



University of Groningen

**SYSSELMANNEN  
PÅ SVALBARD**

Att.: Maarten Loonen

**THE GOVERNOR OF SVALBARD  
ГУБЕРНАТОР СВАЛБАРДА**

Our date:  
17.06.2021

Our reference  
16/00600-21

Your date:  
05.05.2021

## **Reply to research application - RiS-ID 6359 - Barnacle goose ecology - interactions with a changing environment**

The Governor refer to your application dated 05.05.2021, RiS-ID 6359, concerning your project "*Barnacle goose ecology: Interactions with a changing environment*". We also refer to your letter to the Governor dated 03.05.2021, and to our e-mail correspondence from 7<sup>th</sup> of June to 9<sup>th</sup> of June where you give more detailed information about the project.

We have also received a separate application from Kings Bay, dated 4<sup>th</sup> of June 2021, concerning the part of this project implicating erection of 6 new long-term grazing enclosures (2m\*2m) around the lake Solvatnet in Ny-Ålesund together with marking a control area. The application from Kings Bay will for the record be processed as a separate case, and thus the issues concerning the land-use plan regulations applying the enclosure-installations are not processed here.

### **Application**

The aim of the scientific project is to monitor changes in the arctic ecosystem in which the key species is the barnacle goose. University of Groningen, by project owner Maarten J.J.E. Loonen, ask for permission to visit the protected areas in Kongsfjorden for barnacle goose nest surveys and studies of incubation behaviour, egg predation, hatching date and hatching success.

The application includes the following activities:

1. Visit the islands Storholmen and Prins Heinrichsøya (bird sanctuaries) in the period from 9 June until 15 August in total 20 times to read rings, retrieve geolocators, determine egg survival, breeding phenology, hatching success and predation with up to 4 people at once. Each visit will last up to 10 ten hours for Storholmen and 2 hours for Prins Heinrichsøya. As we read the detailed information given in the e-mail these visits partial overlaps with the 25 visits to each of these 2 islands granted Margje de Jong, RIS-ID 11237, for June and July 2021. It is though unclear for us to what extent the coordination of the two projects will reduce the total number of visits needed.
2. Visit all other islands in Kongsfjorden, including the bird sanctuaries 4 times to read rings, to retrieve geolocators and count moulting geese and goslings, landing with up to 3 people at once.



3. Place maximum 20 automatic wildlife camera's (14\*9\*6.5 cm) in the field during this summer to register predator activity and to monitor and read rings of geese and terns. Locations will be Prins Heinrichsøya, Storholmen, tundra around Ny-Ålesund, Knudsenheia, Gerdøya and Brandalslaguna (RIS 6359, 6360, 10042 (on snowbunting nests). These are extra cameras than those applied for in RIS 11237.
4. Capture and ring up to 70 arctic terns near Ny-Ålesund, on Prins Heinrichsøya and on Gerdøya with individual coded plastic rings, metal rings of Stavanger Museum. Apply 20 new geolocators to arctic terns (RIS 6360/ FOTS 16065, new FOTS applied for).
5. Make use of an observation hide during undisturbed observation of birds. The observation hide is 1.2 x 1.2 x 1.2 meter. The hide is placed in a position where the geese come on land. One person will sit in the hide to read rings through a telescope, while the other takes a better viewpoint at which there is no disturbance, but bears can be seen approaching the hide. The procedure takes a maximum of 5 hours and the hide will be put up at the start of the observation and taken down at the end.
6. Capture and measure barnacle geese during brood rearing. One catch during the moulting period is planned on Storholmen. The other catches will be outside the bird sanctuaries. All birds will be measured and weighted and geolocators will be retrieved (RIS 6359/FOTS 8765, 16065). According to the e-mail specifications the number of geese to be captured depends on the breeding success. Yearly catches in the period 1991-2020 are from 59 – 508.
7. Permission to collect small samples of vegetation, insects and lake plankton in the direct vicinity of Ny- Ålesund and to take the samples to the Netherlands for further analysis (RIS 10041, 10042 and 11461). Terrestrial insects will be caught in 5 pitfall traps.
8. Erect 6 new long term grazing enclosures (2x2 m2) on goose grazed vegetation around the lake Solvatnet in Ny-Ålesund together with marking a control area. All with permission of Kings Bay. Planned duration until 2041.

