Spatial ecology of the Svalbard reindeer

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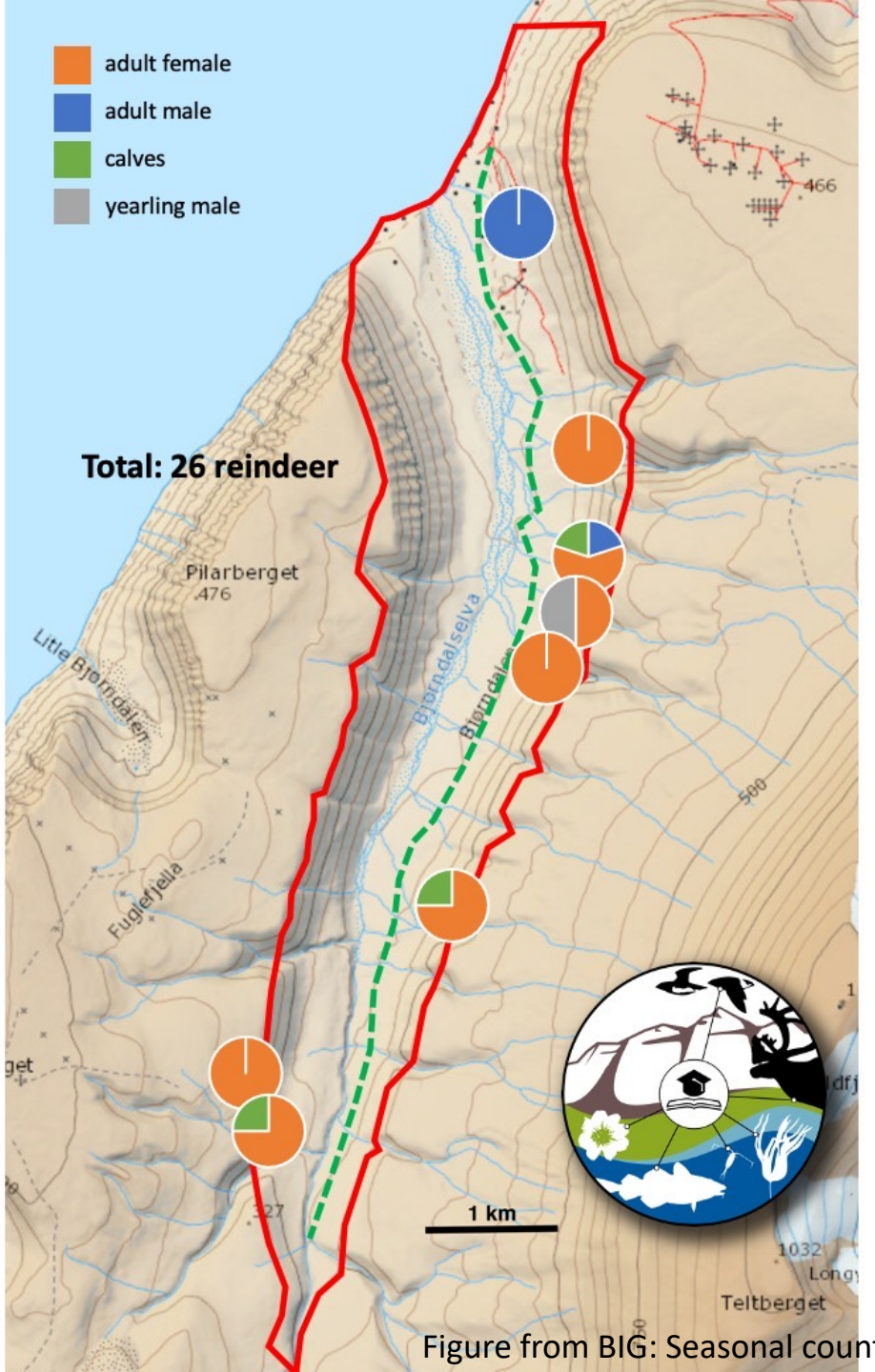

Figure from BIG: Seasonal count of reindeer, 17 April 2020

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 acitvities:**
- Model system for autopolyploidi-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

