

# Distributed Biological Observatory (DBO)

*Linking Physics & Biology in the Arctic*

## 4<sup>th</sup> DBO Data Workshop

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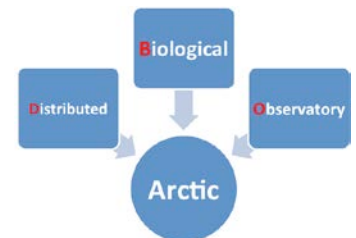
4<sup>th</sup> DBO Data Workshop

November 9, 2017

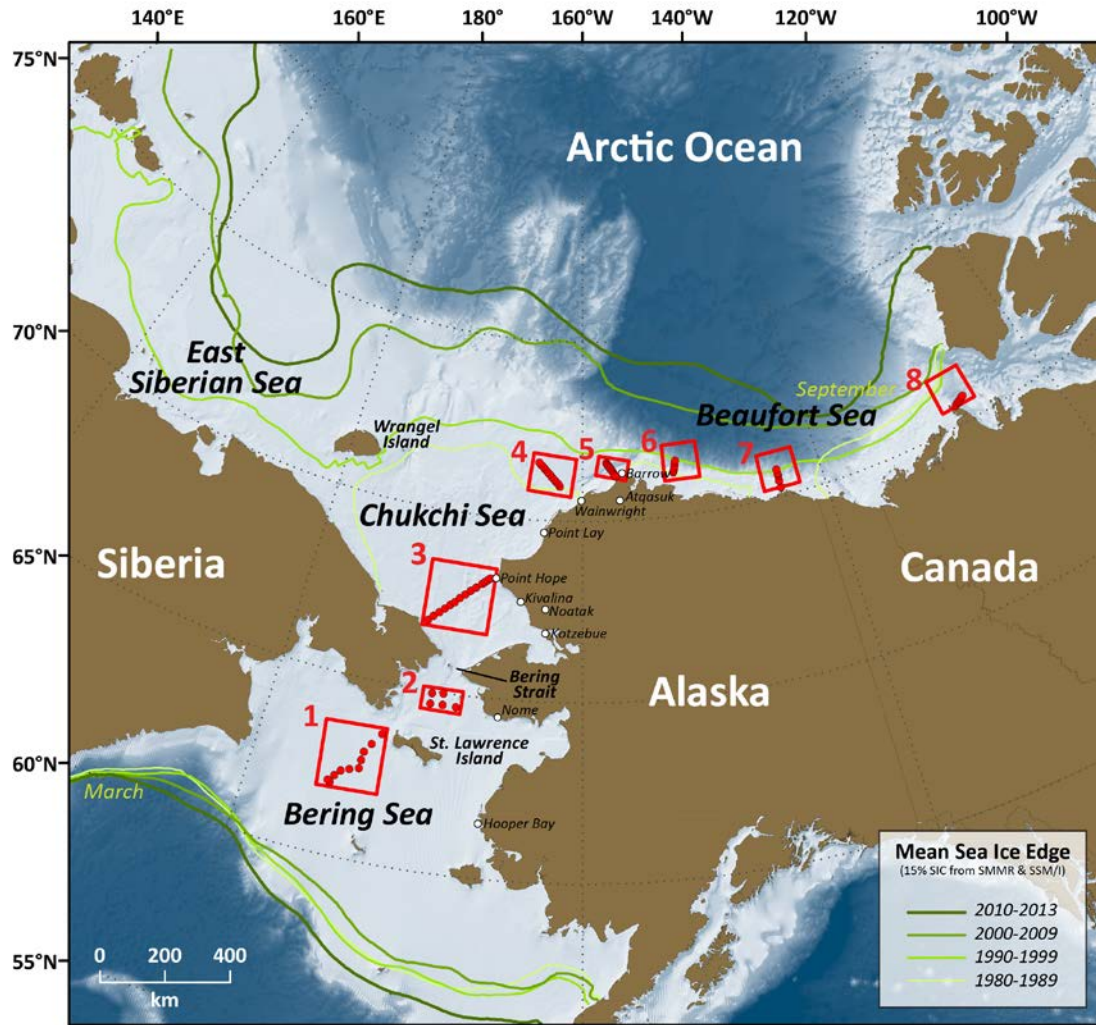
Seattle, Washington, USA



<http://www.arctic.noaa.gov/dbo/>



# Linking Physics to Biology: the Distributed Biological Observatory (DBO)



[modified by Karen Frey from Grebmeier et al. 2010, EOS 91]

- DBO sites (red boxes) are regional **“hotspot” transect lines and stations** located along a latitudinal gradient (DBO1-5) and longitudinally (DBO6-8)
- DBO sites exhibit high productivity, biodiversity, and/or overall rates of change
- DBO sites serve as a **change detection array** for consistent monitoring of biophysical responses
- Sites occupied by **national and international entities** with shared data plan



