



DFG-SCHWERPUNKTPROGRAMM 1158

ANTARKTIS FORSCHUNG

mit vergleichenden Untersuchungen in arktischen Eisgebieten

Program

Coordination-Workshop SPP 1158

(12.-14.09.2018, Justus-Liebig-University Gießen, Neues Chemiegebäude,
Heinrich-Buff-Ring 17, 35392 Gießen)

Wednesday, 12. September 2018

7:00 pm **Icebreaker: Neues Chemiegebäude (foyer)**, Heinrich-Buff-Ring 17, 35392 Gießen

Thursday, 13. September 2018

8:30-9:15 am

Neues Chemiegebäude, lecture hall C1

Petra Quillfeldt (University
Gießen)

Welcome

Prof. Peter Kämpfer
(University Gießen)

Welcoming speech of the Vice-President for Research and Graduate
Studies at the Justus-Liebig-University Gießen

Ulf Karsten (Rostock)

The priority program for Antarctic Research: Background and recent
applications

9:15-10:00 am

Short Presentations *Neues Chemiegebäude, lecture hall C1*
(Moderation: *Bánk Beszteri*)

Tilmann Harder (Bremen),
Jan Tebben (Bremerhaven)

Understanding trace element bioavailability: microalgal ligands and
bacterial siderophores affecting productivity in the Southern Ocean

Boris Koch (Bremerhaven)

Life at the limit: Organic ligands as control variables of primary production
in Antarctic waters

Ilka Peeken (Bremerhaven)

Biodiversity and anthropogenic foot prints in archived sea ice cores -
"Banfopasic"

Matthias Braun (Erlangen-
Nürnberg), presented by
Peter Friedl (Erlangen-
Nürnberg)

Current state and future sensitivity of Wordie Ice Shelf

Andreas Beck (München)

Effect of snow cover length on the symbiotic composition of Antarctic lichens

10:00-10:30 am

Coffee Break Neues Chemiegebäude, foyer

10:30 -11:40 am

Short Presentations Neues Chemiegebäude, lecture hall C1
(Moderation Petra Quillfeldt)

Kai Bischof (Bremen)

Migration of Laminariales into Antarctica (MILAN): Dispersal of the giant kelp *Macrocystis pyrifera* facilitated by climate change?

Matthias Schmid (Hobart)

Polar algae in the future ocean

Thomas Wichard (Jena)

Acclimation of the green seaweed *Ulva* and its microbiome to a changing environment

Morten H. Iversen (Bremen),
Scarlett Trimborn, Jan-
Hendrik Hehemann,
Silke Thoms (Bremerhaven)

Climate change impact on ecosystem structure and the efficiency of the biological carbon pump for Antarctic diatom- and *Phaeocystis*-dominated phytoplankton communities

Hans-Peter Grossart, Ulf Karsten (Rostock)

Ecological role of fungal parasites in benthic diatoms of polar coastal waters

Bánk Beszteri
(Bremerhaven), Uwe John,
Klaus Valentin
(Bremerhaven), Gernot
Glöckner (Köln)

Genomic signatures of neutral and adaptive microevolutionary processes in *Fragilariopsis kerguelensis*, a main silicate sinker of the Southern Ocean

Jonas Zimmermann (Berlin),
Ulf Karsten (Rostock)

Endemism vs. cosmopolitanism: assessing polar benthic diatom diversity and biogeography patterns as baseline for environmental change using an integrative approach

11:40 am - 12:00 Uhr

DFG Neues Chemiegebäude, lecture hall C1

Susanne Faulhaber (Bonn)

DFG – Notes on the application

12:00-1:00 pm

Lunch Break Neues Chemiegebäude, foyer

1:00-3:00 pm

**Poster Session (1:00-2:00 pm Poster with uneven number,
2:00-3:00 pm Poster with even number)
and Coffee Break** Neues Chemiegebäude, foyer

3:00-3:10 pm

Logistics Neues Chemiegebäude, lecture hall C1
(Moderation: Mirko Scheinert)

Frank Lisker (Bremen)

Logistics of the Federal Institute for Geosciences and Natural Resources

3:10-4:30 pm

Short Presentations Neues Chemiegebäude, lecture hall C1

Cornelia Spiegel (Bremen),
Nikola Koglin (Hannover),
Frank Lisker (Bremen)

The Scotia Sea tectonic puzzle – a reconnaissance study

Sonja Berg (Köln)

Mumiyo deposits in East Antarctica - archives for late Quaternary environmental and climatic conditions

