

Project information

Project title

Arctic and boreal benthic process and function

Year

2012/2013

Project leader

Lis Lindal Jørgensen, IMR

Participants

- Arne Bjørge (IMR) – Program leader
- Lis Lindal Jørgensen (IMR) – Project leader
- Tove Gabrielsen (UNIS)
- Jørgen Berge (UiTø/UNIS)
- Paul Renaud (UNIS/APN)
- Therese Løkken (UNIS/UiTø)
- Knut Sivertsen (FiHø)
- Raymond Bannester (IMR)
- Stein Fredriksen (UiO)
- Einar Nielsen (UiTø)
- Olga Plubina (MMBI, Russia)

Flagship

Fjord and Coast, Theme: Structure, function and change in Arctic and boreal fjord ecosystems

Funding Source

Ministry of Fisheries and Coastal Affairs (IMR): NOK 900 000 (intended Fram Centre research).

Summary of Results

- Project meeting at UNIS 8-10 Mai for discussing the surveys and data collection of the year.
- 6-10 Aug survey with the R/V Arctic Explorer (UNIS) in coastal-near areas of the Isfjord.
- 17-23 Aug survey with the R/V Johan Hjort (IMR) in the Is- and Billefjord system.

The surveys included sampling and **quantitative identification of groups/taxa/species** in the boreal and arctic parts of the fjords, and sampling of **isotop- and stomach analyses**. The combined use of stable-carbon and stable-nitrogen isotope measurements of the marine organisms, together with more conventional dietary approaches and mapping of the species composition, can thus be used to provide information on trophic relationships and feeding ecology, including spatial use of habitat.

The pelagic “Harstad” trawl was equipped with a **Deep-Vission camera** to explore if the numbers of individuals count by photos match the number captured in the cod end, the overlap between juvenile fish and their predators and/or prey, and the fine-scale spatial distribution and patchiness of juvenile fish.

Published Results/Planned Publications

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Communicated Results

There will be held data processing and publication workshops in 2013.

Interdisciplinary Cooperation

This project was originally a part of (=wp2) the FRAM project: Benthic biodiversity and ecosystem function in Svalbard and North Norway. But as the resources was very limited for the other part (=wp1) of this FRAM project, the benefits between the two wp's has not been optimal.

Budget in accordance to results

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Could results from the project be subject for any commercial utilization

No

Conclusions

The future perspectives (in 2013) are to process the data and the samples and start up the publications.

There is a need to combine this investigation (WP 2) mainly focusing on benthic epifauna and pelagic fauna with results from infaunal studies (WP 1). This will only be possible with an appropriate financial support of WP 1.