Spatial ecology of the Svalbard reindeer

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Bjørndalen Integrated Gradients (BIG)

- Bjørndalen Integrated Gradients were initiated by the AB department at UNIS
- Making a cost-effective study system by combining resources, giving an authentic research experience for students

- **Examples of activities:**
  - Model system for autopolyploidy-research using *Saxifraga oppositifolia*
  - Time-lapse cameras conduct automated monitoring of plant phenology and plant-pollinator interactions
  - Monitoring of vegetation changes over time
  - Seasonal reindeer project with weekly countings
We expect that the spatial habitat use of reindeer in Bjørndalen is related to changes in snow cover and vegetation emergence.
How do we collect data on reindeer distribution in Bjørndalen?

- Weekly counts on reindeer, determining age/sex within groups
- Are there any patterns on the total amount of reindeer over time, and can this be linked to vegetation access?
- More reindeer in Bjørndalen now than in early spring, can see a difference in spatial distribution of the valley

Photo credit: Maren Hansen
Measurements of snow depth

- How deep is the snow they are foraging in?
- Using of snow data from weather station as well as four snow transects throughout the valley
- First time doing snow measurements in relation to foraging in Bjørndalen