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Att.: Willem van der Bilt

**SYSSEMESTEREN
PÅ SVALBARD**

Vår dato:
05.04.2022

Vår ref: (bes oppgitt ved svar)
22/00942-2

Deres dato:
24.02.2022

Reply to research application – Past constraints on a warmer and wetter future Arctic climate - Wijdefjorden - UiB - 2022 - RiS-ID 11689 A2

We refer to research application dated 24.02.2022 regarding fieldwork on sediment and vegetation sampling at location in area Wijdefjorden and Vesle Russebustraumen in the period 26.07.-10.08.2022.

Fieldwork description

We will extract lake sediment sequences from a series of lake basins and use these as continuous archives of past changes in hydroclimate, temperature variability, glacier change, and landscape development.

Our sites of interest are primarily located along the NE shore of Wijdefjord, either near Laksjøen, Danielodden, or Ringhorndalen (in Indre Wijdefjorden National Park), but also potentially W off Breibogen, and time permitting - Lågøya. During our stay, we will use a chartered sailing vessel (Arctic Ice from Boreal yachting) as our base to minimize exposure to polar bears and our impact on the landscape. While we will not use motorized vehicles on land, some of our equipment may be charged (on-board) using a gasoline-powered generator. Other chemicals will be used in a field lab for sampling: these comprise small volumes of standard lab chemicals like ethanol, a 5% chlorine solution (bleach), and 1M NaOH. Our team will comply with the stringent health and safety regulations for fieldwork from each involved institute: all members have extensive experience carrying out fieldwork in the Arctic, including rifle safety. The latter, as well as other essential safety equipment such as VHF radios, in-reach systems, and Iridium phones are available through the Universities of Bergen and Tromsø. In addition to lake sediment coring, we also intend to carry out geophysical surveys using either CHIRP or Ground Penetrating Radar (GPR): neither of these instruments operate at frequencies that may disturb wildlife. Finally, we will stringently apply the seven "leave no trace" principles to minimize our impact.

Flora

We will collect leaf material (so will not destroy plants) from all plants growing in the studied catchments for subsequent (e.g. isotopes and DNA) analysis for the purpose of validating reconstructions.

Drone

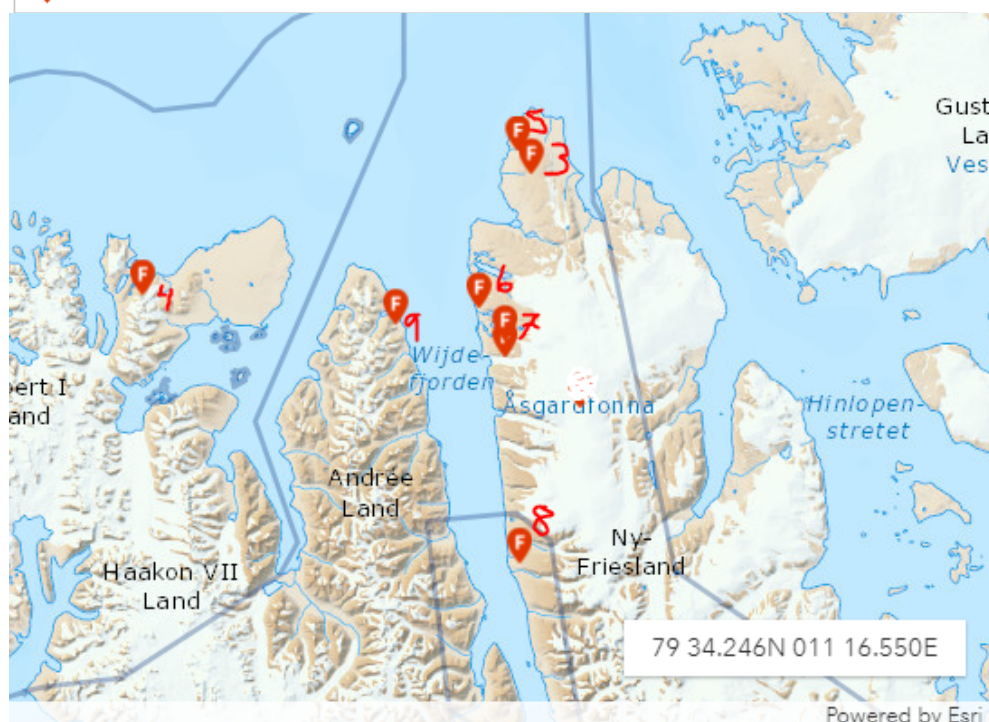
Licensed staff will acquire drone imagery for outreach purposes, using a 249 gram DJI Mavic Mini for short forays near people and a 895 gram DJI Mavic Pro for longer flights away from our group. Pilots will comply with all requirements stipulated on the sysselmesteren website.

