

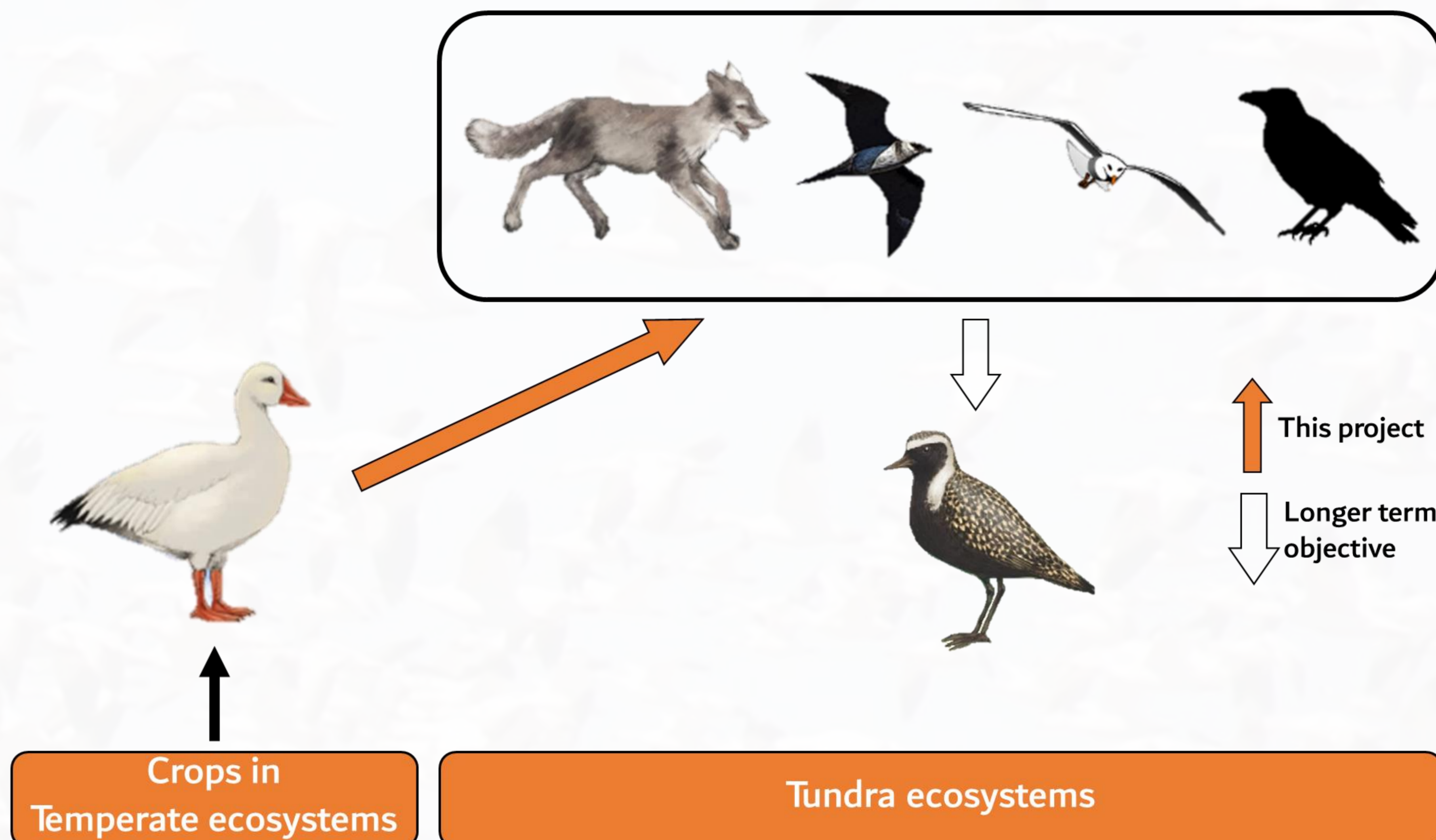
# Can goose colonies supported by anthropogenic activities in temperate ecosystems affect the activity of tundra predators?

## A multi-site comparison conducted at a circumpolar scale

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### Context

- Arctic ecosystems are connected by migratory species
- Some migratory species increased dramatically in the last decades due to human activities
- Demographic explosion in goose populations may contribute to the decline of arctic-nesting shorebirds
- Evidences suggest that geese can support predators at higher abundance in the Arctic, and this can, in turn, increase the predation pressure on shorebirds



### Objective

Study the impact of goose colonies supported by human activities on an index of activity and abundance of arctic predators at a circumpolar scale.

