

# KRILL READER

Issue. 1

## WELCOME TO THE KRILL READER

The SCAR Krill Action Group newsletter

SKAG seeks to promote collaboration, improve understanding of krill biology and ecology, and provide a forum for information exchange within the krill community. SKAG members represent a broad swath of the krill community including scientists, CCAMLR, interest groups and industry. We hope that the KRILL READER will facilitate communication, understanding, and learning in the community.

To accomplish this, the newsletter has three main parts. News includes the latest from SKAG and CCAMLR and its members. *Happenings* promotes conferences, workshops, seminars, and other opportunities relevant to the SKAG community. And *Hot Off The Press* highlights the latest krill publications from the SKAG community.

## A CCAMLR PRIMER

One of the goals of SKAG is to act as a conduit between

## NEW SKAG LOGO

The SKAG logo was designed by Aleksandr Sytov and Maria Norkina of Russia. Sytov is an early-career researcher and SKAG member, and Norkina provided artistic expertise to the project. The logo illustrates the circumpolar distribution of krill and is meant to emphasize the species' key role throughout the Southern Ocean.



CCAMLR and the broader scientific community. While some members are familiar

## NEWS

Welcome to the Krill Reader

New SKAG Logo

A CCAMLR Primer

## HAPPENINGS

SKAG meeting-  
March 2022

ICED/SKAG Session  
Ocean Sciences 2022

## Hot Off the Press

Let other members  
know what you're  
working on.

with, or even participate in CCAMLR, others may be asking what exactly is CCAMLR (Commission for the Conservation of Antarctic Marine Living Resources), how does it work (it's complicated), and at the very least what are all the acronyms (SAM?, FSA?, EMM?, CEMP?!). So here is a brief informal primer on CCAMLR.

The CAMLR Commission was established in 1982 due to concerns about the growing harvest of Antarctic krill and Southern Ocean fishes. There are 25 members in the commission and 11 acceding states. Each member has agreed to conservation of Antarctic Marine Living Resources, including rational use, as laid out in the founding Convention. Any rational use must follow three principles of conservation: "prevention of decrease in the

size of harvested populations to levels below those of which ensure its stable recruitment", "maintenance of ecological relationships between harvested, dependent and related populations", and "minimization of the risk of changes in the marine ecosystem which are not potentially reversible over two or three decades." The Convention also divides Southern Ocean Area and Subarea management units (see map below). The Articles of the Convention are inspiring, as fishery conventions go, and worth a read.

CCAMLR is headquartered in Hobart, Australia. Its work is conducted through a series of annual meetings. The primary meeting is the Commission meeting where representatives of each member country establish Conservation Measures (CM's), working groups (WG's) to address various issues, and work out the administration

## CCAMLR Working Groups

The WGs coordinate flexibly where appropriate to develop advice to the SC.

**SAM-**Statistics, Assessments and Modeling is where members work on the development of yield models for krill

**ASAM-** Acoustic, Survey and Analysis Methods is tasked with estimating krill biomass

**EMM-** Ecosystem Monitoring and Management is the largest WG and assesses status of krill and its ecosystems and develops management advice for the Scientific Committee.

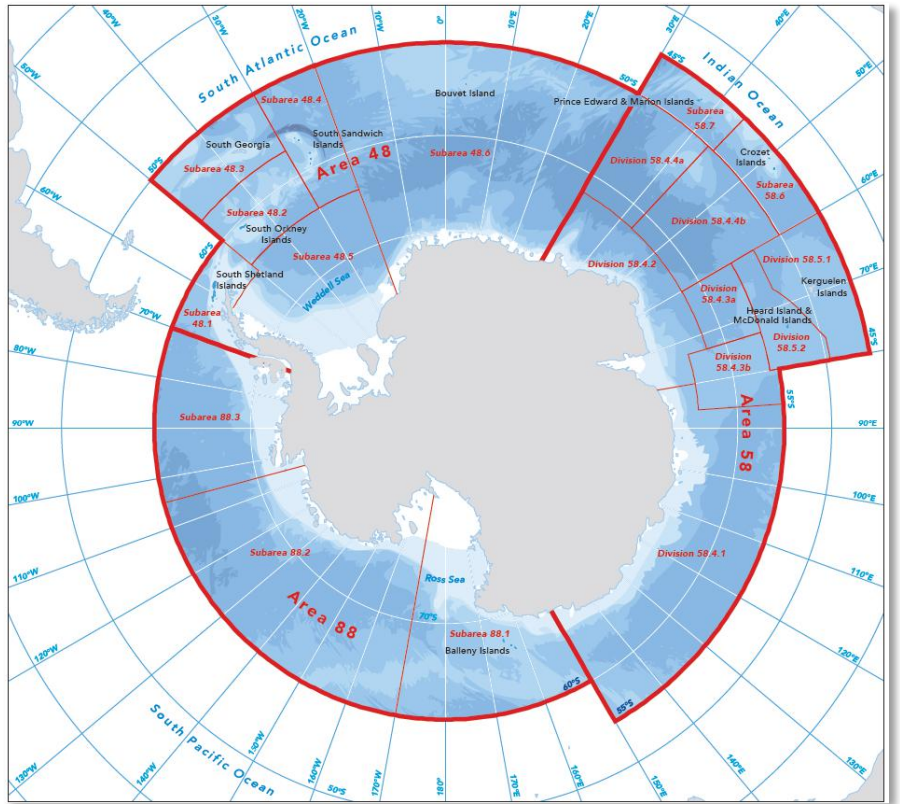
**FSA-** Fish Stock Assessment assesses stocks of fishes

