

Project information

Project title

Urban kittiwakes – human/kittiwake co-existence in urban space

Year

2019

Project leader

Tone Kristin Reiertsen

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

Tromsø lat 69.6489, long 18.95508, Vardø lat 70.1093, long 31.1094, Hornøya lat 70.3706, long 31.10.94

Participants

Project leader(s)/institutions:

Tone Kristin Reiertsen; NINA Tromsø Tone.Reiertsen@nina.no

& Karl Otto Jacobsen; NINA Tromsø karl.jacobsen@nina.no

Project participants/institutions:

- Sanne Bech Holmgaard, NIKU Tromsø sanne.holmgaard@niku.no

- Helen Wilson, Durham University, UK helen.f.wilson@durham.ac.uk

- Espen Rafter, Polaria Tromsø. Espen.rafter@polaria.no

- Bo Eide, Tromsø commune, bo.eide@tromso.kommune.no

Flagship

Fjord and Coast

Funding Source

Summary of Results

1. Summary of results, including 2-3 highlights from the project (max 1 A4 page, figures can be attached separately):

Monitoring of breeding urban kittiwakes:

To investigate how the increased urbanization of the kittiwakes is linked

to climate change we have monitored the number of breeding kittiwakes and the breeding success in Tromsø and Vardø. Species experiencing large environmental changes, like climate change, have two choices unless going extinct. They can adapt where they are, or change their range or distribution. The kittiwakes are suffering highly from climate change mainly through lack of surviving chicks in their natural bird cliff habitat. Calculations from population modelling shows that they may disappear from our coast within the next 40 years. Kittiwakes are becoming more and more urbanized, and this may be a response to the large environmental changes they are experiencing. We started ringing and tagging a sub-sample of birds with individual codes and geolocators in 2019, to get information of movement and winter-ecology. The preliminary results of nest and chick counts from Tromsø and Vardø are listed in table 1 (see enclosed). The number of breeding birds are increasing both in Tromsø and Vardø, but the breeding success differed. In Tromsø the breeding success was assessed as poor, and in Vardø it was medium. The breeding success in Vardø is in strong contrast to the breeding success of kittiwakes on Hornøya, a close nearby bird cliff, where the breeding success was in total failure in 2019. This indicate that causal studies of urban kittiwake's breeding success is important. In 2020 we will get more data of changes in number of breeding birds, breeding success, foraging activity and winter-ecology. All of this together with climate data will provide a higher understanding of how the kittiwakes are changing its biology related to environmental change.

Challenges of urban co-existence

Loss of biodiversity is one of the biggest threats in our time, as revealed by the IPBES report earlier this year. When threatened wildlife, like the endangered kittiwake, are moving closer to humans it imposes a challenge to management. Kittiwakes are noisy and messy neighbours, and build their nests on walls and sills of buildings. They are often not wanted, and various sort of deterrents are used to prevent them from occupying nest-places on buildings. There is a strong need for information regarding both measures and facilitation to the public and the management. The results from our project will provide solutions for a better co-existence that can be implemented in cities' management plan for taking care of the biodiversity. We plan to write these results for publication in a scientific journal next year.

Experience from Newcastle

Experiences from Newcastle, where the Kittiwakes have been nesting along the river Tyne since 1943, have provided useful knowledge regarding measures and facilitation that works well for the challenges to both kittiwakes and the public. In May 2019 we conducted a study trip to

Newcastle. Here we met our project partner, Helen Wilson from Durham University, who guided us through the city to the places where the Kittiwakes nest. We learned about the challenges, and observed the various measures and facilitation performed to help a better co-existence. We also held a meeting with the RSPB (Royal Society for the Protection of Birds), where we were informed of their involvement in trying to solve the challenges of having this seabird nesting in the city.

Social science/ interviews

We have conducted interviews with management agencies and interest groups. More interviews are scheduled with owners of buildings, private organisations as well as public agencies. These interviews will be conducted in November 2019 and the first quarter of 2020.

In order to assess public opinions on kittiwakes in the urban area of Tromsø, we have compiled a dataset of newspaper articles using various search words related to kittiwakes and other gulls. We have started the process of coding and analysing this data. This work will continue in 2020. As this work is ongoing, results are not ready. Preliminary findings indicate that there are potential conflicts related to kittiwakes in the city area, mainly related to nests and faeces on surfaces and in front of buildings.