The field-locations are in within the areas of Ny Ålesund, including sites within Kongsfjorden bird reserve. Locations of fieldwork:



## Regulations

The Svalbard Environmental Protection Act of 15 June 2001 apply (the Act). According to the Act section 25 all species of flora and fauna, including their eggs, nests, and lairs, are protected. Section 37 give the Governor the authority to grant exemptions for scientific purposes or when other special reasons so indicate.

The field work is planned within Kongsfjorden bird reserve, where the *Regulation relating to the national parks South-Spitsbergen, Forlandet and North West - Spitsbergen, on the nature reserves North East-Svalbard and South East-Svalbard, and on the nature reserves for birds on Svalbard* as established in 1973 (the Regulation) apply:

### Section 30: Purpose

The purpose of protecting these areas is to safeguard important breeding areas and areas of habitat for birds, especially common eider and geese.

### Section 31: Prohibition against access and passage

All access and passage in the bird reserves, including at sea and landing of aircraft, is prohibited in the period 15 May- 15 August.

### Section 34: Protection of the fauna

Mammals and birds and their lairs and nests are protected against all types of damage or disturbance.



According to the Regulation section 37, the Governor may grant exemptions for scientific purposes as long as this is not contrary to the purpose of the bird reserves.

### **The Governor's considerations**

According to section 31 all access and passage in the bird reserves is prohibited in the period 15 May to 15 August. The bird reserves comprise the sea areas surrounding the islands within a distance of 300 metres from land or skerry at the lowest water level. According to section 37, letter a, the Governor may grant exemptions for scientific purposes as long as this is not contrary to the purpose of the bird reserves. This does not necessarily mean that exemption is given. Generally, fieldwork should be carried out outside protected areas. In this particular case, the Governor must consider if the activities are contrary to the purpose of Kongsfjorden bird reserve.

All three target species, the barnacle goose (*Branta leucopsis*), the arctic tern (*Sterna paradisaea*) and the snowbunting (*Plectrophenax nivalis*), are classified as viable (LC) on the Norwegian Red List for Species. None of the insect species found in Svalbard are red listed.

### Application point 1 and 2:

*-Visit the islands Storholmen and Prins Heinrichsøya (bird sanctuaries) in the period from 9 June until 15 August in total 20 times to read rings, retrieve geolocators, determine egg survival, breeding phenology, hatching success and predation with up to 4 people at once. Each visit will last up to 10 ten hours for Storholmen and 2 hours for Prins Heinrichsøya. As we read the detailed information given in the e-mail these visits partial overlaps with the 25 visits to each of these 2 islands granted Margje de Jong, RIS-ID 11237, for June and July 2021. It is though unclear for us to what extent the coordination of the two projects will reduce the total number of visits needed.*

*-Visit all other islands in Kongsfjorden, including the bird sanctuaries 4 times to read rings, to retrieve geolocators and count moulting geese and goslings, landing with up to 3 people at once.*

As we interpret the application the fieldwork includes 20 visits to Storholmen and 20 visits to Prins Heinrichsøya with a maximum of 4 people at once, and 4 visits to each of all the other islands in Kongsfjorden with a maximum of 3 people at once. The number of visits applied implicate roughly estimated a visit every third day during the season to both Storholmen and to Prins Heinrichsøya. The coordinating project, RIS-ID 11237, is already granted permission to visit each of these two islands with a maximum of 25 times each in June and July 2021. If these visits add to the 20 current visits applied for, which last up to 10 hours per visit, the bird reserves will be exposed to disturbance 45 days out of a total period of 96 days of traffic ban in June, July and August. This implies roughly up to 10 hours of disturbance every second day.

All kinds of traffic within the bird reserves in the period of traffic ban are considered to disturb and potentially stress the breeding birds and are in general undesirable. The frequency and the length of stays will influence the level of disturbance, with increasing risk of negative implications for breeding success such as nest abandonment or egg/nestling predation. The applier informs that there is no long-term negative trend for barnacle goose in the study area, and that the barnacle goose numbers are increasing. Although former surveys and long-term monitoring indicate that the main target specie barnacle geese is expected to be quite resistant to disturbance, the high level of disturbance planned for is not necessarily in accordance with the purpose of the traffic ban in the bird reserves. The islands are relatively small; Prins Heinrichøya approximately 100 m. wide and 400 m. long, Storholmen appr. 400 m. wide and 800 m long. Human traffic onto these islands has





therefore a great potential to disturb the whole island. It is also of relevance that the bird reserves are available nesting habitat for other species, which will be equally exposed to disturbance. As regards to the level of impact on the conservation value we are uncertain. There is, however, no documented indication of significant negative impact on the target species, but the impact on other relevant bird species is unknown.