## **AGENDA**

### **4<sup>th</sup> DBO WORKSHOP**

**November 8-9, 2017**

PMEL/NOAA, Bldg. 3, Oceanographer Room

7600 Sand Point Way NE, Seattle, Washington, USA

WIRELESS username = PAG/DBO; password = \$cience

### **Workshop Overview - We have 3 objectives for this workshop:**

1. Present results from the 2010-2017 DBO field programs, including summaries from DBO DSR special issue papers
2. Develop a conceptual model for the Pacific DBO and discuss ongoing or developing modeling efforts
3. Discuss data parameter file and data archiving

## November 8, 2017 – Wednesday (0800 – van transport from Silver Cloud Hotel to PMEL)

0900 Welcome and Logistics: **Sue Moore**

0910 Meeting Objectives and Overview of the DBO: **Jackie Grebmeier**

0930 Highlights of DBO 2010-2017 data time series (~20 min each subsection, so just a 2-5 slides from each speaker (~5 min); **BOLD is discussion Lead**)

- Remote Sensing: sea Ice, SST, chl-a: **Jackie Grebmeier**; speaker: Kristin Shake (for Karen Frey, including NASA DBO website and Arctic Report Card)
- Physical oceanography: **Jackie Grebmeier**; speakers: Leah Trafford McRaven (for Robert Pickart), Seth Danielson, Kyoung-Ho Cho, Phyllis Stabeno
- Mooring data results: **Phyllis Stabeno**; speakers: Seth Danielson, Hiroto Abe, Shigeto Nishino, Phyllis Stabeno, Rebecca Woodgate
- Biochemical oceanography and export production: **Jackie Grebmeier**; speakers: Jackie Grebmeier (for Lee Cooper), Karina Giesbrecht, Melishia Santiago, Jinyoung Jung, Laura Juranek, Diana Varela

10:30 Coffee Break

11:00 Continue Highlight Presentations

- Biological oceanography
  - Lower trophics: **Jackie Grebmeier**; speakers: Carin Ashjian, Lisa Eisner, John Nelson, Hyoung Sul La, Morgan Busby, Jackie Grebmeier, Monika Kedra, Christina Goethel, Caitlin Meadows
  - Upper trophics: **Catherine Berchok**; speakers: Catherine Berchok, Kathy Kuletz
- Modeling discussion: **Sue Moore**; speakers: Carin Ashjian, Mike Steele

1220 **Group Picture**, then Lunch (NOAA Cafeteria, no host)

# Day 1 Agenda (cont).

- 1330 Continue overview presentations; also highlight from papers for DBO Special Issue if not included in discussions above; update on Quintillion cable locations (**Heather Crowley**)
- 1500 Coffee break
- 1530 Discussion of DBO4 transect line location (**Grebmeier**), with group input
- 1600 Status of efforts for pan-Arctic DBO (Atlantic, Beaufort Sea, Baffin Bay)
- Atlantic-DBO update (**Marie Porter, Scottish Association For Marine Science**)
  - Beaufort Sea (**Heather Crowley, BOEM perspective**)
  - Eastern Beaufort DBO8 and Baffin Bay status report (**Grebmeier**)
- 1630 Discussion & wrap up
- 1700 End day and van transport to hotel - **Group Dinner (no host, 7 pm, Piatti Restaurant, University Village; ph. 206-524-9088)**

**November 9, 2017 – Thursday (0800-van transport from Silver Cloud Hotel to PMEL)**

- 0900 Overview of Day 1 and plan for Day 2 (**Jackie Grebmeier**)
- 0915 Modeling efforts within the DBO and development of DBO conceptual model (**Sue Moore**)
- Arctic Marine Pulses conceptual model (**Sue Moore**)
  - Other Ideas for DBO conceptual model and/or part of DBO effort?
- 1030 Coffee break
- 1100 Data access and management: National and International Data Access (**Jackie Grebmeier**); speakers: Leah Trafford McRaven (Physical oceanography for Bob Pickart), DBO data parameters file (Jackie Grebmeier), NSF Arctic Data Center (Jackie Grebmeier), Canada (C3O, JAMSTEC, KOPRI, PRIC), others?
- 1220 Lunch (NOAA Cafeteria, no host)
- 1330 Sustained DBO sampling: National & International/Pan-Arctic colleagues
- DBO within the US-IARPC Marine Ecosystem Collaborative Team (**Jackie Grebmeier**),
  - DBO and the IASC Marine Working Group Antarctic-Arctic activities (**Monika Kedra**)
  - Pacific Arctic Regional Marine Assessment (PARMA); Moore and Grebmeier, 2017 *Arctic* paper (**Sue Moore**)
- 1500 Coffee break
- 1530 Update on DBO DSR special issue, 2018 OSM DBO session and MECT town hall meeting, Polar 2018 side meeting: AnT-ERA and DBO (June 17, 2017 in Davos, Switzerland) (**Jackie Grebmeier**)
- 1600 Action Items & Timeline: DBO Special Issue, future plans (**Jackie Grebmeier**)
- 1700 End day and van transport to hotel