

Project information

Project title

1st FRAM Science Days

Year

2015

Project leader

Melissa Chierici

Participants

organizing committee:

Lis L Jørgensen (IMR, Cost&Fjord flagship)

Arild Sundfjord (NPI, Polhavet)

Laura de Steur (NPI; Polhavet)

Helge Markusson (Framsenteret)

Jo Aarseth (Framsenteret)

Total participants at the FRAM Science days were about 86

Flagship

Ocean Acidification

Funding Source

FRAM centre: 500 kNOK and internal in-kind contribution for organizing committee hours

Summary of Results

Theme: 2015 “Multi-stressors in the Arctic Marine Ecosystem”

Invited speakers: 13 (1 had to cancel)

Poster presentations: 29

Participants: about 85 participants from 7 countries (USA, Sweden, Germany, Norway, Checkia, Poland, Russia)

Young Scientist travel awards: 8 travel awards supporting young scientists from Russia, Germany, Norway, USA, Poland,

Appendix: 1st FRAM Science Days program

Background and motivation for the FRAM Science days

The FRAM Science Days should be a forum to present interdisciplinary science based on the results and research performed within the FRAM centre Flagships. The format in 2015 was to invite a combination of internationally and nationally recognized speakers, and internal speakers from within the flagship programmes to place the flagship research in a larger context. Other objectives are to increase the knowledge on the on-going research and improve cross-collaboration in the flagships. The Science Days should also include a panel discussion on specific urgent issues. The theme in 2015 was "Multi-stressors in the Arctic Marine Ecosystem". To facilitate for participation of Young scientists, the conference funds Young Scientist Travel awards by 10000 NOK/each. The FRAM Science Days was planned to be an annual interdisciplinary science event, jointly organized between 2-3 Flagships. This year the organizing Flagship programs were: "The Ocean Acidification", "Coast and Fjord", and "The Arctic Ocean".

We had three sessions with 13 speakers during the two days of conference (see program). Day 1 started with keynote speaker Jaqueline Grebmeier, Univ. of Maryland, USA, followed by six 25 minutes presentations by speakers. Day 2 commenced by a keynote speaker Raul Primicerio (UiT-The Arctic University of Norway), and continued with four (one cancellation due to illness). Day 2 ended by a panel discussion where the following questions were addressed:

- Observations: Changes in the physical and chemical environment? Do they really have significant impact on valuable marine life, or does resilience rule?
- While scientists objectively observe changes in the ecosystem, are politicians quietly waiting for the catastrophe to happen?
- Is it possible to detect ocean acidification traits from all other multiple stressors on the marine ecosystem?
- How do we find time to monitor changes in the ecosystem, in a scientific world where more time is spent on competition than on finding suitable indicators? will introduce and describe several aspects of the occurring changes in the biogeochemical processes and the marine ecosystems in the Arctic Ocean, and in the transition zones such as the Barents Sea and high north coastal systems.

Poster sessions:

The FRAM Science Days had two poster sessions where 29 posters were presented. The Award for best poster was an Ipad and was given to Allison Bailey (NPI) after a committee had made a selection.

Social event:

Day 1 evening: To achieve a relaxed atmosphere to stimulate cross-collaboration and fraternization among scientists we had a social event and dinner at Mack Brewery. The event was very successful and the participants appreciated the brewery tour and dinner at Ølhallen in a relaxed environment which spurred interesting and giving discussions.

Post-conference:

Science journalist Malin Avenius will write an article summarizing the main science high-lights presented at the conference. The summary article is planned to be published in the FRAM Report Series.

For the Management

Annual event presenting scientific results and high lights from the Flagship programmes.

Published Results/Planned Publications

Abstract collection from speakers and poster presentations.
The summary article is planned to be published in the FRAM Report Series.

