

## Abstrakt

Short breeding period and harsh climatic conditions are major limiting factors to which birds have to adapt in northern tundra regions. Despite this fact, dozen species of birds annually migrate into these regions to increase their chances to breed successfully. My diploma thesis focuses on incubation behaviour of the Arctic tern (*Sterna paradisaea*). The research for my thesis took place on the Norwegian archipelago Svalbard, in two particular locations: Adolfbukta and Longyearbyen. By using the method of continuous video recording, I described incubation behaviour of this specie in detail. Human activity is very different on each of Adolfbukta and Longyearbyen. On site Adolfbukta study was conducted during seasons 2012 and 2014, both with different predation pressure. Having known that, I could evaluate the impact of human activity as well as the impact of different predation pressure on incubation behaviour and breeding ecology of Arctic tern. The presence of human close to the colony had significant effect on incubation behaviour. Due to higher disturbances, incubating birds tended to leave their nests more often, attention paid to the nest was smaller and calm incubation (sleeping on the nest) was shorter by a half. Human activity had no effect on other displays such as average clutch size or nesting success. Therefore, it is possible that disturbances caused by people are not severe. Moreover, balance can be reacquired by lowering the predation pressure on the nest resulting in higher nesting success of Arctic tern in the long term. On the other side, high predation pressure by polar bear on site Adolfbukta in 2014 had significant effect on nesting success - which radically decreased. This could mean a complete failure of nesting in local harsh conditions. Predation had no significant effect on behaviour during incubation. Most likely, the presence of a polar bear in the colony occurred only for a short term and it had insignificant effect on incubation behaviour in general given by local conditions.