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**SYSSEMESTEREN
PÅ SVALBARD**

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21.03.2022

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11.03.2022

Reply to research application – Variability of arctic river thermal regimes in a changing climate - Hornsund - IG PAS - 2022 - RiS-ID 11937 A1

We refer to research application dated 11.03.2022 regarding fieldwork on arctic river systems in Hornsund area in the period 18.06.-02.07.2022.

Fieldwork description

Fieldwork will cover equipment deployment, including water temperature and water level loggers in the main streams along with tracing experiments using fluorometer and rhodamine WT. Therefore, soil moisture and ground temperature will be measured with TMS-4 loggers deployed in the catchment. UAV campaign will contribute to the monitoring of a surface thermal regime in terms of the discharge of groundwater, snow- and ice- meltwater, permafrost thawing and precipitation. For that purpose one thermal camera will be mounted in the catchment to obtain continuous data on thermal conditions in the catchment.

This is planned to be done on locations Ariebekken, Revelva and Fuglebekken catchments.



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Drone

One UAV campaign in each of three catchments is planned in order to analyse spatial variability of surface temperature. During the campaign, Phantom 4 Pro accompanied with thermal camera will be used (490x490x190 mm, 1390 g). The flight will last approximately 2 hours, depending on the weather conditions.

Installations

Installations applied for:

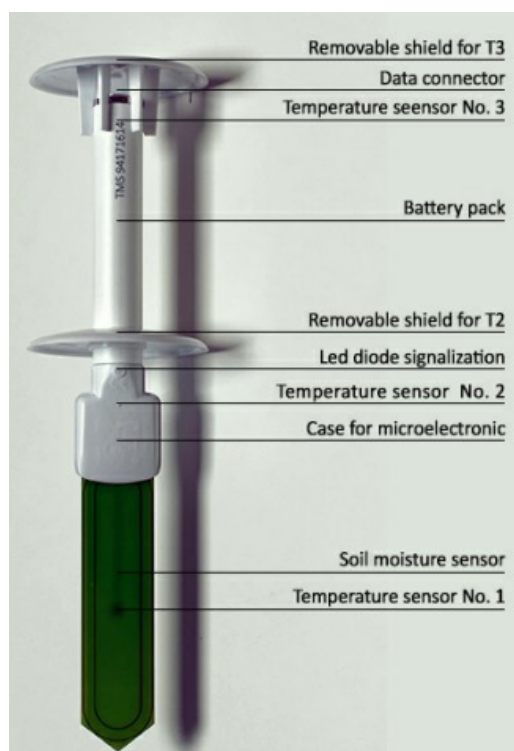
- In total seven TD-Diver hydrological instruments in different river catchments. Dimensions:

L: 110 cm W: 22 cm H: 22 cm



- In total three TMS4 soil moisture and soil temperature dataloggers

L: 5 cm W: 5 cm H: 29 cm



- C3 submersible fluorometer and rhodamine dye

L: 10 cm W: 10 cm H: 23 cm

- TIR Camera

L: 97 cm W: 184 cm H: 200 cm



Regulations

Regulations on the national parks Sør-Spitsbergen, Forlandet and Nordvest-Spitsbergen, on the nature reserves Nordaust-Svalbard and Sørøst-Svalbard, and on the nature reserves for birds on Svalbard.

Section 3. Purpose of the national parks

The purpose of protecting the areas is to maintain large, continuous and largely undisturbed areas of natural environment on land and in the sea with intact habitats, ecosystems, species, natural ecological processes, landscapes, cultural heritage and cultural environments. The areas are to be maintained as reference areas for research purposes and for opportunities to experience Svalbard's natural and cultural heritage.

Sør-Spitsbergen national park is particularly intended to safeguard:

- an area with a spectacular landscape including characteristic jagged alpine mountain formations, coastal plains and glaciers
- several localities of varying sizes with cliff-nesting seabird colonies, breeding and wintering areas for ducks (particularly common eider) and important areas of polar bear habitat
- important structures and sites and cultural environments with traces of earlier whaling activities, overwintering hunters and trappers, mining activities, tourism, research and the Second World War.

