
International Symposium on
Plastics in the Arctic
and Sub-Arctic Region

2-4 & 8-9 MARCH
Online

DRAFT AGENDA



SYMPOSIUM HOSTS



| Government of Iceland



Nordic Council
of Ministers

INTERNATIONAL SYMPOSIUM ON
**PLASTICS IN THE
ARCTIC**
AND THE SUB-ARCTIC REGION

SYMPOSIUM AGENDA

2-4 & 8-9 March 2021

WELCOME TO THE ONLINE INTERNATIONAL SYMPOSIUM ON PLASTICS IN THE ARCTIC AND THE SUB-ARCTIC REGION

The Government of Iceland in collaboration with the Nordic Council of Ministers host the International Symposium on Plastics in the Arctic and Sub-Arctic Region on March 2-4 & and 8-9 2021 in connection with the Icelandic Chairmanship of the Arctic Council. On behalf of the government of Iceland, the Ministry for Foreign Affairs, the Ministry for the Environment and Natural Resources, and the Ministry of Industries and Innovation are responsible for the preparation of the Symposium.

The symposium is further sponsored by the International Council for the Exploration of the Sea (ICES), North Pacific Marine Science Association (PICES), the United Nations Environment Programme (UNEP), the OSPAR Commission, the Intergovernmental Oceanographic Commission of UNESCO (IOC), the Marine and Freshwater Research Institute of Iceland, the Harvard Kennedy School and the International Arctic Science Committee.

The symposium was originally scheduled to take place in Reykjavík, Iceland, in person in April 2020. However, due to the coronavirus pandemic it has now been moved online and will be held in a virtual format.

Iceland holds the Chairmanship of the Arctic Council from May 2019 to May 2021 and has during this period promoted discussion on ways and means that may reduce the impact of plastics in the Arctic Marine Environment.

Iceland held the Presidency of the Nordic Council of Ministers in 2019 and prioritized ocean issues with a focus on the fight against plastics in the marine environment, one of our times biggest challenges. The Presidency project NordMar Plastic runs for three years, up until 2021 and is in joint partnership of all eight Nordic countries.

The International Symposium will focus on scientific knowledge of the problem and the best practices to deal with the huge challenge. In this way the symposium is expected to build a foundation of science and deliver information and advice for decision makers. Presentations except for the opening and closing sessions will be pre-recorded and available for participants to view at least 10 days before each session starts. Presenters or co-authors will participate in panel discussions on the content of their presentations. Poster sessions will also be pre-recorded.

The symposium is furthermore expected to contribute to the Arctic Council's work on plastic litter during the Icelandic Chairmanship.

www.arcticplastics2020.is



SYMPOSIUM PARTNERS



HARVARD Kennedy School
BELFER CENTER
for Science and International Affairs
Arctic Initiative



Protection of the Arctic Marine Environment



**MARINE & FRESHWATER
RESEARCH INSTITUTE**



**OSPAR
COMMISSION**

*Protecting and conserving the
North-East Atlantic and its resources*



United Nations
Educational, Scientific and
Cultural Organization



Intergovernmental
Oceanographic
Commission



UArctic



IASC



UNEP



NordMar
Plastic



PICES



**ICES
CIEM**

TUESDAY, MARCH 2

(Please note that all times are in GMT)

14:00-14:30: OPENING SESSION

Moderator: Einar Gunnarsson, *Chair of the Senior Arctic Officials*

14:00: Opening and welcoming remarks

Guðlaugur Þór Þórðarson, *Icelandic Minister for Foreign Affairs and International Development Cooperation*

Krista Mikkonen, *Finnish Minister of Environment and Climate, on behalf of the Nordic Council of Ministers*

Keynote by Inger Andersen, *Executive Director UNEP*

14:30-14:45: Health break

14:45-15:00 Poster session: Sources of plastic (pre-recorded)

- How to fight plastic waste into the Arctic – The tax-incentive system for fishermen, *Luna Aristei, PhD Fellow*
- More ships, more litter? *Tina Schoolmeester, Head Polar and Climate Programme, GRID-Arendal*
- Beach litter deep dives – a tool for improved understanding of sources of and behaviour behind littering, *Jannike Falk-Andersson, Senior researcher at SALT Lofoten*
- Hot spots of beach litter in the Arctic, *Marcus Schulz, Associate Prof.Dr*



15:00-15:45: ARCTIC COUNCIL – MARINE LITTER AND MICROPLASTICS WORK UNDERTAKEN BY THE ARCTIC COUNCIL WORKING GROUPS

Moderator: Magnús Jóhannesson

PANELISTS:

Elizabeth McLanahan,
Director, NOAA Office of International Affairs.

