Dr Ed Wheatcroft (LSE CATS)
Dr Tessa Bargmann (University of Bergen)
Dr Simona Imperio (ISPRA, Italy)
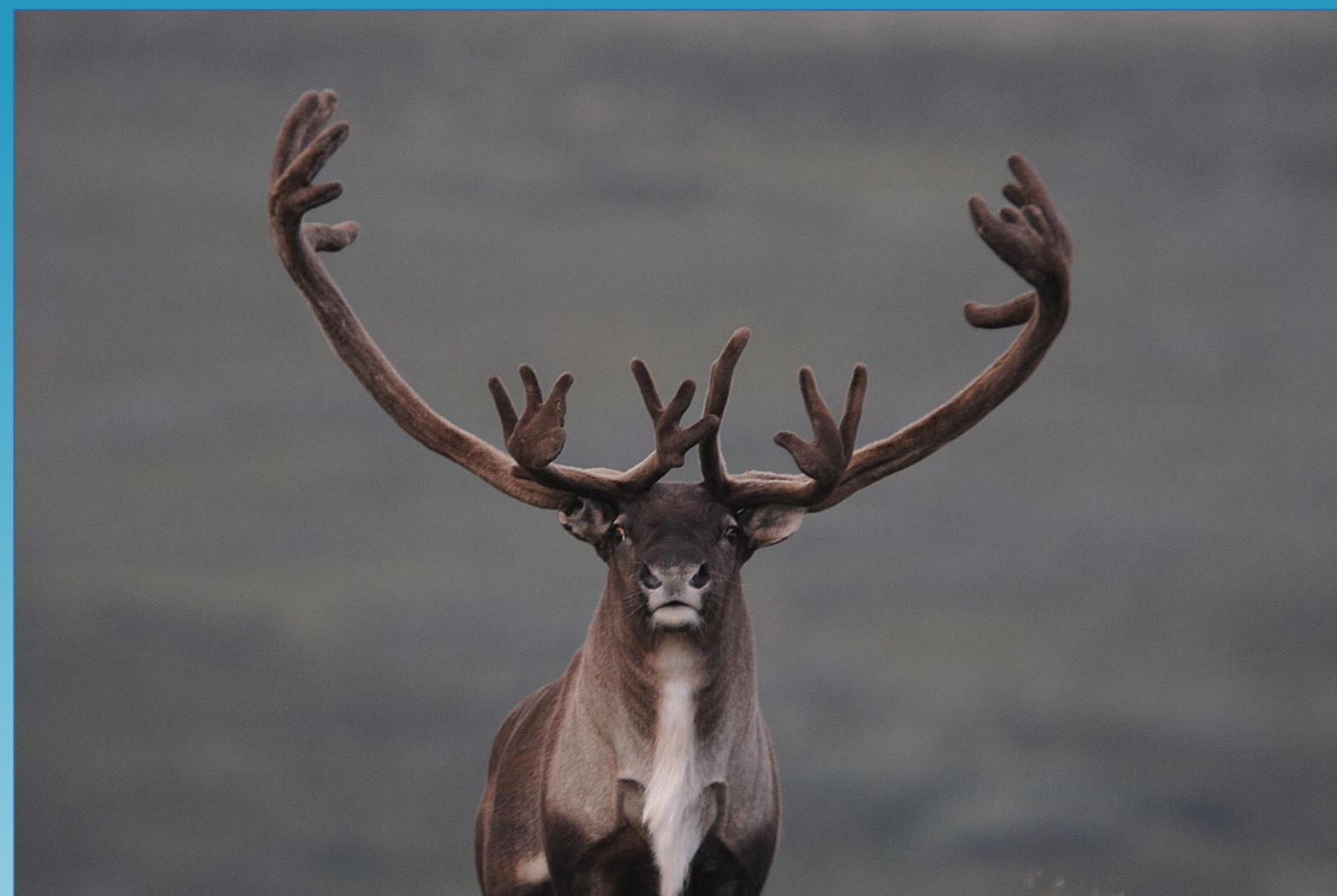Ole R Vetaas (University of Bergen)

Modelling Wild Reindeer Populations

Background

- Reindeer believed to be at risk from freezing and refreezing of snow creating a layer of ice and hindering access to lichen on the ground.
- A number of hunting licenses are issued annually.
- Aim to understand how weather and hunting affect the wild reindeer population in Hardangervidda National Park, Norway.

