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Att. Birgit Sattler

## Permit to conduct Scientific Sampling in Jan Mayen Nature Reserve

The County Governor of Nordland refers to Your application dated 8<sup>th</sup> of July 2021 concerning planned research on microplastic pollution in the Arctic.

The county governor of Nordland is the environmental protection authority for Jan Mayen and manages the protection regulations for Jan Mayen nature reserve. The whole of the island, with two minor exemptions, is protected by the regulations for the nature reserve. The protection provisions can be found at [www.lovdato.no](http://www.lovdato.no) (only in Norwegian). A short information about the nature reserve is available in English here [http://jan.mayen.no/wp-content/uploads/2018/01/ENG\\_info-summary-Jan-Mayen-naturreserve-2018.pdf](http://jan.mayen.no/wp-content/uploads/2018/01/ENG_info-summary-Jan-Mayen-naturreserve-2018.pdf)

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### Permit to conduct scientific sampling

*The University of Innsbruck att./ Birgit Sattler are granted exemption from the regulations of Jan Mayen nature reserve for sampling of loose sediments and ice. The decision is made with the legal authority of § 6 in the protection regulation of Jan Mayen Nature Reserve (verneforskriften).*

The exemption granted is subject to compliance with the following conditions:

- The permit is valid for the year of 2021.
- Sediments can be sampled up to a total amount of one (1) kilogram wet weight.
- The permit is only valid for sampling of loose sediments (e.g. sand, gravel). Hard sediments (e.g. rock walls, boulders) should under no circumstance be broken.
- No sampling equipment or other remains must be left in the field after the end of the fieldwork.
- There are many cultural heritage sites and artefacts on the island, and you are obliged to make sure you do not remove or alter any remains of human activity when applying your equipment. Information of known cultural heritage is available at Jan Mayen station.

*cont. on next page.*



- The sampling can be executed by personnel from The Arctic Global Expedition att./Dario Schwoerer as well as students belonging to the University of Innsbruck under the supervision of Birgit Sattler.
- The sampling should under no circumstance cause disturbance and/or damage of any kind to the local vegetation or wildlife.

*To strengthen the knowledgebase for the management of Jan Mayen Nature Reserve, we ask that it is sent a copy of any scientific reports and articles made on the background of the sampled data to the County Governor of Nordland and Jan Mayen station.*

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### **Case information**

Appeals can be directed to the Norwegian Environment Agency. The appeal deadline is three weeks from the date of this decision. Any appeal must be submitted through the County Governor of Nordland.

### **You need permission to visit Jan Mayen**

We will remind you that in order to visit Jan Mayen you need to obtain a permission from the Norwegian authorities prior to arrival; this is regulated through a Norwegian regulation regarding non-Norwegian citizens entry of Jan Mayen («Forskrift om utlendingers adgang til Jan Mayen»), of June 1962. Permission to visit Jan Mayen for non-Norwegian citizens can be granted as follows:

- Up to 24 hours, From the Station Commander of Jan Mayen.
- Up to one week from the Chief of Police in Nordland.
- More than a week from the Norwegian Ministry of Justice and Public Security.

Please note that Jan Mayen does not have the equipment or manpower to deal with search or rescue operations and it is extremely difficult and time consuming to send personnel from the mainland. We therefore ask that all activities are carried out in line with the station manager's recommendations.

Jan Mayen is also home to several both new and old cultural heritage artifacts. Several have been restored or maintained and are subsequently in good condition. Most, however, are in poor condition and many are on the verge of disappearing. These are not to be mistaken for rubbish and must be left untouched. Excavation and displacement of cultural heritage artifacts is prohibited by the regulation § 4, 1.2.

### **Legal basis of the decision**

The Jan Mayen nature reserve was established by royal decree on 19<sup>th</sup> of November 2010. The protective regulation is managed by the Country Governor of Nordland. The full regulation is available in Norwegian at [www.lovdata.no](http://www.lovdata.no) ("Forskrift om fredning av Jan Mayen naturreservat", FOR-2010-11-19-1456). The following provisions are relevant for the case:

With reference to § 3 of the protective regulation, the objective of the Jan Mayen nature reserve is to conserve a near-pristine arctic island and its adjacent sea areas including the ocean floor, with a distinctive landscape, active volcanic system, special flora and fauna and cultural remains, including securing:

- The island's grand and unique landscape



- The island's distinctive volcanic rock types and landforms
- The island as a very important habitat for seabirds
- The close relationship between life in the sea and on land
- The distinctive ecology of isolated islands
- The historical perspective that cultural heritage artifacts from all major eras in Jan Mayen's history represent
- The island and adjacent marine areas as a reference area for research.