Eivind Farnen,
PhD, Senior adviser, Section for Environmental Monitoring

Mark Mallory
Canada Research Chair in Coastal Wetland Ecosystems

Jennifer Provencher,
Research Scientist for Environment and Climate Change Canada,

PRE-RECORDED SPEECHES (15 min.)

Towards harmonized monitoring of litter and microplastics in the Arctic,
Eivind Farnen

AMAP seabird monitoring guidelines as a case study,
Jennifer Provencher

Overview of Arctic Council's Regional Action Plans,
Elizabeth McLanahan

Overview of AMBI-CAFF seabird and plastics workshops in Iceland and Russia,
Mark Mallory and Maria Gavrilov

Shorebirds ingest plastics too: A review of what we know and what we don't know,
Scott Flemming, CAFF IASC Fellow/Environment and Climate Change Canada

15:45-16:00: Health break

16:00-16:15 Poster session: Macro plastics, methods and monitoring (1) (pre-recorded)

- Elasmobranchs as bioindicators? A comparative study on ingestion of plastics in the North, *Gordon Breckwoldt, Master of Science.*
- Norwegian Institute for Water Research (NIVA) and Hurtigruten partnership to bring light to the gaps in plastic marine litter knowledge, *Dr. Verena Meraldi, Chief Scientist*
- Mapping marine litter in the Norwegian and Russian Arctic Seas -MALINOR, *Frank Beuchel, Senior Scientist*
- Beach litter monitoring in the Arctic using remote sensing data. Marc Schnurawa, *Master of Science in "Environmental Earth Science".*

16:15-17:15: SOURCES AND TRANSPORT OF MACRO PLASTIC TO THE ARCTIC AND SUB-ARCTIC

Moderator: Kara Lavender Law

PANELISTS:

Dr. Melanie Bergmann,
HGF-MPG Group for Deep-Sea Ecology and Technology

Lise Gullbransen,
CEO of Keep Norway Beautiful

Victor Onink,
PhD student

Anfisa Berenzina,
Junior Researcher at Shirshov Institute of Oceanology

Valtýr Sigurðsson,
Marine Biologist MSc.

PRE-RECORDED SPEECHES (15 min.)

Keynote by Melanie Bergmann (30 min.)

What can litter collected on the beaches of Jan Mayen tell us about plastics in the Arctic?
Lise Gullbransen

The contribution of terrestrial sources to arctic marine plastic pollution,
Victor Onink

Modelling influence of plankton and organic matter seasonality on distribution of microplastic in water column,
Anfisa Berezina

Microplastics in Iceland - Main Sources and Pathways to the Ocean,
Valtýr Sigurðsson

17:15-17:30: THE CONTAINER INCIDENT WITH THE MSC ZOE:

assessing damage and compensation for Arctic breeding migratory bird populations under the EU environmental liability directive, Prof. Dr.Ir. *Katja Philippart* and Prof. *Mr. Edward Brans* [Pre-recorded]

WEDNESDAY, MARCH 3

Meeting platform opens 30 minutes before panel discussion starts, poster presentations playing from 15 minutes before meeting commences.

13:45-14:00 Poster session: Micro plastics, methods and monitoring (1) (pre-recorded)

- Characterization of microplastics in water and beach sediment samples from three locations in the Canadian Arctic, *Madelaine Bourdages, M.Sc. PhD Student*
- Microplastics pollution of the Russian Arctic along the Northern Sea Route: first results of field monitoring, *Alexandra Ershova, PhD, Head of Department for Research and Innovations.*
- Studies of microplastic distribution in the Russian Arctic Seas during the RV "Academic Mstislav Keldysh" cruises in 2018 and 2019, *Dr. Evgeniy Yakushev. Senior Researcher*

PRE-RECORDED SPEECHES (15 min.)