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| <u>Gerhard Kuhn</u> (Bremerhaven), Gerhard Bohrmann (Bremen), Tilo von Dobeneck (Bremen) | Palaeoceanographic and environmental changes around South Georgia during the last deglaciation |
| Karsten Gohl (Bremerhaven), <u>Ricarda Dziadek</u> (Bremen) | Heat flux in the Amundsen Sea Embayment, West Antarctica |
| <u>Günther Heinemann</u> (Trier), Ralph Timmermann, <u>Tido Semmler</u> (Bremerhaven) | Regional high-resolution Downscaling of Climate Change in the Weddell Sea, Antarctic (REDOCCA) |
| <u>Krissy Reeve</u> (Bremerhaven) | The Weddell Gyre: upwelling (WedUp) |
| Gunter Seckmeyer (Hannover), presented by <u>Jens Duffert</u> (Hannover) | Cloudall, cloud properties in Antarctica determined by all-sky observations |
| <u>Mariana Soppa</u> (Bremerhaven) | Ocean Colour Remote Sensing as Sentinel for the Southern Ocean: investigating climate variability across scales |

4:30-6:10 pm

Short Presentations Neues Chemiegebäude, lecture hall C1
(Moderation: Kai Bischof)

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| Christian Printzen, <u>Elisa Lagostina</u> (Frankfurt) | A metabarcoding approach to study internal symbiotic composition of Antarctic lichens along geographical and ecological gradients |
| Burkhard Becker, <u>Martin Rippin</u> (Köln) | Identification of key genes for the survival in Antarctica in biological soil crust communities |
| <u>Thomas Schweder</u> (Greifswald) | Polysaccharide utilization mechanisms under permanent low-temperature conditions in the Southern Ocean |
| <u>Joe Hoffman</u> (Bielefeld) | Genomic dissection of climate change impacts on a declining Antarctic top predator population |
| <u>Magnus Lucassen</u> (Bremerhaven) | Cold adaptation in Antarctic fish: Interaction of ion regulation and antifreeze glycoproteins in freeze protection! |
| Felizitas Wermter (Bremerhaven) presented by <u>Ulf Karsten</u> (Rostock) | Unrevealing the neurophysiological mechanisms responsible for OWA induced behavioral changes in polar fish: a NMR approach |
| <u>Frank Melzner</u> (Kiel), Meike Stumpp (Kiel) | Invertebrate calcification in the cold: from mechanisms to climate change vulnerability |
| <u>Gertraud M. Schmidt</u> (Bremerhaven) | Southern Ocean Cold-water Corals as Environmental Recorders (SOCCER) |
| <u>Charlotte Havermans</u> (Bremen) | Illuminating the presence and role of a hidden predator in the Southern Ocean using eDNA and metabarcoding |
| <u>Lars Dietz</u> (Bonn) | Phylogenomics of Antarctic crustaceans |

7:00 pm

Dinner
Mathematikum, Liebigstraße 8, 35390 Gießen

Friday, 14. September 2018

8:30-9:20 am

Short Presentations Neues Chemiegebäude, lecture hall C1
(Moderation: Boris Koch)

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| <u>Larysa Istomina</u> (Bremen) | Recent Antarctic sea ice surface melt from satellite remote sensing |
| <u>Johanna Kerch</u> (Bremerhaven) | Deformation localization and spatial variability in anisotropic properties of ice on small scales |
| <u>Torsten Albrecht</u> (Potsdam) | Thermocline-forcing of the Antarctic ice dynamics |
| <u>Martin Horwath</u> (Dresden) | Revealing climate signals in surface elevation changes of the East Antarctic Ice Sheet |
| <u>Stefan Kowalewski</u> (Bremen) | UMBRella: Unveiling the role of the spatiotemporal variability of snow accumulation for the West Antarctic Surface Mass Balance from airborne Radar soundings and process model simulations |

9:20-10:00 am

Networking Neues Chemiegebäude, lecture hall C1
(Moderation: Sonja Berg)

Günther Heinemann
(Trier)

SCAR – Scientific Committee on Antarctic Research

Mirko Scheinert
(Dresden)

DGP – Deutsche Gesellschaft für Polarforschung

Andreas Preußner (Trier)

APECS – Association of Polar Early Career Scientists

Monika Kallfelz (Bad Dürkheim)

Polar Educators

10:00-10:30 am

Coffee Break Neues Chemiegebäude, foyer

10:30-11:10 am

Logistics & Data Management PANGAEA Neues Chemiegebäude, lecture hall C1 (Moderation: Martin Horwath)

Daniel Steinhage
(Bremerhaven)

Logistics of the Alfred Wegener Institute: Research Vessel Polarstern, Stations and Research Aircrafts

Pierre Lagadrilliere
(Oberpfaffenhofen)

Logistics of the German Aerospace Center (DLR): GARS-O'Higgins

Amelie Driemel
(Bremerhaven)

PANGAEA® - Data Publisher for Earth & Environmental Science

11:10 am-12:00 pm

Wrap-up and discussions Neues Chemiegebäude, lecture hall C1

Ulf Karsten (Rostock)

Summary and hints

Wishes and problems of the polar researchers

12:00-1:00 pm

Lunch Break Neues Chemiegebäude, foyer

1:00-1:30 pm

Meeting in small groups (lecture hall C 1, seminar room C 106, foyer)

Coordination and strategies of projects

Bundling or cross-linking of projects

Long-term plans of project initiatives

2:00-4:00 pm

Meeting of the Polar Educators (seminar room C 106)