Communicated Results

Science journalists at the conference: Ole Magnus Rapp (Aftenposten) and Malin Avenius (Swedish science journalist)

Interdisciplinary Cooperation

international speakers of all disciplines and the very nature of the Science Days are highly interdisciplinary as can be viewed from the

program:

FRAM Science Days

Venue: Arktika Conference Centre, Fram Centre, Tromsø, Norway

Dates: Tuesday 10th-Wednesday 11th November 2015

“Multi-stressors in the Arctic Marine Ecosystem”

Tuesday 10th November

Registration and refreshments from 10:00, 2nd floor, Fram Centre

11:00- Welcome and Introduction to Fram Centre Flagship programmes – *Jo Aarseth, Fram Centre*

11:10- Overview and objectives of the conference – *Melissa Chierici, IMR, Tromsø*

Session I-“A changing Arctic system”(chair: Melissa Chierici)

11:30- Jacqueline M. Grebmeier (plenary), *UMCES, USA*

Multiple Environmental Stressors in a Changing Arctic Ocean

12:10- Helen Johnson, *University of Oxford, UK and University of Bergen*

Where the ice meets the ocean: ocean circulation and ice melt around Greenland

12:35- Mats Granskog, *NPI, Norway*

Changes in sunlight exposure in the Arctic Ocean – potential effects on biogeochemistry

13:10- **Lunch buffet**

14:00- Rolf Gradinger, *University of Alaska Fairbanks, USA and IMR*

Sea ice primary production in a changing Arctic

14:25- Tore Hattermann, *Akvaplan-niva*

The role of mesoscale ocean dynamics in Fram Strait for the sea ice-ocean ecosystem"

14:50- Hallvard Strøm, *Norwegian Polar Institute*

The importance of tidewater glaciers for marine mammals and seabirds

15.15- ***Coffee break***

15:45- Howard Browman, *Institute of Marine Research*

Applying organized skepticism to ocean acidification research, or some marine organisms will do just fine in a high CO₂ world

16:10- Short summary (Lis Jørgensen)

16:30- Poster session with refreshments

18:30- Dinner and Social event at the Mack beer brewery! Tour, tasting and tapas!

Wednesday 11th November

Session II- Ecosystem changes (chair: Laura de Steur)

09:00- Raul Primicerio (plenary), UiT, Norway

Climate warming impact on Barents Sea ecosystem vulnerability

09:40 - Lis L. Jørgensen, IMR, Norway

Multiple impacts on Arctic benthic communities: order in chaos, or chaos in order

10:05- Hartvig Christie, NIVA, Norway

Climate and crab predation cause large scale changes in the kelp forest – sea urchin system

10:30- Coffee

11:00- Catriona Clemmesen-Bockelmann, GEOMAR, Germany

Effects of ocean acidification on Atlantic cod

11:25- Randi Ingvaldsen, IMR, Norway

Future fisheries in a changing Arctic Ocean?

11:50- Janne Søreide, UNIS, Svalbard, Norway

Fate of the key Arctic copepod *Calanus glacialis* in a changing environment

12:15- **Lunch buffet**

Session III-Detecting change and possible mitigation (chair Lis L Jørgensen)

13:10- *Kick-off introduction to discussion session on ways to detect “a changing Arctic Ocean”*

13:30- Panel and plenary discussion session. *Discussion topics:*

- *Observations: Changes in the physical and chemical environment? Do they really have significant impact on valuable marine life, or does resilience rule?*
- *While scientists objectively observe changes in the ecosystem, are politicians quietly waiting for the catastrophe to happen?*
- *Is it possible to detect ocean acidification traits from all other multiple stressors on the marine ecosystem?*
- *How do we find time to monitor changes in the ecosystem, in a scientific world where more time is spent on competition than on finding suitable indicators?*

14:15- Summary and closing remarks (Melissa Chierici)

14:30 -Poster session and coffee

16:00 End of conference

Budget in accordance to results

Yes, costs for travel of speakers, young scientists awards, poster price, rent of conference room, lunch, dinner and social event.

Could results from the project be subject for any commercial utilization

No

Conclusions

Feedback on site from participants and speakers told on a very successful 1st FRAM Science Days. Hopefully arranged of other flagships next year.