Microplastic pollution in the Oslo area – A comparison of rivers with various anthropogenic impact,
Claudia Lorenz

Transport of microplastic fibers from wastewater in an Arctic fjord, *Dorte Herzke*

Sea ice as hotspot for plastic pollution in the Arctic: micro and nano plastics occurrence and impact on the Central Arctic,
Elisa Bergami

Arctic Legacy in the global plastic load,
Chris Wilson

Are seabirds a vector of microplastics to Arctic ecosystems: A case study in the Qikiqtarjuaq region of Baffin Island, Nunavut, Canada, *Bonnie M. Hamilton*

The effect of intrinsic properties and UV-degradation on the fate of microplastic fibers in the marine environment,
Lisbet Sørensen

14:00-15:00: SOURCES AND TRANSPORT OF MICRO PLASTIC TO THE ARCTIC AND SUB-ARCTIC

Moderator: Kara Lavender Law

PANELISTS:

Claudia Lorenz,
PhD

Dorte Herzke,
Senior researcher, NILU

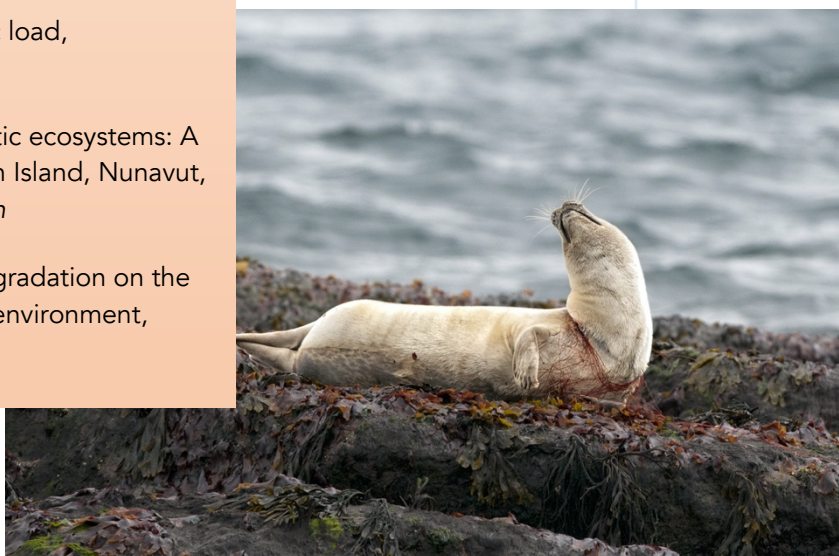
Elisa Bergami,
PhD, SCAR Plastic in polar environments-Action Group

Dr. Chris Wilson,
Physical Oceanographer

Bonnie M. Hamilton,
PhD Candidate, University of Toronto

Lisbet Sørensen,
Senior Research Scientist

15:00-15:15: Health break



15:15-15:30 Poster session: Macro plastics, methods and monitoring (2) (pre-recorded)

- No plastics detected in seal (Phocidae) stomachs harvested in the eastern Canadian Arctic, *Madelaine Bourdages, MSc., PhD Student*
- Investigating the occurrence and characteristics of plastics ingested by an Arctic apex predator, the arctic fox (*Vulpes lagopus*), *Dr. Ingeborg Hallanger.*
- Seabirds as indicators of plastic in the marine food web in mainland and Arctic Norway, *Nina Dehnhard, Seabird Ecologist, Dr. Rer.nat at the Norwegian Institute for Nature Research (NINA)*
- Plastics pollution as a threat to marine birds in the Russian Arctic and northern seas: a first overview (summary of the seminar under the AMBI / CAFF project Plastics and Seabirds: Habitat mitigation), *Dr. Maria Gavrilov*
- Plastic ingestion by seabirds in the Canadian Arctic: Comparisons across species and time, *Julia Baak, M.Sc., PhD student*

15:30-16:30: METHODOLOGY FOR MACRO PLASTIC

Moderator: Sarah Dewey

PANELISTS:

A.N. de Vries,

MSc. Researcher/project coordinator

Jennifer Cocking,

PhD Researcher

Georg Hanke,

*PhD., European Commission Joint Research
Centre*

PRE-RECORDED SPEECHES (15 min.)

Plastic ingestion in commercially important fish stocks: method standardization for Arctic rural communities,
A.N. de Vries

Aerial detection of plastic pollution in the marine environment with a novel, hyperspectral infrared camera and a UAV,
Jennifer Cocking

Experience in large scale litter monitoring as input to Arctic litter monitoring set-up,
Georg Hanke



END OF DAY 2

THURSDAY, MARCH 4

Meeting platform opens 30 minutes before panel discussion starts, poster presentations playing from 15 minutes before meeting commences.

