

Second announcement

**The Southern Ocean in the Weddell Sea and off Dronning Maud Land:
unique oceanographic conditions shape circumpolar and global processes.**

**A multidisciplinary workshop of the
Weddell Sea - Dronning Maud Land (WS-DML) regional working group
of the Southern Ocean Observing System (SOOS)**

Hanse-Wissenschaftskolleg (HWK), Delmenhorst, Germany, 28 – 30 April 2020

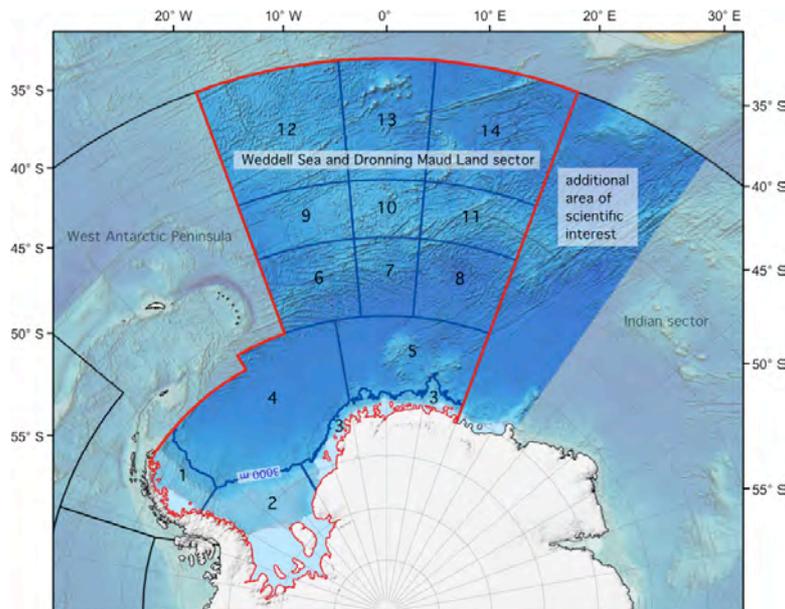
Organizers: J. Gutt, M. Janout, M. Hoppema (AWI), S. Moreau and L. de Steur (NPI)



Background

The Weddell Sea including the ocean off Dronning Maud Land is regionally representative for the high-latitude Southern Ocean due to its pronounced seasonality, circum-polar currents, deep-water formation and multi-year sea-ice cover. In addition, the Weddell Gyre connects water masses at the northern margin of the Southern Ocean (SO) in the Antarctic Circumpolar Current (ACC) with those shaped by the large ice shelves and sea-ice formation in the southern Weddell Sea. This hydrodynamic regime affects a range of physical, geochemical and biological processes.

A smaller proportion of the western Weddell Sea is already experiencing climate-change and related consequences, including the acceleration of mass loss from ice shelves, enhanced ocean warming and freshening, rising air temperatures, and changes in wind patterns. In the eastern part, however, the environment is still relatively stable but it is predicted to experience significant warming, sea-ice melt and ice-shelf loss until the end of the century. The recent re-emergence of the Weddell Polynya in this region, for not entirely understood reasons and with potentially significant impact on regional water masses underscores the importance of observing and understanding this region.



The aims of the workshop are to:

- (1) Provide an overview and update of **scientific findings**, which underline the WS-DML as an important area for multi-disciplinary and other studies (approx. 30 presentations and posters). It is also planned to publish a special volume on such results (see below).
- (2) Inform the SOOS WS-DML community about the **progress of activities** in the area of interest.
- (3) Develop **ideas, actions and products for the future** including multi-national initiatives in short presentations and in a plenary discussion following our "additional plans and requirements" assembled during our kick-off workshop in Tromsø, in January 2019.

We would like to bring together scientists, who recognize the role of research in the Weddell Sea / Dronning Maud Land in the circumpolar system due to its physical/biological uniqueness and function. Our foci are important single-disciplinary results embedded in a larger context and multidisciplinary studies. **Experts are welcome to participate and contribute to the developments of this SOOS regional working group.** We encourage especially **Early Career Scientists** and experts from countries with small and emerging Antarctic research programs to attend the workshop. If we have to select participants up to the capacity limit of 50 the variety of countries/ institutes/disciplines and the gender-balance play a role; otherwise we apply the first-come-first-served principle. Unfortunately, SOOS can generally not provide individual travel funds. Please send your pre-registration and abstract (≤1000 characters) **until 30 October** to julian.gutt@awi.de and indicate whether you plan to publish your results in a **special volume** preferably in one of the journals *Elementa* or *Copernicus – Ocean Science/Biogeosciences*. Manuscripts are to be prepared until the meeting to be officially submitted soon after the workshop. The official registration with more information (hotel, conference fee (?), local transportation, venue) will be managed after 30 October by HWK.

Early Career Scientists (up to 5 years post-Ph.D., for definition see www.scor-int.org/SCOR_Travel_Support.htm) can apply for travel funds **until 30 October 2019**. Please provide (1) name and affiliation, (2) 2-3 sentences of motivation (why to participate), (3) title of the oral presentation, (4) preliminary title of the manuscript as a contribution to the special volume, (5) required funds (flight), contact: julian.gutt@awi.de.

Preliminary schedule of the multidisciplinary workshop of the WS-DML regional working group of the Southern Ocean Observing System (SOOS):

"The Southern Ocean in the Weddell Sea and off Dronning Maud Land: unique oceanographic conditions shape circumpolar and global processes"

28 April		
12:30 – 13:30	Buffet	
13:00 – 13:30	Registration	
13:30 – 14:30	Welcome, aims of the workshop, achievements, general information	J. Gutt et al.
14:30 – 15:20	Objectives and the future of the working group	M. Janout
15:20 – 16:00	Coffee and "career launch" for ECS	ECS & mentors
16:00 – 18:00	Session I: geochemistry, presentations	M. Hoppema
29 April		
09:00 – 10:30	Session II: physical oceanography (a), presentations	T. Hattermann
10:30 – 11:00	Coffee	
11:00 – 12:30	Session II: physical oceanography (b), presentations	M. Janout
12:30 – 14:00	Lunch	
14:00 – 15:30	Session III: biology (a), presentations	J. Gutt
15:30 – 16:30	Coffee and poster session (optional)	
16:30 – 18:00	Session III: biology (a), presentations continued	S. Fawcett
19:00 – open end	Workshop dinner	
30 April		
09:00 – 10:30	Session III: biology (b), presentations	S. Moreau
10:30 – 11:00	Coffee	
11:00 – 12:30	Data hack, scientific or stakeholder-orientated products, incl. special issue, data analyses, E&O material (presentations and plenary discussion)	J. Gutt
12:30 – 14:00	Lunch	
14:00 – 16:30	Plans and requirements for the future based on the Tromsø report; what are additional stand-alone targets and/or products of our SOOS WG? (plenary discussion)	L. de Steur
16:30 – 17:00	Short wrap-up and farewell	All chairs

This schedule is flexible and will be adjusted to the number of presentations. The length of presentations will be decided after the deadline for submissions of abstracts.