



Climate change effects  
on the epidemiology of  
infectious diseases and  
the impacts on Northern  
societies



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Nordic Centres of Excellence in Arctic Research

Toward a New Normal; Implications of Increased use of Supplementary Feeding in Fennoscandian  
Reindeer Husbandry

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# Background

- PhD Thesis: *Dilemmaet tilleggsfôring: en nymaterialistisk studie av tilleggsfôring av rein* (Nord university 2021 and CLINF)
- Study increased use of supplementary feeding of reindeer as an expression of change and as a driver for change
- Animal welfare
- **Q1: How can supplementary feeding be understood in the context of social, maternal and relational processes of change, in and around the Sami reindeer husbandry**
- **Q2: How does feeding affect the enactment of animals and humans in Sami reindeer husbandry**
- **Data:** interviews, literature review and participant observation
- Herders, management, inspecting veterinarians and researchers
- Case area: Nordland and Troms





# Sámi reindeer husbandry

- More-than- human assemblage/triade
- Key actors are the herders, the reindeer and the landscape
- Knowledge intensive
- Does not require heavy infrastructure or tools
  - Binoculars, Lasso, Knife
  - Corrals, Snowmobile /ATV
- «Semi-domesticated», «Free» or «owned» reindeer
- Reindeer utilize outfield pasture all year round
- «regarding animal welfare, the reindeer do best when they are able to live their lives without human interference»





# Status: Climate change and pasture crisis

- Nordland and Troms - multiple stressors – fragmentation of pasture land, lost access to winter pastures in Sweden, predation and coastal climate with unstable winters
- Climate change is negatively affecting pasture conditions
- Ice formation over lichen -> locked pastures -> supplementary feeding
- Declared pasture crisis in Nordland, Troms and Finnmark (2022) Last crisis was (2020)
- Locked pasture (ice)
- Approx. 160 000 reindeer risk starvation
- Affect the health and wellbeing of both reindeer and herders





# The dilemma – supplementary feeding

- Grass, lichen, concentrates
- (when done properly) it prevents hunger
- Increase weight of reindeer
- increase survival of herd
- Calms the herd
- Is used to prevent predation and prevent accidents (railway)
- Require new (and expensive) infrastructure (snowmobiles, sleds, silo, tractor)
- Require weeks of adaptation
- Work intensive
- Costly (concentrates, fuel, equipment, work-hours)
- Increase dependency
  - Between the reindeer herd and the herder
  - Between the herder and others, replacement/staff
- Increase risk of disease and death
- We do not know the long term consequences for
  - the reindeer
  - the reindeer husbandry





# Concluding remarks



...towards a new normal

- Best practice – when feeding is required
- Challenge the assumption that feeding is a neutral practice
- Larger discussion of what supplementary feeding does to both the husbandry, the herders and the herds

- Thank you!
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