Section 6. Protection against development and disturbance

The areas above are protected against all forms of development, including the construction of buildings and installations of all types, mining, oil exploration and production, extraction of deposits and other activities that involve physical disturbance of the terrain or disturbance of the natural environment.

Section 11. Exemptions

The Governor may permit: d) scientific studies, provided that these will not be contrary to the purpose of the national park



The Governor's considerations

The catchments of Ariebekken, Revelva and Fuglebekken in area of Hornsund are within Sør-Spitsbergen national park and the regulations relating to the national parks Sør-Spitsbergen, Forlandet and Nordvest-Spitsbergen, on the nature reserves Nordaust-Svalbard and Sørøst-Svalbard, and on the nature reserves for birds on Svalbard comes to an act.

According to the regulations relating to Sør-Spitsbergen section 11, letter d, the Governor may grant permission for scientific purposes as long as this is not in conflict with the purpose of the national park. This does not necessarily mean that permission is given. Generally, fieldwork should be carried out outside protected areas. In this particular case, the Governor must consider if the activity is in conflict with the purpose of Sør-Spitsbergen national park.

Installations applied for include seven TD-Diver hydrological instruments, three TMS4 soil moisture and soil temperature dataloggers, one submersible fluorometer and rhodamine dye and one tripod with camera. The installations are planned to be set up in 18.06.2022 and removed by 02.07.2022. The installations are considered to need special permission according to the regulations relating to Sør-Spitsbergen national park. The Governor consider the installations as reversible, temporary and with a minimal effect on the landscape and that permission can be given, cf. section 11 d. It is important that all installations are secured properly for humans and wildlife and removed by the end of the fieldwork period. The installations must be marked with the owner's name, institution, contact information, RiS-ID, date of deployment and retrieval.

Use of UAV does not need special permission. Please be aware of section 5 and 30 in the Svalbard Environmental Protection Act due to use of UAV and that it is forbidden to disturb wildlife.

The purpose of the activity is scientific, where the activity takes place from the Polish Polar station in Hornsund where research is well established. The results from the fieldwork may be of importance for the management authorities. By following the conditions set to the permission, the Governor consider the fieldwork applied for is not in conflict with the purpose of the national park and will not affect the conservation values.

The Governor's decision

The Governor of Svalbard grants the Institute of Geophysics, Polish Academy of Sciences att. Marta Majerska permission to conduct fieldwork included installations in Ariebekken, Revelva and Fuglebekken catchments in the period 18.06.-02.07.2022 as described in the application.

The Governor's permission is granted on the following conditions:

- This permission is only valid for the people included in the project.
- The installations must be marked with the owner's name, institution, contact information, RiS-ID, date of deployment and retrieval.
- The installations shall be secured properly for humans, traffic and wildlife.
- All installations must be removed at end of project period, by 02.07.2022.
- This permission must be brought along during the fieldwork.
- All equipment and all waste items are to be removed and brought back. Garbage shall not be burned, except clean untreated wood.
- The project shall submit a report from the fieldwork including photos of the drilling locations in the RiS database by 01.11.2022.



Please notice that your planned fieldwork outside Management Area 10 requires notification to the Governor according to the regulation FOR-1991-10-18-671 on travel in Svalbard (the Tourism Regulation). The notification form is available here: [Notification of travel plans for individual travellers; residents, visitors and researchers.](#)

Duty of care

The Governor calls attention to the duty of care in the Svalbard Environmental Protection Act § 5 first sentence, «Any person who is staying in or operates an undertaking in Svalbard shall show due consideration and exercise the caution required to avoid unnecessary damage or disturbance to the natural environment or cultural heritage. » The Governor requests particular attention regarding wildlife.

Right to complain

According to Norwegian law you are entitled to complain about the present decision. Written complaints must be submitted within three weeks of receiving this letter. The complaint must be submitted to the Governor.

Med hilsen

Kristin Heggelund
Head of Environment Protection

Ingvild Øyjordet
Adviser Nature Management

Dokumentet er godkjent elektronisk, og har derfor ikke håndskreven signatur

Kopimottakere:
Miljødirektoratet