

## Project information

### Keywords

Seabird, kittiwake, urban co-existence, climate change, endangered species

### Project title

Urban kittiwakes: building artificial nestsites in Tromsø

### Year

2018

### 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

### Participants

Tone Kristin Reiertsen, NINA Tromsø

Karl Otto Jacobsen, NINA Tromsø

Rob Barrett, UIT Norges Arktiske Universitet, Tromsø

Espen Rafter, Polaria

### Flagship

Fjord and Coast

### Funding Source

- Framsenteret Fjord og Kyst flaggskip; 150 000 NOK
- Fylkesmannen i Troms; 150 000 NOK

### Summary of Results

**Building of artificial Nest sites:** We built 30 artificial nest sites on a building at the “Sør-Sjeteen” in Tromsø. We were given permission from Tromsø Havn, which is the owner of this building. We also installed sound-equipment with kittiwake sound to attract kittiwakes to establish their breeding site there. However, the project was funded after kittiwakes already had established their breeding sites in Tromsø. The artificial nest sites are now ready for kittiwakes to breed for next year.

**Monitoring of breeding urban kittiwakes:** We started to monitor the breeding population of kittiwakes in Tromsø. The counts showed that in total there are 232 breeding pair of kittiwakes in Tromsø. 144 of these are nesting on Skattøra, and 38 are breeding on various buildings in the city-centre of Tromsø. We also registered that buildings with observations of breeding kittiwakes the year before, had removed the nests and installed deterrence like spikes and kites. One of the main findings we discovered during the project, due to our outreach activity, was that the urbanization of kittiwakes is an increasing phenomenon both national and internationally in the North Atlantic. We were contacted from various stakeholders in Kommuner (eks. Vardø, Berlevåg, Hammerfest, Levanger) along our coast reporting of the increased conflict between humans and urban kittiwakes often leading to removing of nests even if they are aware of the status of this species as threatened. Also, from the UK we got information that urban kittiwakes are increasing. At the same time kittiwake populations in natural bird-cliffs are decreasing all over the North Atlantic, due to direct and indirect effects of climate change. We hypothesize that kittiwakes are altering their breeding distribution towards a more urban lifestyle because of climate change. The effect of climate change can be either indirectly because of a change in their foraging behaviour. Ocean warming may have changed the availability of their prey. Or directly because of more frequent storm activities which can be devastating, and kittiwakes may need more sheltered breeding grounds in order to bring up their chicks. We find it crucial with more future research in order to understand how this threatened seabird are coping with climate change.

**Establishment of international and multi-disciplinary collaboration:** During this project we realized there is a strong need to increase our knowledge regarding the co-existence of a threatened seabird due to climate change and humans in our urban coastal landscape. Urban kittiwakes are facing new threats as a result of co-existence with humans in urban space. This has the potential for conflicts since kittiwakes are known to be noisy and messy birds, but also mutual benefits such as the development of wildlife tourism attraction. Our outreach activity on Twitter gave us the possibility to establish an international multidisciplinary collaboration with Dr Helen F Wilson from Durham University which have been strongly involved in the Tyne kittiwakes in Newcastle. Dr Helen R Wilson has expertise in animal geographies, animal human conflict, and the Tyne kittiwakes. We also established a collaboration with Dr Sanne Bech Holmgaard from NIKU who has experience in experience in studies of the human dimensions of wildlife management, including studies on the perceptions and preferences of different stakeholders and their integration in sustainable management.

Master and PhD-students involved in the project

None

For the Management

Krykkje er sterkt truet. Krykkja har endret sin hekkebiologi og utbredelse, ved at flere hekker i "urbane" områder på menneskeskapte strukturer og bygninger. Dette medfører en forvaltningsmessig konflikt, da deres naboskap fører til støy og fugleskit, samtidig som loven forbyr fjerning av reir i hekketiden. Å øke kunnskapen om denne delen av en sterkt truet art er viktig i arbeidet med å finne tiltak som fasiliterer bevaring og bedre forvaltning. Prosjektet har tre målsetninger; 1) å kartlegge omfang, hekkebiologi og beiteadferd 2) å bygge et "krykkjehotel" som en alternativ hekkeplass på et egnet sted med lavere konfliktnivå, 3) å øke publikums kunnskap om arten og årsak til urbanisering gjennom outreach.aktivitet i samarbeid med Polaria.

Communicated Results

**Outreach in Newspapers:**

26.01.2018	Artikkel i Nordlys	"Forskere vil bygge kunstig fuglefjell for måser i Tromsø"
26.01.2018	Artikkel i iTromsø	"Vil bygge kunstige reir i sentrum for å berge truet fugleart"
06.04.2018	Artikkel i iTromsø	"Her kan krykkja hekke uforstyrret"
14.07.2018	Artikkel i Fiskeribladet	"Krykkja gir ikke opp industrisatsingen"

**Public Events:**

29.09.2018	Fritt Fram	Framvisning av bilder og tekst om Urbane krykkjer
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**Social media:**

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

Budget in accordance to results

The budget were in accordance to results

Could results from the project be subject for any commercial utilization

No

Conclusions

Our project main findings regarding the increasingly change in kittiwakes breeding distribution towards a more urban lifestyle, shows a strong need to increase our knowledge regarding the co-existence of a threatened seabird due to climate change and humans in our urban coastal landscape. This provides new threats to a red listed species and has the potential for conflicts since kittiwakes are known to be quite noisy and messy birds, but also mutual benefits as a result of co-existence in urban space. Kittiwake populations in natural bird-cliffs are decreasing all over the North Atlantic, due to direct and indirect effects of climate change. We hypothesize that kittiwakes are altering their breeding distribution towards a more urban lifestyle because of climate change. The effect of climate change can be either indirectly because of a change in their foraging behaviour. Ocean warming may have changed the availability of their prey. Or directly because of more frequent storm activities which can be devastating, and kittiwakes may need more sheltered breeding grounds in order to bring up their chicks. We find it crucial with more future research in order to understand how this threatened seabird are coping with climate change. Also there is a strong need for more knowledge of inter-species encounter and co-existence in urban space, through a multi-disciplinary approach.