

BEPSII: Biogeochemical Exchange Processes at Sea-Ice Interfaces

A joint CliC, SOLAS
and SCAR Activity

Steering Committee:

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***Next meeting June 15-17 June
2018, before POLAR2018.***

BEPSII history

- A global research community of sea-ice biogeochemists
- ~60 people from 17 countries on our mailing list
- Phase 1, SCOR WG 140: 2012-6
- Addressed fundamental issues in communication and methods
- Phase 2, Approved by SOLAS and CliC as a longer-lived activity: 2015 onward, endorsement from SCAR 2016:
- Developing the tools to tackle big-picture questions of global relevance and feedbacks
- BEPSII subgroup: Since 2016 New SCOR Working Group 152:
- Measuring Essential Climate Variables in Sea Ice (ECV-Ice) out of the BEPSII task group on measurements and method development
- Next meeting: 15-17 June, Davos, Switzerland, before Polar 2018

A **5 year science plan** is currently being finalized and focuses on tasks around the **revised objectives**:

Develop dedicated consistent methodologies for sea ice biogeochemical research

Establish effective sea-ice biogeochemical data archiving approaches and databases

Foster process studies to determine impact on ecology and biogeochemical cycles.

Foster technological developments and international knowledge transfer towards large-scale, autonomous and high-frequency sampling of sea ice biogeochemical parameters.

Improve the representation and evaluation of sea ice biogeochemistry in regional and Earth System numerical models.

Synthesize and integrate observational and modeling efforts.

Continually revise and renew scientific foci, teams, and objectives.

Develop conceptual models describing sea-ice interactions in or with the Earth System.:



ELEMENTA
Science of the Anthropocene

*BEPSII special feature
in Journal Elementa*



Special Collection

Special Feature: Biogeochemical Exchange Processes at Sea-Ice Interfaces (BEPSII)

Collection launched: 23 Jan 2015

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Assessing biogeochemical and physical processes at the ocean-ice-snow-atmosphere interfaces and their role in the climate system

16 papers

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A second special
collection will
be Initiated in fall 2017