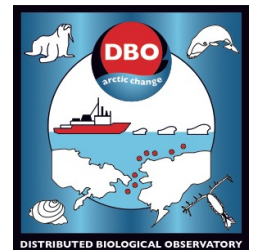
University of Maryland Center for Environmental Science, Solomons, MD, USA

5<sup>th</sup> DBO Data Workshop

January 23, 2020

NOAA/PMEL

Seattle, Washington, USA



# Ocean Science Meeting, San Diego, CA Feb 2020-Oral and Poster Sessions

**HE41A:** Ecosystem structure and processes in a changing Arctic

Primary Chair: Seth L Danielson, University of Alaska Fairbanks, College of Fisheries and Ocean Sciences, Fairbanks, AK, United States

Co-chairs: Lee Cooper, Jacqueline M. Grebmeier, and Katrin Iken

**Feb 20, 2020 Oral and Posters**

**Session Description:** The rate of atmospheric warming in the Arctic is outpacing that of other regions, and is associated with sea ice loss, warming ocean temperatures, changes in the hydrological cycle, and impacted ecosystems. Temperature-growth relations, nutrient cycling dynamics, altered seasonality, changing freshwater balances, expanded and contracted species range extensions, and new trophic pathways may each affect biodiversity, the population status of key species, and relations between humans and marine resources. As environmental change continues, can we anticipate how future Arctic ecosystems will compare to those of the past and present? Will the effects of a changing climate be the same across various Arctic regions? Organizers welcome presentations from all regions of the Arctic examining the drivers, rates, processes, and mechanistic controls that impart structure on any aspect of the high-latitude marine ecosystem.

# Ocean Science Meeting, San Diego, CA Feb 2020-Town Hall

**Session TH43F: Scientific response to an ever faster changing Arctic: Making the most of our collective work in the Arctic, Thurs. Feb 20, 2020; 1245-1345**

**Molly McCammon**, Alaska Ocean Observing System, Anchorage, AK, United States, **Seth L Danielson**, Univ Alaska, Fairbanks, AK, United States, **Jacqueline M. Grebmeier**, University of Maryland Center for Environmental Science, Chesapeake Biological Laboratory, Solomons, MD, United States, **Amy Holman**, NOAA, Boulder, CO, United States and **Cheryl Rosa**, United States Arctic Research Commission, Anchorage, AK, United States

This one-hour town hall will be a follow-on to the Oral Session entitled “Ecosystem structure and processes in a Changing Arctic.” This will provide an opportunity for the science community to informally discuss linkages across results from past and recent fieldwork and studies, and what a “new normal” for the Arctic might look like in light of the rapid environmental changes being observed. We would also like to see proposed actions developed for moving forward and ideas for emerging research and observing needs. With the U.S. Arctic experiencing such unprecedented, rapid change, what information do northern communities, resource managers, industry representatives, first responders, policy makers and other decision makers need, and how can we best organize ourselves to deliver the data and information products required?

# Arctic Science Summit Week, Akureyri, Iceland-March 2020

## IASC Marine Working Group

- Dates: **28 March; 8:30-10:00 & 13:30-17:30** (Closed for final 90 minutes)
- Location: N102
- Contact: Allen Pope; allen.pope@iasc.info
- Description: The scientific core elements of IASC are its five Working Groups (WGs): Atmosphere, Cryosphere, Marine, Social & Human, and Terrestrial. The main function of the WGs is to encourage and support science-led international programs by offering opportunities for planning and coordination, and by facilitating communication and access to facilities. **Presentation 5<sup>th</sup> DBO data workshop-Grebmeier**

## Pacific Arctic Group

- Dates: **28 March; 8:30-17:30**
- Location: M203
- Contact: Jianfeng He; hejianfeng@pric.org.cn / lina@pric.org.cn
- Description: The Pacific Arctic Group (PAG) is a group of institutes and individuals having a Pacific perspective on Arctic science. Organized under the International Arctic Science Committee (IASC), the PAG has as its mission to serve as a Pacific Arctic regional partnership to plan, coordinate, and collaborate on science activities of mutual interest. The four PAG principle science themes are climate, contaminants, human dimensions and structure and function of Arctic ecosystems.

**Presentations on DBO and SAS activities-US and international participants**

## **An Update on the Planned Activities for the 2020-2021 International Synoptic Arctic Survey, March 29, 2020: 8:30-10:00**

The Central Arctic Ocean remains profoundly understudied, particularly carbon cycling, ecosystem alteration, and associated changes in atmosphere, ice and ocean physics that influence those biological and biogeochemical systems. The region is expected to experience marked changes over the next decades, driven by ongoing climate warming, yet our understanding of key process is limited for this area. The international Synoptic Arctic Survey (SAS) seeks to quantify the present states of the physical, biological, and biogeochemical systems. Multiple countries have both confirmed and pending cruises as part of the 2020/2021 SAS networked activities. Key goals of the SAS are to establish the present state of the Arctic system, to document temporal changes where possible through comparison with historical data, and to quantify linkages between the adjacent shelves, slopes, and deep basins, objectives that are shared with the broader Pan-Arctic effort of the composite SAS. The SAS consists of regional shelf-to-basin ship-based surveys in 2020 and 2021 as a means to obtain Pan-Arctic understanding of essential ocean variables (EOVs) on a quasi-synoptic, spatially distributed basis in which no single nation bears the full burden of collecting the requisite data. This SAS session will outline the benchmark and important legacy for SAS activities to future, quasi-decadal assessments of rapid and evolving Arctic Ocean system change.

# Arctic Science Summit Week, Akuyeri, Iceland-March 2020

## **IASC Joint Working Group Meeting**

- Dates: 28 March; 10:30-12:30
- Location: N101
- Contact: Allen Pope; [allen.pope@iasc.info](mailto:allen.pope@iasc.info)
- Description: This joint session of the IASC Working Groups will report on cross-cutting activities from the previous year and present proposals for cross-cutting activities in the coming year.

## **Development of an Arctic Research Plan 2022-2027**

- Dates: 30 March; 8:30-10:00
- Location: L101
- Contact: Meredith LaValey; [mlavalley@arcus.org](mailto:mlavalley@arcus.org)
- Description: The preparation of Arctic Research Plan 2022-2027 will begin soon, with a view to release in late 2021. The Interagency Arctic Research Policy Committee is seeking a wide variety of perspectives and input on what is needed from the new Arctic Research Plan. This side meeting would serve to gather input from the international community on what research should be included and how the plan itself might be better structured to fulfill these research needs.