**Cruise Expedition Monitoring Workshop at UNIS, Svalbard**

**7 March 2019**

A workshop for improving and expanding the environmental monitoring efforts by cruise ships in the Arctic

**When and Where.** Thursday 7 March 2019 at the University Centre in Svalbard (UNIS) 8.00-17.00. With expected arrival on 6 March and departure on 8 March.

**Objectives.** To jointly develop a cruise expeditions’ Arctic environmental monitoring program comprising dedicated citizen science programs.

**Envisaged output.** Agreement on an Arctic cruise expeditions’ monitoring program to be tested around Svalbard and in the Arctic during 2019.

**Programme**

8.00 Arrival and coffee.

**First session 8.30-10.00: Setting the Scene**

8.30 Welcome by Intaros (Finn Danielsen)

8.50 Presentation on the governance of Svalbard by Lisbeth Iversen (Intaros)

9.10 Presentation by AECO (Ilja Leo Lang)

9.30 Presentation on the Arctic Cruise Project of UNIS by Børge Damsgård

9.50 Coffee break

**Second session 10.00-11.00: Participating Cruise Operators**

Presentations by the participating cruise operators

10.00 Hurtigruten (presentation by Veranda Meraldi),

10.10 Viking Cruises (presentation by Jørn Henriksen)

10.20 Mare Incognita (PowerPoint by Robert Stephan Zergenyi)

10.30 Noble Caledonia (PowerPoint by Pam Le Noury)

10.40 Mentioning of existing and suggested monitoring activities from Skype meetings with PolarQuest (Johanna Vakkila) and Quark (Allison Kean)

**Third session 11-12.20: Citizen Science Programs & Platforms**

11.00 Intro to CS Programmes & Platforms, incl. PISUNA (Michael Poulsen)

**Citizen Science Programmes**

11.05 Sea ice, Ice Watch / ASSIST shipboard sea ice observing programs (Penelope Wagner and Trond Robertson)

11.15 Oceanography, FerryBox (Kai Sørensen)

11.25 Onshore, plastic, algae by Institute of Oceanology, Polish Academy of Sciences - IOPAS (Agnieszka Tatarek)

11.35 Onshore, cultural and historical sites by International Arctic Science Committee (Naja Elisabeth Mikkelsen)

11.45 Global program on wildlife, birds - eBird (Ian Davis)

**Platforms and intermediate organisations**

11.55 LEO Network (PowerPoint by Michael Brubaker)

12.05 Polar Citizen Science Collective (PowerPoint, proposed)

12.15 Aud Andersen (Reiseliv) will introduce herself, attending as observer

12.20-13.30 Lunch break

**Fourth session 13.30-17.00: Workshop Discussions**

Workshop where different topics will be discussed in groups and in plenum.

**Proposed discussion topics**

Some of the possible topics to be discussed are listed below. More can be added.

**Topic 1) Monitoring attributes - What to record?** What are the expedition-cruises interested in recording (possible attributes to be monitored and monitoring methods)? What is interesting for guests? What is interesting for guides? What data do existing citizen science programs ask for? What kind of data is needed immediately to inform better environmental management? Who needs what kind of data? How can cruise ships ensure that monitoring of cultural sites is not unnecessarily harming their operations?

**Topic 2) Reporting format and lines of communication - How to report?** What can we expect from guides as volunteers? Trip reports? Excel-based forms? Apps? Databases? Is paid work needed? Any likely funding sources? Should data be public? How are the observations best reported to ensure that they are used?

**Topic 3) Data users and feedback?** What kind of feedback is needed and how fast, to keep up the interest of everybody involved?

**Topic 4) Testing.** Can we agree on a pilot monitoring program for 2019? Tasks and responsibilities? Pathways to *sustain* the monitoring over time? Is there an interest in “meeting” again?

16.45-17.00 Wrap up by Intaros.

A summary of the workshop discussions and conclusions will be presented and discussed with local stakeholders at the dialogue-seminar at UNIS in the morning of March 8.

**Additional Workshop Description.** Cruise expeditions have the potential to support environmental protection efforts by obtaining information that can help scientists conduct conservation research and provide a better basis for management decisions. Representatives from cruise operators, citizen science programs, local government, local scientists and INTAROS will meet to discuss and develop a Cruise Expeditions Monitoring Program to be tested around Svalbard and in other areas of the Arctic. The focus will be on working towards agreeing on simple methods that can be used alongside the normal cruise activities at sea and on land, and which can be reported on, as far as possible, by using the same format. We will look for monitoring that is meaningful to all involved and which will make the cruises an even richer experience for both guides and guests.

The overall objective is the better management of climate challenges, wildlife and cultural sites. The guests and guides will see the importance of their observations and will feel that they are making a contribution to the environment. The cruise operators will get a say when it comes to selecting appropriate management interventions that do not unnecessarily harm their operations. The researchers will obtain data and information, and decision-makers will obtain a dialog with cruise operators and a stronger evidence for management decisions. The monitoring may include observations by guides and guests, photographs, taking of water, ice or soil samples for later analysis by scientists, etc. The cruise operators will own the monitoring program and the resulting data but data will be shared widely as long as ownership is recognised. The receivers of the data, samples and reports may include cruise guests, cruise guides, relevant databases, conservation organisations and research institutions, as well as authorities responsible for recommending or deciding on management actions.

**Contact**

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