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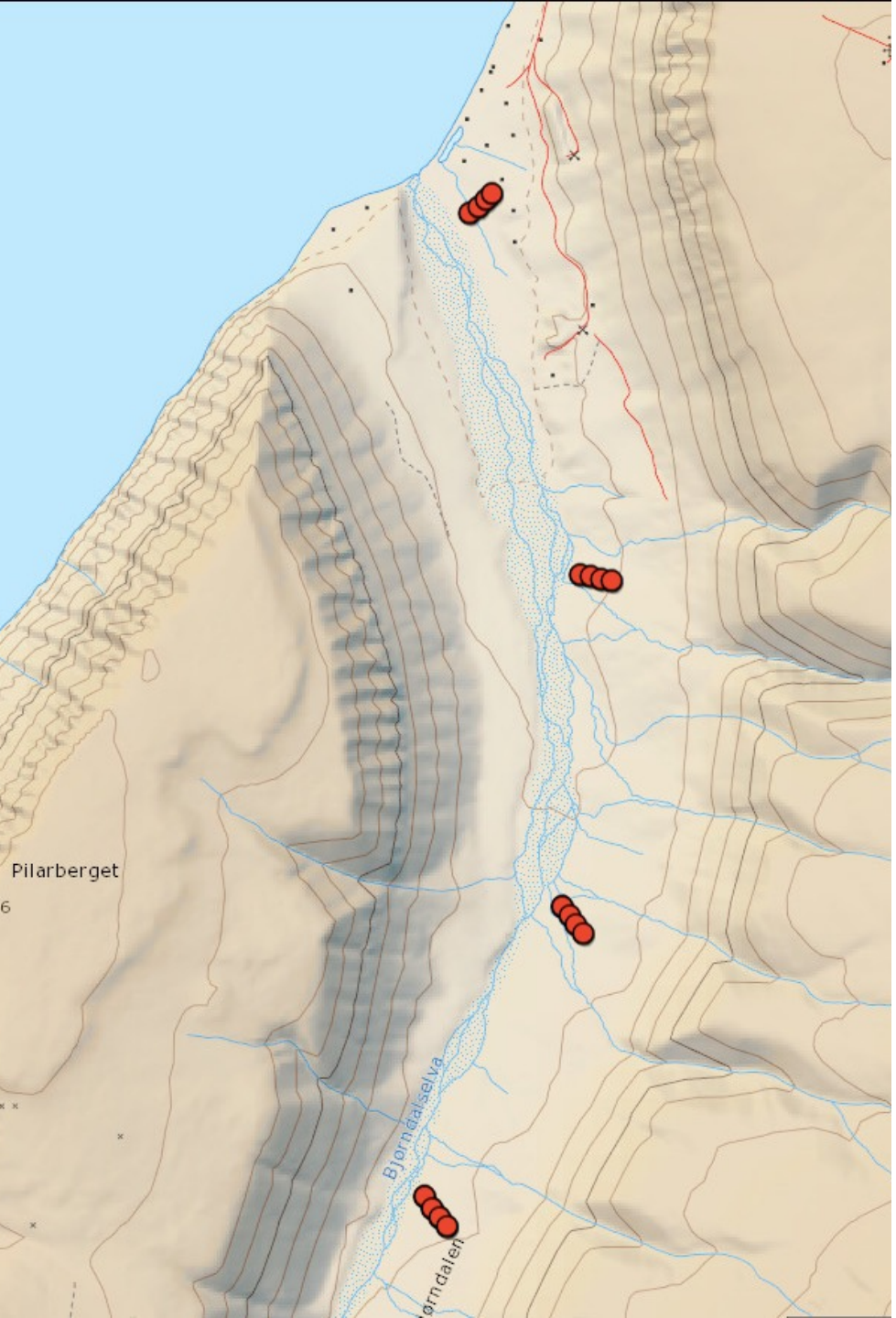
How do we collect data on reindeer distribution in Bjørndalen?

- 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

Reindeer foraging in Bjørndalen, photo credit: Tim Waring, all rights reserved