13:45-14:00 Poster session: Micro plastics, methods and monitoring (2) (pre-recorded)

- Can Amphipods be a bio-indicator for microplastics? Ingestion of small micro-plastics (1-100 μm) in Amphipods from Iceland and Svalbard, *Dr. Fabiana Corami*
- Microplastic ingestion of sub-arctic freshwater fish analysed with enzymatic treatment and FPA-based FTIR imaging, *Emilia Uurasjärvi, Early-stage researcher*
- Microplastics in zooplankton from the Fram Strait, *Zara Botterell, PhD researcher*
- Diet and micro plastic ingestion in pelagic fish in the North Atlantic Ocean, *Jórun Pólsdóttir, Bachelor of Science in Biological Ecology, the Faroe Marine Research Institute*

14:00-15:00 Methodology for micro/nano plastic

Moderator: Chelsea Rochman

PANELISTS:

Jes Vollertsen,

Professor of Environmental Engineering at Aalborg University

Vegard Stürzinger,

MSC Marine biology

Dr. Fabiana Corami,

Dr. France Collard,
Norwegian Polar Institute

PRE-RECORDED SPEECHES (15 min.)

**Keynote: Methods to quantify microplastics
– from the early beginnings till now,
Jes Vollertsen (30 min.)**

Let it glow- micro plastic in snow,
Vegard Stürzinger

Small micro-plastics (1-100 μm) in Svalbard
soil: a novel method for purification,
quantification and characterization using
Micro-FTIR,
Fabiana Corami

Microplastics in sediments from
Kongsfjorden, Svalbard,
France Collard



15:00-15:15: Health break

15:15-15:30 Poster session: Micro plastics, methods and monitoring (3) (pre-recorded)

- Microplastics in a remote Icelandic glacier, *Alessio Gomiero, PhD, Senior Research Scientist*
- A temporal sediment record of microplastics in Haukadalsvatn, a lake in Iceland, *Alessio Gomiero, PhD, Senior Research Scientist*
- Microplastics occurrence and composition in drinking water from an Icelandic urban area, *Ásta Margrét Ásmundsdóttir, Chemist and adjunct at the University of Akureyri*
- From seawater via plankton to seabirds - transfer of microplastics through the Arctic food web, *Marlena Szeligowska, PhD Student*
- Bio-based Alternatives to Petroleum-based Plastics for Seafood Industry and Thermal Packaging: New Prospects for Reducing Microplastics Pollution, *Philippe Amstislavski, PhD, MEM*

15:30-16:30 OCCURRENCE OF PLASTIC IN THE ARCTIC

Moderator: *Grönn Ólína Jörundsdóttir*

PANELISTS:

Jennifer Provencher,

Research Scientist for Environment and Climate Change Canada),

Alvise Vianello,

PhD.

Dr. Maria Gavrilov,

Association Maritime Heritage and BirdsRussia

Dr. Amy Lusher,

Jórun Pólsdóttir,

Bachelor of Science in Biological Ecology, working at the Faroe Marine Research Institute

Douglas Causey,

PhD. Professor, University of Alaska Anchorage; Arctic Initiative Associate, Harvard Kennedy School, Belfast Center for Science and International Affairs

Ásta Margrét Ásmundsdóttir,

Chemist and adjunct at the University of Akureyri

PRE-RECORDED SPEECHES (15 min.)

Keynote by Jennifer Provencher (30 min.)

First quantification of microplastic > 10 µm in Western Greenland using a novel filtration device, *Alvise Vianello*

Plastic in the Russian high-Arctic: initial survey of marine litter, *Maria Gavrilov*

Large-scale study of microplastics in five bivalve species from the Nordic marine environment: A validated approach to monitoring, *Amy Lusher*

Diet and micro plastic ingestion in pelagic fish in the North Atlantic Ocean, *Jórun Pólsdóttir*

Monitoring the Presence, Abundance, and Identity of Micro- and Nano-plastics of Arctic and Beringian Foodwebs, *Douglas Causey*

First record of the occurrence and composition of microplastics in sediments in Eyjafjörður, Iceland, *Ásta Margrét Ásmundsdóttir*

END OF DAY 3

MONDAY, MARCH 8

Meeting platform opens 30 minutes before panel discussion starts, poster presentations playing from 15 minutes before meeting commences