### Hypothesis

Ressources from temperate ecosystems influence predator activity and abundance in less productive ecosystems (e.g. tundra)

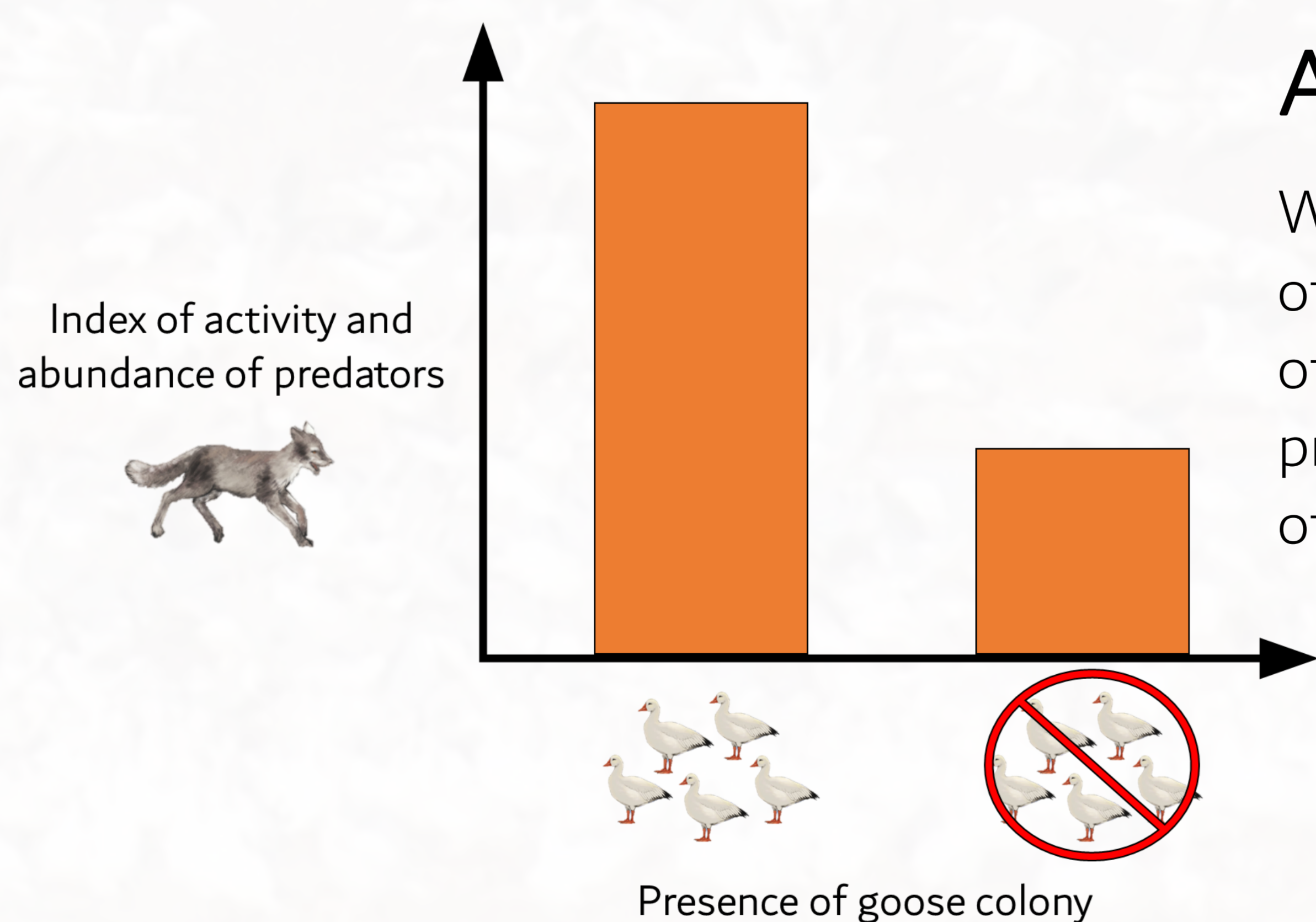
### Methods

- 12 sites in the circumpolar arctic
- Data from summers 2016, 2017, and 2018
- Protocols
  - Presence/absence and distance to goose colony
  - Incidental observations of predators
    - Number of observations per unit effort
  - Incidental observations of lemmings
    - Number of observations per unit effort



### Anticipated results

We predict that the index of activity and abundance of predators is higher in presence than in absence of a goose colony.



### Incidences

This ongoing collaborative work will contribute to investigate potential causes of the pronounced decline in populations of arctic-nesting shorebirds. Such decline may be partly attributable to the human-induced increase in other migrating populations connecting temperate to Arctic ecosystems.