From interviews as well as from an overview of the local media data, preliminary findings indicate that there is more conflict related to co-existence between people and other gulls (i.e. herring gull and common gull) than with kittiwakes. Initial findings from this part of the project also indicate that people are generally not aware of the differences between different kinds of gulls. Management agencies identify a need for more communication to the public on kittiwakes, on their biology as well as on deterrents, e.g. what measures exists, effectiveness and what is allowed and not. Interviews also indicate that interests groups see some potential for creating positive awareness on kittiwakes through for example bird-watching events, catering to locals as well as visiting tourists.

Tabell 1. *Overview of the number of breeding pair and breeding success of kittiwakes in Tromsø and Vardø in 2018 and 2019. Number of breeding pair is estimated from counts of occupied nests. Breeding success is estimated from counts of chicks/ occupied nests late in July. Breeding success is then assessed as good (green), medium (yellow) or poor (red). Breeding success was not estimated in 2018.*

Location	Number of breeding pair		Breeding success	
	2018	2019	2018	2019
Tromsø	42	115	-	Dårlig
Vardø	303	422	-	Medium

For the
Management

The

objective of this multi-disciplinary project is to provide scientific advise of how the kittiwake, an endangered seabird, can co-exist with humans in the cities. Increasing our knowledge of the urbanized kittiwakes can prevent us from losing this species and conserve our coastal biodiversity. Estimates show that the kittiwake has a high risk of being extinct along our coastline within the next 40 year. The kittiwake is becoming increasingly urbanized, at the same time as they experience strong declines in natural bird cliffs. The common challenge for this species is poor reproduction. It's been suggested that kittiwakes have higher breeding success when they breed closer to humans. At the same time kittiwakes breeding close to humans imposes challenges since they are not always wanted in human neighbourhood because of noise and faeces. In our project we seek to understand the relationship with increased urbanization and climate change by monitoring and studying the biology of kittiwakes breeding in Troms and Vardø, and find solutions for a better co-existence between kittiwakes and humans in urban space.

Published Results/Planned Publications

We plan to publish two papers, one on the social science part and one on the biological part. Publications will be specific for the disciplines, but will use data and analysis from the project as a whole. Preliminary working titles for the planned publications are:

- 1) "Kittiwakes in the city: public perceptions and challenges for co-existence in urban space."
- 2) "Kittiwakes in a changing world; does increased urbanization reflect responses to climate change?"

Communicated Results

- Artikkel I Nordlys 10.07.2019 "Dette får forbipasserende tromsøværing til å reagere: - Folk roper og sier vi må stoppe»

Public Events:

- Pecha Kucha foredrag ved Folkedialogmøte ved Tromsø Bibliotek 15.10.19
- Fredagsforedrag ved Framsenteret ("Krykkja – klimaflyktning og urban innflytter») 15.11.19
- Foredrag ved temamøte om Naturmangfold i Tromsø, ved Tromsø Bibliotek («Urbane krykkjer») 11.12.19

Social media:

We communicated through both facebook and Twitter to reach both national and international attention regarding the project

Interdisciplinary Cooperation

Disciplines include social anthropology, ecology and human geography. Due to the interdisciplinary nature of the project and its objectives, we consider this combination both relevant and necessary to answer the project objectives.

Budget in accordance to results

The funding from the Fram Center is pivotal for the project. The project is progressing in a timely manner and we depend on funding for completing the tasks and objectives as stated in the application for 2020. The project does not receive other sources of external funding.

Could results from the project be subject for any commercial utilization

No

Conclusions

Through a strong inter-disciplinary collaboration, between social anthropology, ecology and human geography, this project have lifted and highlighted the need for good solutions and information for human-wildlife co-existence . It has also helped raising

awareness of why studies of human-wildlife interactions in urban space is a necessary in order to preserve biodiversity.

The project have led to extended collaboration and further proposal for funding (e.g a proposal led by Helen Wilson and submitted to the British Academy; “Urban futures: seabird decline and the rise of the urban kittiwake”). We also plan to apply for further funding in Norway, through e.g. the Norwegian Research Council.