Willem van der Bilt informs by email 17.03.2022 additional information to planned sampling of sediments and plant material after question from the Governor:

This is a question that will largely depend on the success (or lack thereof) of the planned field campaign, and the vegetation we may encounter in the targeted catchments (unknown now), but I can elucidate a bit: the sediments we extract are taken as cores from each lake – basically 9 to 11 cm wide and 3 to 5 m long plastic tubes drilled into the mud that accumulates at the bottom. From each lake, we will take two of these cores. Assuming we will target max. 5 lakes (again based on previous experience), this would mean a total of 10 records. As for the plant material – we typically sample the leaves (as we analyze fat molecules from these that end up in the sediment archives) from abundant (thus most likely to end up in the lakes) plants like Salix or Betula.

Exact fieldwork locations are given 22.03.2022 by email and update in the RiS-database:

F3	26 JUL 2022	09 AUG 2022	ASPIRE PASTFACT PolarCH4i... (no station)	▼
F4	28 JUL 2022	29 JUL 2022	ASPIRE PASTFACT PolarCH4i... (no station)	▼
F5	29 JUL 2022	30 JUL 2022	ASPIRE PASTFACT PolarCH4i... (no station)	▼
F6	30 JUL 2022	02 AUG 2022	ASPIRE PASTFACT PolarCH4i... (no station)	▼
F7	02 AUG 2022	04 AUG 2022	ASPIRE PASTFACT PolarCH4i... (no station)	▼
F8	04 AUG 2022	05 AUG 2022	ASPIRE PASTFACT PolarCH4i... (no station)	▼
F9	06 AUG 2022	07 AUG 2022	ASPIRE PASTFACT PolarCH4i... (no station)	▼



Fieldwork locations. The number is inserted by the Governor and fieldwork locations from 2021 are removed.



Regulations

Regulations relating to protection of Indre Wijdefjorden national park FOR-2005-09-09-1046

Section 4

2.1 Flora is protected against damage and destruction of any kind that is not due to permitted traffic.

Section 6

Exemptions/permissions

The management authority may dispense from the protection provisions in section 4 for scientific or special reasons.

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

Nordvest-Spitsbergen national park is particularly intended to safeguard:

- an area with a spectacular landscape including characteristic jagged (alpine) mountain formations, islands and bays, the largest strandflat in Svalbard (Reinsdyrsflya) and a number of glaciers of varying sizes
- areas of geological interest, particularly the area near Bockfjorden where there are thermal springs with lime deposits and remains of extinct volcanoes
- a unique botanical locality near the hot springs in the Bockfjorden area
- several localities of varying sizes with cliff-nesting seabird colonies and breeding grounds for ducks, geese and waders
- important structures and sites and cultural environments with traces of earlier whaling activities, overwintering hunters and trappers, North Pole expeditions, 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 9. Protection of the flora

Plants and fossils shall not be removed, and are protected against all types of damage or disturbance not caused by normal access or passage.

It is prohibited to introduce new species of plants.