Results

- Number of animals hunted and mean winter temperature found to have negative impact on population.
- We can explain recent declines and increases in the population size.
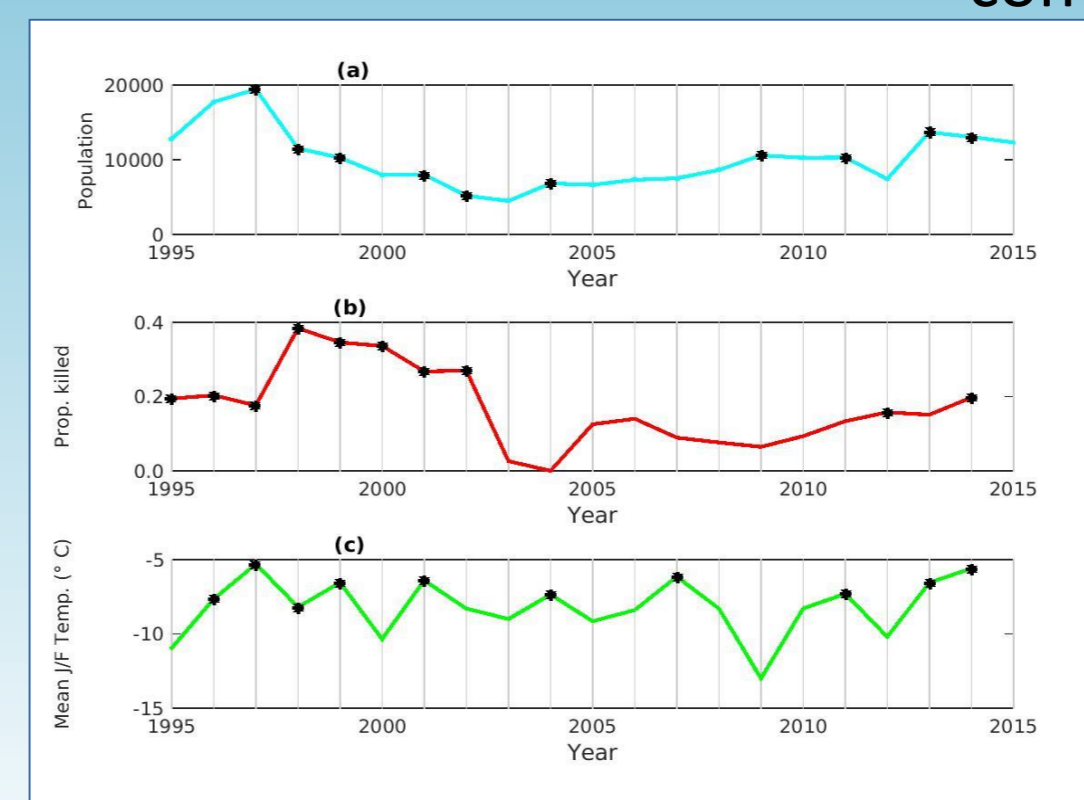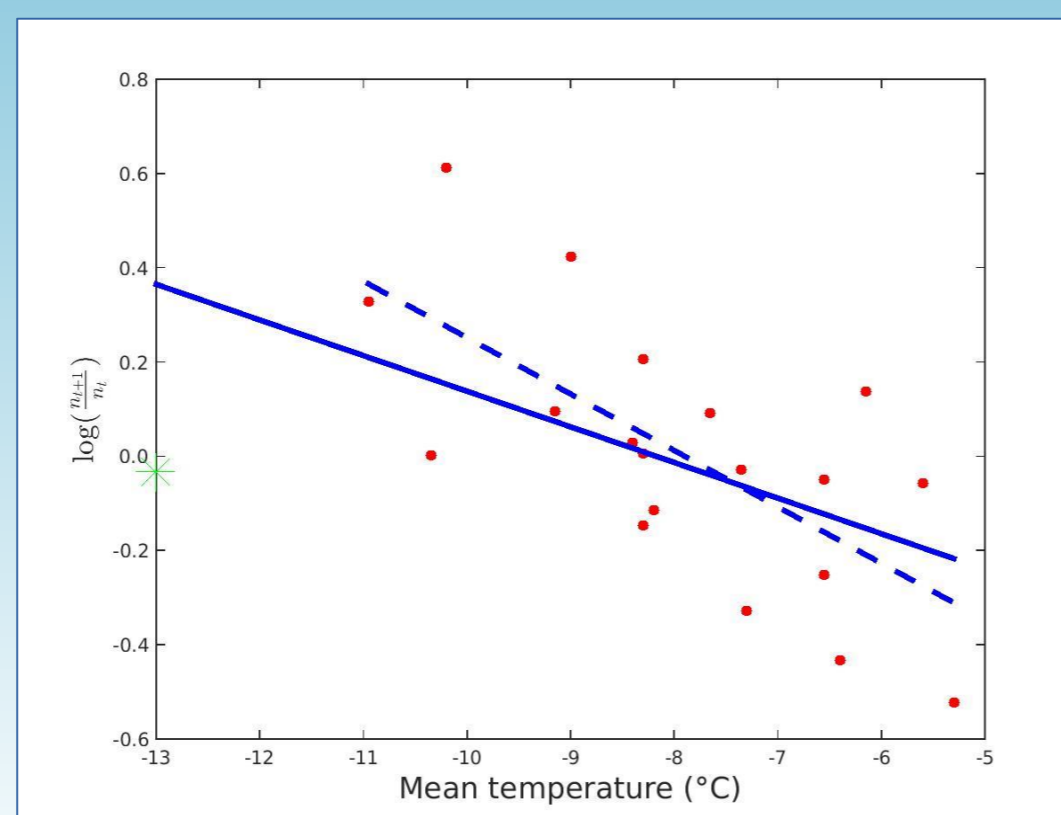
Conclusions

- Freezing and thawing likely to have a negative effect on the population.
- The number of hunting licenses issued can help control the population
- The population may be at risk as the climate warms and melting/refreezing becomes more common.

Top: a reindeer in Hardangervidda National Park (copyright Olav Strand).
Left: relationship between mean winter temperature and population change.
Right: explaining past changes in population with weather and hunting data.

Tell me more

http://www.lse.ac.uk/CATS/Research/ECOPOTENTIAL
e.d.wheatcroft@lse.ac.uk
@edwheatcroft1

CATS CENTRE FOR THE ANALYSIS OF TIME SERIES

LSE THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

This project is funded by the European Union