

information

Project title

Case Orrefjell

Year

2018

Project leader

Louise Kiel Jensen

Geographical localization of the research project in decimal degrees (max 5 per project, ex. 70,662°N and 23,707°E)

68.893085°N 018.099117°E

Participants

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Flagship

Hazardous Substances

Funding Source

434914 nok from the Fram Centre.

High in-kind contributions

Summary of Results

Case Orrefjell has run two years

WP1: Activity concentrations and transfer to biota

In September 2016, NMBU, NGU and NRPA scientists were on fieldwork to the area. An additional field-work was conducted in September 2017 to expand on the material and introduce a master student to the methods.

During the fieldwork in 2016, nine stations were sampled – in 2017, 2 were revisited and 3 introduced. The main compartments of interest were soil, berries, foraging plants and earthworms. The samples from 2016 are analysed for NORM and other relevant elements while 2017 samples is on the way.

One publication is in preparation.

WP 2: Mapping the radon concentrations in the Salangen Valley

In October 2016, alpha track detector was distributed to all the students in “our” class and to all households in the Øvre Salangen valley. Most were returned to NRPA and are now analysed. The data from radon will be used to improve the national susceptibility map for radon.

WP 3: The impact of knowledge about uranium in Orrefjell on inhabitants’ habits and awareness

NORUT and NRPA have developed a questionnaire to survey inhabitants’ knowledge, awareness and concern related to radon in Salangen. The questionnaire had a high respond rate and the replies from 200 people are now being analysed.

WP4: In September, we hosted an information meeting for the public in Salangen. The meeting was streamed: http://www.sn-produksjon.no/webtv/index.php?main_page=document_general_info&cPath=4_13&products_id=2197

Highlights:

- the inter-disciplinary corporation is beneficial and the local anchoring of the project, achieved by including a high school class and their very engaged teachers, have provided a special dynamic to the project which is not normally seen.
- Improvement of the national susceptibility map for radon

Master and PhD-students involved in the project

Master: a master student is using the material for running the ERICA risk assessment tool. This work may be prepared for a publication after May 2018.

For the Management

WP3 in this project are concerning the awareness of the public and the questionnaire is designed so the results may be compared to the results from national surveys on the same topics.

The results were communicated to the local authorities in Sjøvegan.

The results from the questionnaire provided the management with a good indication on what information is received by the public and guidance to improve the communication.

Improvement of the national susceptibility map

Published Results/Planned Publications

Poster: Louise Kiel Jensen, Anne Katrine Normann, Robin Watson, Vikas C. Baranwal, Agnes Raaness, Jan Steinar Rønning, Frøydis Meen Wærsted, Øyvind Aas-Hansen, Trine Kolstad, Håvard Thørring, Ingvild Engen Finne, Lindis Skipperud. Case Orrefjell. Poster presented at the 2017 International Conference on Arctic Science: Bringing Knowledge to Action, Arctic Monitoring and Assessment Programme, April 24-27, 2017 Reston, Virginia

One publication on the transfer data in preparation.

Conference participation: Abstract submitted to IPRA 2018 (<https://irpa2018europe.com/>)

Master: a master student is using the material for running the ERICA risk assessment tool. This work may be prepared for a publication after May 2018.

Popular science paper: in preparation for the Fram forum

Peer reviewed: One paper for submission to Environmental radioactivity in preparation.

Communicated Results

The project was presented by a video interview and a written interview in the local news channel in Sjøvegan, Salangen Nyheter.

A post on Framsenderet.no was further produced based on a video interview and a web based news update on Salangen Nyheter

Public meeting was streamed: http://www.sn-produksjon.no/webtv/index.php?main_page=document_general_info&cPath=4_13&products_id=2197

Interdisciplinary Cooperation

The project is highly inter-disciplinary as both natural and social scientists are involved in the project. This approach have broadened the project and is possible because the project is limited in geography and not research discipline.

Could results from the project be subject for any commercial utilization

No

Conclusions

By combining scientists from various fields into one project and have a strong involvement from local residents, we evaluated Orrefjell from many perspectives. In addition to strengthen specific scientific knowledge, all learned something related to, but outside their usual subjects.