Section 11. Exemptions

The Governor may permit:

- d) scientific studies, provided that these will not be contrary to the purpose of the national park

Act of 15 June 2001 No.79 Relating to the Protection of the Environment in Svalbard

Section 28 (what protection of the flora involves)

No person may damage or remove flora.

Damage resulting from lawful access and passage or approved activities is excepted from the provision of the first paragraph.

Section 29 (collection for scientific or private use)

The collection of fungi and seaweed for private use is permitted. The collection of flora for research or teaching purposes is permitted where this does not make significant inroads into the local populations of the flora involved.

Section 37 (exemptions)

Even if permission may not be granted for a particular undertaking under this chapter, the Governor may grant exemptions from the provisions of this chapter for scientific purposes or when other special reasons so indicate.

Section 57 (requirement for permits outside land-use planning areas and within land-use planning areas where there is no approved land-use plan)

A permit is required from Svalbard's environmental protection authorities for the following undertakings outside land-use planning areas and within land-use planning areas where there is no approved land-use plan:

1. physical alteration of the terrain

The Governor's considerations

The fieldwork applied for include sampling of sediment cores and leaves from flora on different locations in Wijdefjorden, where one lies in Indre Wijdefjorden nationalpark, and one location in Nordvest-Spitsbergen national park. For the location in Indre Wijdefjorden national park, protection regulations on Indre Wijdefjorden national park comes to an act. For sampling locations outside the national park, the Svalbard Environmental Protection Act comes to an act. For the location in Nordvest-Spitsbergen national park, protection 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 comes to an act.

According to the regulations, the Governor may grant permission for scientific purposes as long as this is not in conflict with the purpose of the national parks or the Svalbard Environmental Protection Act. 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 the protection areas and the Svalbard Environmental Protection Act.

The sediment cores applied for are 3-5m long and 9-11cm wide, totally 10 records from 5 different lakes. The Governor consider that the sediment cores need a permission, cf. regulations relating to Indre Wijdefjorden national park, Nordvest-Spitsbergen national park and Svalbard Environmental Protection Act. The coring equipment is manually operated, and will as we interpret the application, not cause disturbance of the flora or fauna. On this basis we conclude that permission can be given to extraction of sediment samples. 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 or the



Svalbard Environmental Protection Act and will not affect the conservation values. We assume that all traffic in the purpose of sampling, and the choice of specific coring location will be made carefully to avoid any negative impact on resident flora or fauna, cf. the Act section 25. The sampling of leaves is very modest and the Governor consider that this will not impact the flora and not need a special permission according to the regulations relating to the Svalbard Environmental Protection Act, nor the regulations relating to the protection of Indre Wijdefjorden national park or the regulations relating to protection of Nordvest-Spitsbergen national park.

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

The Governor's decision

The Governor of Svalbard grants the University of Bergen att. Willem van der Bilt permission to sample sediment cores as described in the application in five lakes given in the map in the application in the period 26.07.-10.08.2022.

The permission is given under the provisions of the Regulations relating to Indre Wijdefjorden national park section 6, regulations relation to the national parks Sør-Spitsbergen, Forlandet and Nordvest-Spitsbergen and the nature reserves Nordaust-Svalbard and Søraust-Svalbard and the nature reserves for birds section 11 d, and the Svalbard Environmental Protection Act section 57 a.

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

- This permission is only valid for the people included in the project.
- 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 included chosen locations in the RiS database by 01.11.2022

The Governor of Svalbard has concluded that sampling of leaves as described does not require special permission according to the Act of 15 June 2001 No. 79 Relating to the Protection of the Environment in Svalbard (the Svalbard Environmental Protection Act), the regulations relating to protection of Indre Wijdefjorden national park or the regulations relating to Nordvest-Spitsbergen national park.

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.

Best regards

Kristin Heggelund
Head of Environment Protection

Ingvild Øyjordet
Adviser Nature Management

Dokumentet er godkjent elektronisk, og har derfor ikke håndskreven signatur