13:45-14:00 Poster session: Macro plastics, methods and monitoring (3) (pre-recorded)

- Is the Bering Strait Another Important Entry Channel of MPs in Arctic Environment: Two-year (2016-2017) ARAON Expedition, *Seung-Kyu Kim, Associate Professor, Department of Marine Science, Incheon National University*
- Quantifying avian-plastics interactions: recommendations for monitoring and standardisation, *Nina O'Hanlon, Seabird Ecologist (PDRA)*
- Monitoring Nordic reference beaches, *Malin Dahl, project manager*
- Floating marine macro litter monitoring in the Barents and White Seas, *Maria Pogojeva, Senior Scientist.*

14:00-15:00 MONITORING OF PLASTICS IN THE ARCTIC

Moderator: Hrönn Ólína Jörundsdóttir

PANELISTS:

Peter Murphy,
*Regional Coordinator – Alaska, NOAA
Marine Debris Program;*

Liz Pijogge,
*Northern Contaminants Researcher,
Nunatsiavut Government;*

Jakob Strand,
Senior Researcher at Aarhus University;

Georg Haney,
*Gear Scientist, Marine & Freshwater
Research Institute*

Dr. Lauren Biermann;

Marc Schnurawa,
*Master of Science in "Environmental Earth
Science".*

PRE-RECORDED SPEECHES (15 min.)

Debris Monitoring in Alaska - Challenges, Successes, and
Observations,
Peter Murphy

Nunatsiavut community-based monitoring of marine
plastics: Methods and early findings,
Max Liboiron and Liz Pijogge

Local Arctic sources can also be significant contributors
to marine litter – results of monitoring surveys in
Greenland,
Jakob Strand

Monitoring marine litter in the Icelandic EEZ,
Georg Haney

Towards a Method for Detecting Macro plastics Floating
in Coastal Waters using Sentinel-2 Satellite Data,
Lauren Biermann

Beach litter monitoring in the Arctic using remote
sensing data,
Marc Schnurawa

15:00-15:15: Health break

15:15-15:30 Poster session: Impact of plastic (eco-tox) (pre-recorded)

- Crumb rubber toxicity in coastal marine systems, *Dr. Claudia Halsband*
- Using seabirds to examine patterns of contaminants related to the ingestion of plastic pollution, *Jennifer Provencher, Research Scientist for Environment and Climate Change Canada*
- Variation in phthalate concentrations in ten seabird species from the Aleutian Archipelago, *Veronica M. Padula, Academic Program Director, Bering Sea Campus and Research Center, Aleut Community of St. Paul Island Tribal Government*
- The container incident with the MSC Zoe: assessing damage and compensation under the EU environmental liability directive, *Prof. Dr.Ir. Katja Philippart and Prof. Mr. Edward Brans*

15:30-16:30 IMPACT OF PLASTIC (TOXICOLOGY AND ECOTOX)

Moderator: Bjørn Einar Grøsvik

PRE-RECORDED SPEECHES (15 min.)

Do microplastics influence the toxicity of crude oil to Arctic copepods?
Sinja Rist

Influence of food availability on the ingestion and effects of microplastics on arctic copepods,
Rocío Rodríguez-Torres

Risk assessment of additives and residual monomers in microplastics from the Nordic marine environment, *Katrin Vorkamp*

Displaced by plastics,
Gunn-Britt Retter

Microplastic pollution of the bivalve *Hiatella arctica* and the potential consequences for its role as ecosystem engineer in the Arctic,
Ines Pyko

Impacts, Challenges, and Success Stories: Marine Debris on St. Paul Island, Alaska,
Lauren Divine

PANELISTS:

Dr. Sinja Rist.

Rocío Rodríguez-Torre,
PhD candidate

Katrin Vorkamp,
Senior Scientist, Aarhus University;

Gunn-Britt Retter,
Head of Arctic and Environmental Unit, Saami Council

Ines Pyko,
PhD Researcher

Dr. Lauren Divine,
*Director of the Aleut Community of St. Paul Island
Ecosystem Conservation Office*

END OF DAY 4

TUESDAY, MARCH 9

Meeting platform opens 30 minutes before panel discussion starts, poster presentations playing from 15 minutes before meeting commences

13:45-14:00 Poster session: Ways forward (1) (pre-recorded)

- Principles for development and implementation of clean-up technologies, *Jannike Falk-Andersson, Senior Researcher at SALT Lofoten*
- Addressing Abandoned, Lost or Discarded Fishing Gear in the Arctic and beyond, *Ingrid Giskes, Director Global Ghost Gear Initiative*
- Waste-Polymer Enhanced Asphalt, *Guðrún F. Guðmundsdóttir, Environmental Engineer*
- EPB's initiative on reducing Environmental Impacts of Polar Research and Logistics, *Dr. R. Badhe, Executive Secretary EPB; J.Nolan, Policy Officer, EPB and P. Elshout, Project Officer, EPB*

PRE-RECORDED SPEECHES (15 min.)