Activities with the potential to impact the landscape, natural environment or cultural heritage artifacts in the reserve are prohibited according to the Jan Mayen nature reserve regulation § 4, 1.1.

According to the regulations for the nature reserve, the County Governor can make exemptions from the regulations e.g. when it is called for by scientific or special circumstances, ref. § 6 of the regulation.

The cross-sectoral legal principles of environmental management stated in the Nature Diversity Act ("*Naturmangfoldloven*") §§ 8 – 12 are used as guidelines for our decision. Thereof the principle of precaution and the principle of accumulated environmental impact.

### **Background**

Birgit Sattler have applied for permission to undertake scientific sampling of sea water, ice, snow, fresh water, sediments, and air in small amounts in Jan Mayen Nature Reserve. The application is handed in on behalf of members of the Arctic Global Climate Expedition att. Dario Shwoerer which is currently undertaking a sailing expedition in the Northern parts of the Atlantic Ocean. Belonging to the expedition are two master students belonging to the University of Innsbruck and under the supervision of Birgit Sattler.

The scientific aim of the research is to assess the presence of microplastic pollution in the high Arctic. Data obtained from Jan Mayen are (e.g.) planned to be compared to similar data sampled on Svalbard, Greenland, and Iceland to assess differences in microplastic pollution in habitats with different levels of anthropogenic impact. An extended description of the project and research aims are to be found together with the application.

The sampling is planned to take place along five points along a transect up towards the mountain Beerenberg. Water will be filtered for microplastics on sight and snow and ice will be melted down in small amounts before filtering. Air will be sampled by a handheld, battery-driven, active air-sampler of the type *Sartorius MD8 airport*. Sediments will be collected with spoons and in the volume of up to "several grams". Extended description was given as added information to the application and can be found there.

### **Evaluation and basis of the decision**

The sampling of sea- and freshwater, air and snow are, in the amounts and with the equipment/methods specified in the application, not covered by the provisions in the protective regulation. Therefore, an application is not necessary and only the sampling of sediments and ice are mentioned in the permit and subject to the evaluation as follows.

Sampling of sediments and ice have the potential of altering the natural landscape and are therefore prohibited by the protective regulation, hence a permission would be required. The County Governor can provide exemptions from the protective regulation for scientific purposes. In such cases, the scientific and societal benefits are to be measured up to the potential damage and/or



disturbance of the nature values and purposes of the conservation. Guidelines in the management plan of Jan Mayen nature reserve states that applications for e.g. disembarking and camping for the purpose of scientific research should be considered only when originated from universities, research institutions or similar establishments. Expeditions that first and foremost bears the mark of e.g. adventure or communications purposes, would not come under consideration. The County Governor finds that a similar approach is desirable for the evaluation of applications regarding sampling permits. This will help assure professionalism and competence both in terms of the execution of the fieldwork and the later beneficial outcomes that must be expected to justify the intervention of the natural environment. For any application given, the potential negative impact on the natural environment should be considered not only for the specific case, but also be evaluated in the context of other ongoing activity as to assess the potential of accumulated pressure (ref. the legal principles of environmental management, *nml.* §§ 8-12). The management authority should also consider the potential preceding effects any exemptions might have in the future. The County Governor have concurrently received several inquiries of possible exemptions from the protective regulations on Jan Mayen, and we are aware of a rising interest of the Arctic for both industrial, recreational, and scientific purposes. Therefore, we see the need of being somewhat restrictive on what applications to consider as for having a framework for the future management of Jan Mayen.

The County Governor are in doubt of whether the supportive connection the AGC-Expedition have to the University of Innsbruck is sufficient to fulfil the academic requirements desired for obtaining permissions of sampling in the nature reserve. However, in this specific case the extent of the applied sampling and potential environmental impact are so small that we find it possible to take the application under consideration without settling on a final decision of this topic. Here we choose also to emphasize that the personnel that are undertaking the sampling are affiliated as academic students at the University of Innsbruck and are under supervision of an established researcher employed at the same establishment.

Guidelines from the management plan also states that more research, surveillance, and mapping are desirable on Jan Mayen if it does not inflict negative consequences on the natural environment, cultural heritage, or landscape. The sampling applied for are, due to its small extent and relatively non-invasive method, only likely to inflict negligible impact on the natural environment. The scientific benefits of the sampling seem therefore to outweigh eventual negative consequences. On this basis the County Governor approves the application under the conditions given.

Yours sincerely

Mia Marthinus Husdal (o.a)  
underdirektør / *deputy director*

Magne Hestem  
rådgiver / *advisor*

*This document is electronic approved*

Enclosure:

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Jan Mayen Station Commander