The aim of visiting the bird reserve is clearly scientific. The purpose of the bird reserves is however to preserve important breeding habitats for birds, especially common eider and geese, cf. the Regulation section 30. Science is not an explicitly part of the protection purpose as it is for the national parks and other nature reserves. Long term studies can nevertheless bring valuable data for the management of the target species and/or the field sites. The Governor thus choose to put emphasize on the scientific reasons of the project, and to the potential management value of long-term data sets, cf. the Regulation section 37 a. We are, however, uncertain concerning the possible conflict with the objectives of the protection decision and the traffic ban. Alternative field sites outside protected areas are clearly to prefer and should be considered. According to the Svalbard Environmental Protection Act section 10, activities in Svalbard shall make use of the technology that puts the least possible pressure on the environment. This principle also applies for research activities, which should strive to minimize the need of disturbance in protected areas in general, and especially in traffic ban areas. We emphasize the importance of coordinating relevant projects, such as RIS-ID 11237 and the current project, striving to minimize both the number of visits and the stay-time within the bird reserve in Kongsfjorden in the traffic ban period. For future applications we meet a specific plan for such coordination.

As an overall assessment based on the current knowledge, we consider the visits applied for not to conflict with the purpose of the protection of the bird reserve. Due to the presumably high level of total disturbance the ongoing research programs makes up in Kongsfjorden bird reserve, this is however a consideration in doubt, cf. general notes in a coming paragraph this letter.

Application point 3:

*-Place maximum 20 automatic wildlife camera's (14\*9\*6.5 cm) in the field during this summer to register predator activity and to monitor and read rings of geese and terns. Locations will be Prins Heinrichsøya, Storholmen, tundra around Ny-Ålesund, Knudsenheia, Gerdøya and Brandalslaguna (RIS 6359, 6360, 10042 (on snowbunting nests). These are extra cameras than those applied for in RIS 11237.*

The Governor considers the cameras applied for as reversible and temporary installations with low risk of negative implications for the birds, c.f. the Regulation section 34. We expect that the cameras are secured properly for humans and wildlife and removed by the end of the study period. The measuring equipment as described are modest in size and of temporary character and will, as we consider, not impact landscape, terrain or disturbance of the environment, cf. the Regulation section 33.

Application point 4 and 6:

*-Ring arctic terns near Ny-Ålesund, on Prins Heinrichsøya and on Gerdøya with individual coded plastic rings, metal rings of Stavanger Museum and retrieve geolocators to map annual migration.*

*-Catch and measure barnacle geese during brood rearing. All birds will be measured and weighted and geolocators will be retrieved. For retrieval of geolocators, geese identified during the nest*



*census will be caught on the nest in the breeding sanctuaries in Kongsfjorden. One catch during the moulting period is planned with my own team members on Storholmen. The other catches will be outside the bird sanctuaries.*

Prins Heinrichsøya and Storholmen are within Kongsfjorden bird reserve, while the other locations are outside.

Catching and handling birds during the breeding season are regarded as disturbance, implicating a risk of negative consequences for the birds being captured and/or their eggs and offspring. The risk applies both inside and outside the bird reserves, but the level of protection is higher within the bird reserves. The number of individuals that are to be captured is most likely somewhere between 60-500. As we consider it, the number make up a limited part of the breeding population in Svalbard. Based on former experience with equivalent surveys, it is also reasonable to assume that the birds applied for will be resistant to some disturbance. The capture method and handling time area well known and tested, and considered to be acceptable given the described precautions, cf. the Svalbard Environmental Protection Act §§ 7, 8 and 10. All activities concerning handling, instrumentation and measurements need to be approved by the Norwegian Food Safety Authority (Mattilsynet).