Keynote by *Heidi Savelli* (30 min.)

Real degradability of bio-based biodegradable plastic materials in subarctic Baltic Sea,
Hermann Kaartokallio

BLASTIC – A methodology and tool for municipalities to prevent plastic litter to enter the marine environment,
Eva Blidberg

Fishing for Litter – a simple solution to clean up the oceans,
Michael Mannaart

Experimental results on microplastics extraction from bottom sediments by "Aeroschup" technology,
Egor Vorobiev

Ocean-to-Land Interface in Addressing Ship-Based Plastic Challenge,
Aleke Stöfen-O'Brien and Zhen Sun

14:00-15:00 WAYS FORWARD

Moderator: Thomas Maes

PANELISTS:

Heidi Savelli,
*Programme Officer Marine Litter,
Global Programme of Action*

Hermann Kaartokallio,
Senior Research Scientist

Eva Blidberg,
Expert in marine litter

Michael Mannaart,
*International Liaison Officer of
KIMO International.*

Egor Vorobiev,
*Student, Biological Institute,
Tomsk State University*

Aleke Stöfen-O'Brien,
*Associate Research Office at the
World Maritime University*

15:00-15:15: Health break

15:15-15:30 Posters: Ways forward (2) (pre-recorded)

- The SCAR Plastic in Polar Environments Action Group: international cooperation on plastic pollution at the poles, *Elisa Bergami, PhD, SCAR Plastic in polar environments-Action Group*
- Experiences and Challenges in Clean-up of Marine Litter in Norway, *Snorre Sklet, Senior Advisor*
- The Arctic Marine Litter Project: finding solutions together, *Drs. Wouter Jan Strietman, Wageningen Economic research (the Netherlands)*



15:30-16:30 WAYS FORWARD

Moderator: Halla Hrunn Logadóttir

PANELISTS:

David Balton,
Senior Fellow, Wilson Center

Melissa Nacke,
Environmental Specialist, Association of Arctic Expedition Cruise Operator

Herminia Din,
PhD., Professor of Art, Art education

Siv Mariana Flø,
Associate Professor, BCE Project Coordinator

Julia Hager,
Marine Biologist

Erica Nuñez,
Senior Manager, Plastics Initiative at Ocean Conservancy

PRE-RECORDED SPEECHES (15 min.)

Keynote by Brittany Janis: Outcome from Marine Plastic Convening 2019 (30 min.)

AECO's clean Seas project - An expedition cruise industry initiative,
Melissa Nacke

Be a voice: A popup guide to plastic pollution in Alaska,
Herminia Din

A circular business model for SMEs in the fishing gear industry,
Siv Mariana Flø Grimstad

Enhancing Awareness of Plastics Pollution among Tourists Travelling the Arctic,
Julia Hager

Plastics Policy Playbook: Strategies for a Plastic-Free Arctic,
Erica Nuñez

16:30-16:45: Health break

16:45-17:45 WAYS FORWARD – INVITED SPEAKERS



Moderator: Magnús Jóhannesson

PANELISTS:

Ingrid Giskes,
Director, Global Ghost Gear Initiative

Michail Papadoyannakis
Senior Expert, Directorate General Environment (European Commission)

Áslaug Hulda Jónsdóttir,
Director, Pure North

Professor Atsuhiko Isobe,
Actions in Japan

Carola van Rijnsoever,
Arctic Ambassador Netherlands

PRE-RECORDED SPEECHES

(15 min.)

Ingrid Giskes

Michail Papadoyannakis

Áslaug Hulda Jónsdóttir

Atsuhiko Isobe

Carola van Rijnsoever

17:45-18:00 CLOSING REMARKS

Guðmundur Ingi Guðbrandsson, *Icelandic Minister for the Environment and Natural Resources*



END OF DAY 5

SYMPOSIUM HOSTS



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of Ministers