**IMAF-** Incident Mortality Associated with Fishing was reformed this year to investigate several cetacean mortality incidents

*Know Your Swarm*

*Check here in the next issue for interviews with SKAG Members*

and finances of CCAMLR. The Commission is advised by the Scientific Committee (SC-CAMLR) which is composed of scientists from each member country. Representatives from various interest groups are also invited as observers. The Scientific Committee meets the week before the Commission and drafts a report highlighting the major findings of the various CCAMLR WG's. These WG's meet throughout the year and are where much of the science of CCAMLR is done. See Side Panel for some of the key groups for krill.



# HAPPENINGS

## **Annual SKAG Meeting Announcement**

**7 to 11 March, 2022 (Virtual)  
1600-1800 CEST**

The SCAR Krill Action Group (SKAG) invites all members to its annual SKAG meeting in 2022, with updates on SKAG and its previous initiatives and associated groups, talks from members, themed discussions, and election of board members. The meeting will start with updates from MEASO, ICED, CCAMLR, and a new group, the Science and Industry Forum (SIF). The following 2 days will feature sessions on using new instruments and techniques (e.g. gliders) and fishing vessels for data collection and discussions on ways in which the krill community can use these research platforms to close knowledge gaps. We will then hear talks from SKAG Early Career Researchers. Discussions will aim to identify ways to improve scientific inputs into CCAMLR and develop cooperation with SIF. Members will also discuss SKAG organization and the confirmation of new board members.

## **ICED/SKAG Session at Ocean Sciences Meeting**

Oral presentation session: "The role of Southern Ocean ecology in the Earth system: integrating across scales, disciplines, and methods"

**Friday, March 4<sup>th</sup> 9-11pm EST (US)**

Joint Antarctic-Arctic poster session: "High Latitude Environments"

**Wednesday, March 2<sup>nd</sup> 9-11pm EST (US)**

# Hot Off The Press

Hey SKAG Members, in the upcoming editions you can promote your latest publication here. Just send the publication information (Title, Authors, Journal info, DOI) to SKAG Communications Chair Ryan Driscoll ([ryan.driscoll@awi.de](mailto:ryan.driscoll@awi.de)) and we will be sure to include it.

In our first Hot Off the Press we learn; whether krill use rudimentary stone highways to migrate south; if krill find gliders to be awkward party guests; just how many krill prefer to stand vs sit; the latest krill diet fads; some more crap; and home trends for cozy krill winters.

- A. Atkinson et al. - Stepping stones towards Antarctica: Switch to Southern Ocean spawning grounds explains an abrupt range shift in krill - Global Change Biology  
<https://doi.org/10.1111/gcb.16009>
- D. Guihen et al. - Antarctic krill likely avoid underwater gliders - Deep-Sea Research  
<https://doi.org/10.1016/j.dsr.2021.103680>
- B. Krafft et al. - Standing stock of Antarctic krill (*Euphausia superba* Dana, 1850) (Euphausiacea) in the Southwest Atlantic sector of the Southern Ocean, 2018-19 - Journal of Crustacean Biology  
<https://doi.org/10.1093/jcbiol/ruab046>
- N. Pauli et al. – Selective feeding in Southern Ocean key Grazers-diet composition of krill and salps – Communications Biology  
<https://doi.org/10.1038/s42003-021-02581-5>
- N. Pauli et al. - Krill and Salp fecal pellets contribute equally to the carbon flux at the Antarctic Peninsula – Nature Communications  
<https://doi.org/10.1038/s41467-021-27436-9>
- D. Veytia et al. – Overwinter sea-ice characteristics important for Antarctic krill recruitment in the southwest Atlantic – Ecological Indicators  
<https://doi.org/10.1016/j.ecolind.2021.107934>

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