Performed correctly, with as short handling time as possible, the Governor consider the level of disturbance due to the described measures to be acceptable. As we can see, there is however no clear justification for catching and ringing terns within the bird reserve. Due to this, catching and ringing arctic terns must be performed outside protected areas, not on Prins Heinrichsøya as applied for. As an overall assessment based on the current knowledge, we consider the measures for the barnacle geese not to conflict with the purpose of the protection of the bird reserve. Cf. our consideration regarding the traffic ban in the paragraph above, this is however a consideration in doubt. As for the following field-seasons, alternative field-sites outside the protected areas must be considered and preferred also for the geese.

#### Application point 5:

*Make use of an observation hide during undisturbed observation of birds. The observation hide is 1.2 x 1.2 x 1.2 meter. The hide is placed in a position where the geese come on land. One person will sit in the hide to read rings through a telescope, while the other takes a better viewpoint at which there is no disturbance, but bears can be seen approaching the hide. The procedure takes a maximum of 5 hours and the hide will be put up at the start of the observation and taken down at the end.*

The observation hide is a measure to reduces the disturbance level due to human presence in the bird reserve. It is not specified whether the hide is to be placed within or outside the bird reserve. The hide is a temporary measure and are of limited size. As long as the total time spent in the bird reserve does not exceed the level applied for (Storholmen: 20times\*10 hours visits, Prins Heinrichsøya 20times \*10 hours visits, 4 visits other current islands in Kongsfjorden), we consider the use of an observation hide as applied for as an acceptable measure both within the bird reserve, and at other current sites in the Ny Ålesund area.

#### Application point 7

*-Permission to collect small samples of vegetation, insects and lake plankton in the direct vicinity of Ny- Ålesund and to take the samples to the Netherlands for further analysis (RIS 10041, 10042 and 11461). Terrestrial insects will be caught in 5 pitfall traps.*



Catching terrestrial insects and sampling of vegetation and lake plankton as described is considered to implicate low risk of impact. It is a low number of insect traps (5), each trap is small, and comprises a small geographical area outside protected areas. Even though the catching method is unselective we consider the measure to give no risk of negative impacts for the species or ecosystems, c.f. the Act sections 8 and 10. The insect-catch is considered not to be in conflict with the purpose of the protection of fauna in Svalbard, c.f. the Act section 25. Note that the insect catch is prohibited within the nature reserves.

#### Application point 8

*-Erect 6 new long term grazing enclosures (2x2 m<sup>2</sup>) on goose grazed vegetation around the lake Solvatnet in Ny-Ålesund together with marking a control area. All with permission of Kings Bay. Planned duration until 2041.*

The Governor consider that the enclosures implicate low risk of negative impact on the flora and fauna. However, the planned duration is long term, until 2041. We consider it appropriate not to grant exemptions for more than 10 years, and thus limit the permission in time under the provision of the Svalbard Act section 37.

#### General remarks

We assume that all traffic both in the purpose of observation, outplacing the equipment, sampling of data, and the choice of placement and installation of all equipment will be made carefully to avoid any negative impact on resident flora or fauna, cf. the Regulation section 6 and the Act section 25.

The Governor has placed emphasis on the fact that the purpose of the fieldwork is strictly scientific. Further on the project is due to the application part of a long-term research project conducted in Ny Ålesund and Kongsfjorden area since 1990. The results from the fieldwork on the current species may be of importance for the management authorities. As an overall assessment, the Governor consider that the fieldwork will not affect the conservation value of the area and is not in conflict with the purpose of the protection decision. On this basis the Governor consider that we can grant permission for the measures as described in the application. The Governor do however see a need for a more complete overview of the overall human impact in the bird reserves due to the current research activities in Kongsfjorden bird reserve during the traffic ban period. As for the following field-seasons the Governor will follow-up this issue in consultation with the Norwegian Polar institute and NySMAC. We therefore encourage future applications to consider and prefer alternative field-sites outside the protected areas.

#### **The Governor's decision**

The Governor has considered your application and made the following decisions:

**The Governor does not grant permission to for capturing and ringing arctic terns on Prins Heinrichsøya.** The measure is considered to conflict the purpose of the protection decision, cf. the Regulation section 30.

