Project information

Keywords
Diesel spill, blue mussel, PAH, effect
Project title
Biological effects of the Skjervøy diesel oil spill – phase II of the sub-Arctic case study
Year
2015
Project leader
Kjetil Sagerup, Akvaplan-niva
Participants

Jasmine Nahrgang (UiT), Ekaterina Storhaug (Akvaplan-niva/UiT), Marianne Frantzen (Akvaplan-niva) and Perrine Geraudie (Akvaplan-niva).

Flagship
MIKON
Funding Source

The flagship + own funding

Summary of Results

This project is a follow up of the diesel spill on Skjervøy the 14th of December 2013. The project study long term effect on growth and reproduction of diesel exposed blue mussels. The mussels were measured, individually marked and caged in March 2015. Thereafter, growth through the season has been measured in exposed mussels, control mussels and clean transplanted mussels in June, August, October and the experiment will be terminated in December 2015. In addition, samples for biomarkers and physiology was collected June and August and will be collected in December.

For the Management

This study will generate data on long term effect of diesel spill. These data is important as a ban of heavy fuel oil gradually have been introduced in Svalbard with full effect 1. January 2015, and similar regulations are discussed in IMO and Polar Code regulation of shipping. We therefore expect that marine diesel will be more important as ship fuel in years to come.

Published Results/Planned Publications

One peer-reviewed publication in 2015 in collaboration with the flagship Arctic Ocean and the A-lex project:

- Larsen, L-H., B. Kvamstad-Lervold, K. Sagerup, V. Gribkovskaia, A. Bambulyak, R. Rautio & T. E. Berg (in press): Technological and environmental challenges of Arctic shipping: - A case study of a fictional voyage in the Arctic. Journal: Polar Research.

Two publication in prep and planned:

- Storhaug Ekaterina, Sagerup Kjetil, Geraudie Perrine, Nahrgang Jasmine, Frantzen Marianne and Larsen Lars-Henrik (in prep) Biological effects of the Skjervøy diesel oil spill: a sub-Arctic real case study.

- Storhaug et al. (planned) The long term effect of a diesel spill on blue mussel growth and reproduction.

Communicated Results

Abstract and oral presentation: The Skjervøy diesel spill – a case study. Norske havforskers forening annual meeting, Bodø 12-14. October 2015.

Teaching: Nord-Troms videregående skole, 21. October 2015.

Interdisciplinary Cooperation

No

Budget in accordance to results

No

Could results from the project be subject for any commercial utilization

No

Conclusions

The project is not finished yet. These results are integrated in the PhD-project for Ekaterina Storhaug (UiT). She is in a maternally leave (September 2015 – 2016). The scientific publication from the project is therefore delayed.