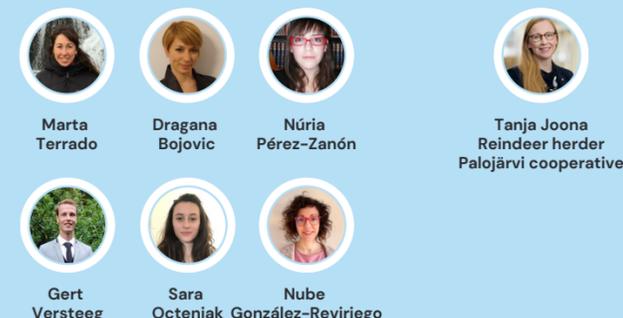


Climate change adaptation stories: Co-exploring climate predictions with Arctic reindeer herders



Reindeer husbandry is practiced in many Arctic territories by more than 20 different ethnic groups. Decision-making within the reindeer herding community has been based on traditional knowledge (encompassing Indigenous and practitioner knowledge), which are contextual and local forms of knowledge passed on from one generation to the next. Despite the capacity of reindeer herders to cope with adverse weather and grazing conditions through autonomous adaptation, today's rapidly changing Arctic environment poses new challenges to the management of herding activities. Finding means for equitably combining traditional and scientific knowledge is necessary.

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Objectives

- Co-produce knowledge that benefits the adaptation and decision-making of Arctic reindeer herding communities in the context of climate change through co-development of a case study
- Co-explore how (climatic) scientific knowledge can complement the traditional knowledge of reindeer herders
- Provide a proof-of-concept of a climate service for herders in Finnish Lapland as a first step towards a future operationalisation of the service



Identify reindeer herders' current decision making strategy and climate information needs



Co-explore climate information and assess forecasts' quality



Co-develop climate change adaptation stories for reindeer herding



Exchange and integrate knowledge

Methods

A transdisciplinary framework for knowledge co-production is applied, involving scientists and reindeer herding practitioners from different cooperatives in Finnish Lapland

1 - Informal interviews to understand the context



The reindeer management area in Finnish Lapland is divided in 54 herding cooperatives, called *paliskunta*, each responsible of the proper management of reindeer

2 - Survey on reindeer husbandry and climate change

Assess how practitioners' knowledge is integrated in daily decisions and how climate forecasts can help communities adapt to climate change (11 answers, 2 women/9 men, 5 cooperatives in mountain/fell area)



3 - Roundtable with reindeer herders



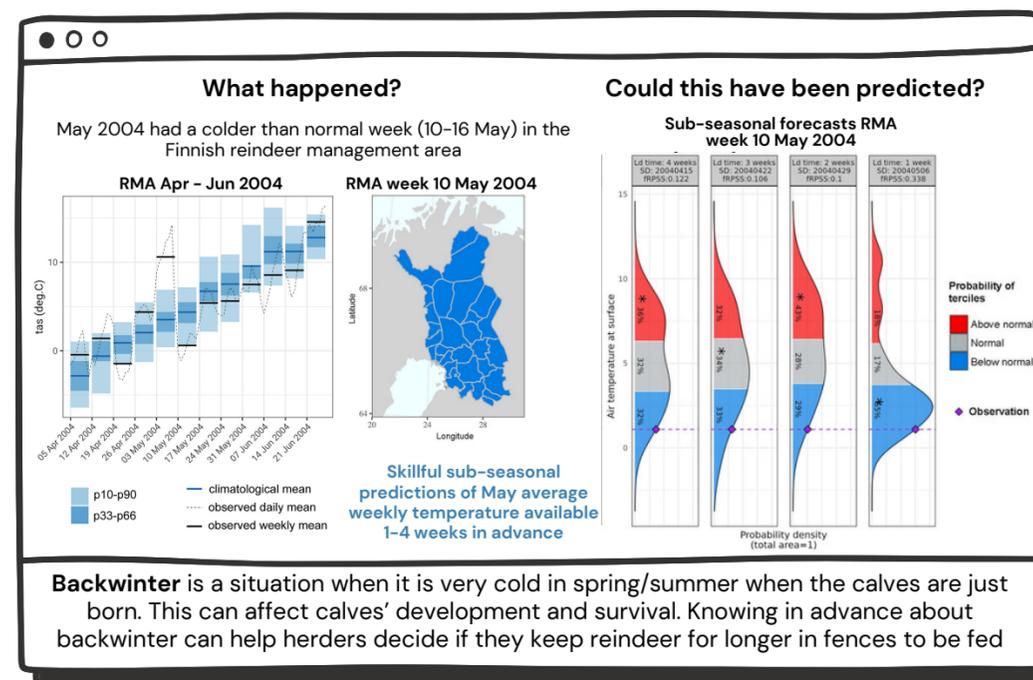
Discuss previously identified stories and define appropriate climate service products at sub-seasonal to seasonal time scales (7 participants, 2 women/5 men)

4- Relevant climate adaptation stories

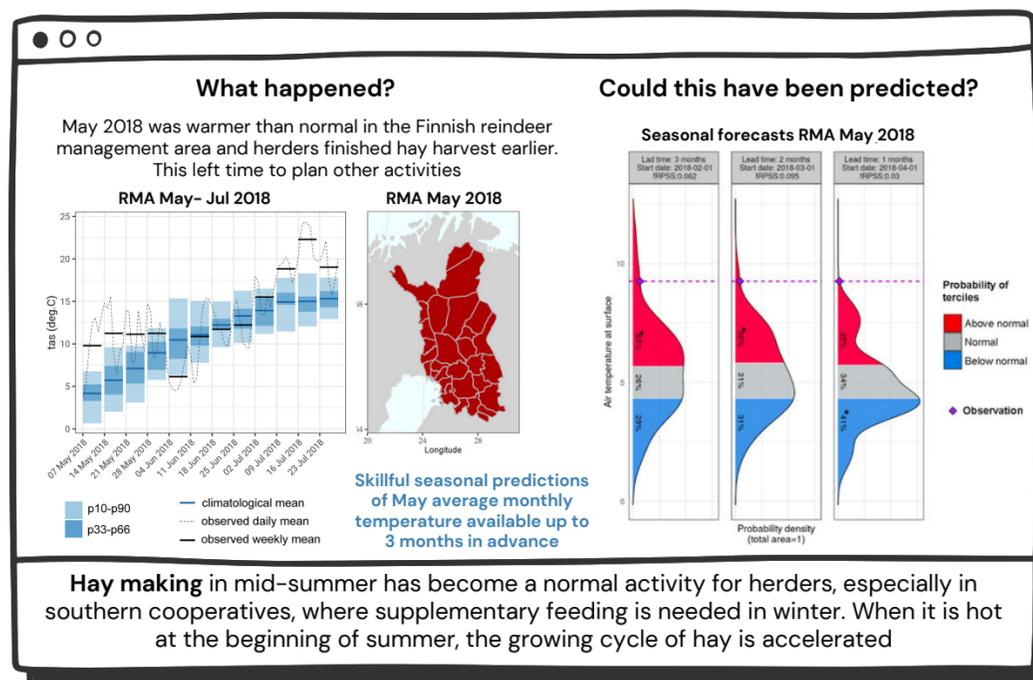
- **Summer:** harvest time and insect harassment
- **Fall:** round-ups and the mating process
- **Winter:** supplementary feeding
- **Spring:** release of reindeer for outdoor feeding and backwinter

Adaptation stories

Story 1 - Anticipating backwinter 'takatalvi'



Story 2 - Anticipating harvest time



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