**Under the provisions of the Svalbard Environmental Protection Act of 15 June 2001, § 37 and the Regulation relating to the national parks South-Spitsbergen, Forlandet and North West - Spitsbergen, on the nature reserves North East-Svalbard and South East-Svalbard, and on the nature reserves for birds on Svalbard, § 37, the Governor grants University of Groningen**



**by Martin Loones permission to the following measures and activities during the period 15<sup>th</sup> of June – 31<sup>th</sup> of August 2021:**

-Access to Kongsfjorden bird reserve as follows: 20 visits to Storholmen and 20 visits to Prins Heinrichsøya with a maximum of 4 people at once. 4 visits to each of all the other islands in Kongsfjorden with a maximum of 3 people at once. The aims of the visits are to read rings, count moulting geese and goslings, retrieve geolocators, determine egg survival, breeding phenology, hatching success and predation. Maximum stay-time for each visit is 10 hours for Storholmen and 2 hours for Prins Heinrichsøya and for the rest of the islands.

-Place a maximum of 20 automatic wildlife cameras as described in the application at Prins Heinrichsøya, Storholmen, tundra around Ny-Ålesund, Knudsenheia, Gerdøya and Brandalslaguna.

-Capture and handle a maximum of 500 barnacle geese during brood rearing. For retrieval of geolocators, geese identified during the nest census can be caught on the nest in Kongsfjorden bird reserve. One catch is permitted on Storholmen. The other catches are permitted outside the bird sanctuaries.

-Capture and ring a maximum of 100 arctic terns near Ny-Ålesund and on Gerdøya. Retrieving and application of 20 geolocators from/on the terns are included in the 100 captures permitted.

-Make use of an observation hide as described in the specification of the application (1.2m x 1.2m x 1.2 m). The hide shall be mounted and dismantled for each of the separate observation periods of maximum 5 hours each.

-Permission to collect small samples of vegetation, insects, and lake plankton in the direct vicinity of Ny- Ålesund by use of the methods described in the application. The samples can be brought to the Netherlands.

**Under the provisions of the Svalbard Environmental Protection Act of 15 June 2001, § 37 the Governor grants University of Groningen by Martin Loones exemption from the flora and fauna protection, cf. the act section 25, to erect 6 long-term grazing enclosures (2m\*2m) on goose grazed vegetation around the lake Solvatnet in Ny-Ålesund together with marking a control area with sticks. The exemption is given for the period from 14<sup>th</sup> of June 2021 until 31<sup>st</sup> of August 2031.**

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

- Sampling of vegetation and invertebrate fauna must be done with special care, as to minimize negative impact on flora, fauna and terrain. The holes/ traces produced by the installation and sampling shall be made as little visible as possible.
- The project must coordinate the need of visits to Kongsfjorden bird reserve with relevant projects, such as RIS-ID 11237, striving to minimize both the number of visits and the stay-time within the bird reserve in Kongsfjorden in the traffic ban period.
- The fieldwork shall not cause unnecessary stress and strain on the birds.
- Whenever possible the observing/data collection shall be done from boat and not going ashore.





- The installations shall be marked with the owner's name, institution, contact information, RiS-ID, date of deployment and retriever.
- The installations shall be removed, and sufficient clearing shall be made by the end of the permit, at the latest 31<sup>th</sup> of August 2021. The 6 grazing enclosures shall be removed by the end of the permit, at the latest until 31<sup>st</sup> of August 2031.
- Procedures for preventing transmission of any disease shall be followed.
- The project owner shall provide for the immediate reporting of possible accidents/irregularities to the Governor.
- The project shall submit a report from the field work by **1<sup>st</sup> of November 2021**. The template for this report can be found on the Governors web pages.
- All equipment you bring during the field trip, and all waste items, are to be removed and brought back to Longyearbyen when the field expedition is finished. Garbage shall not be burned, except clean untreated wood.
- When carrying out the projects, the researchers shall show consideration towards other users of the areas in such a way that the research does not seem provoking or destroy people's wilderness experience.
- These exemptions are only valid for the people included in the projects.
- This permit must be brought along during the fieldwork.

### **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."*

### **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.

Regards

Kristin Heggelund  
Head of Environment Protection

Ingunn Løvdal  
Advisor nature management

<i>This document is approved and expedited electronically without signature</i>
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**Copy**



Kings Bay AS  
Miljødirektoratet  
University of Groningen