The background of the slide is a photograph of a horse grazing in a field. The horse is brown and white, standing in a grassy area with some purple flowers in the foreground. The background is a dense line of trees.

Saving a threatened breed – Conditions for maintenance and habitat selection of extensively kept Gotland Russ (*Equus caballus*)

Anna Skarin, Carl-Gustaf Thulin, Sara Ringmark, Kristina
Dahlborn & Anna Jansson,
Swedish University of Agricultural Sciences

Grazing in a changing Nordic region, 12-15 Sep 2016, Reykjavik,
Iceland

Gotlandsruss (rus=horse)

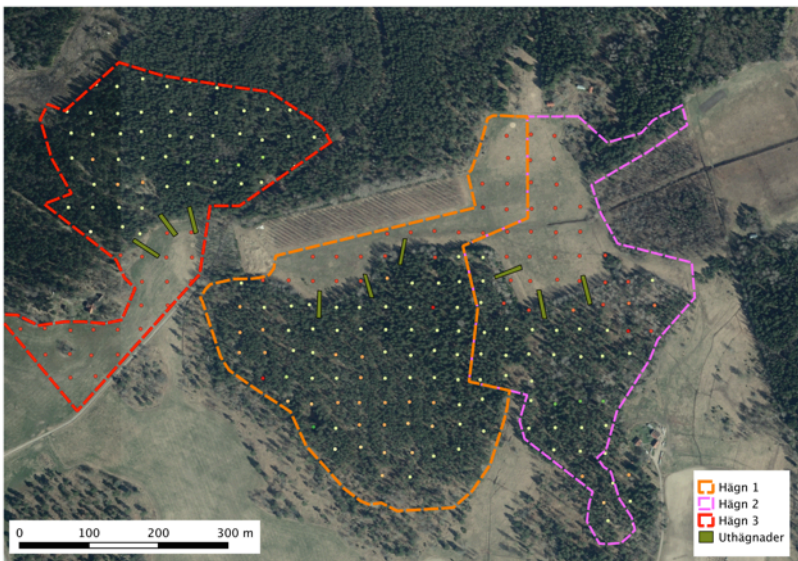


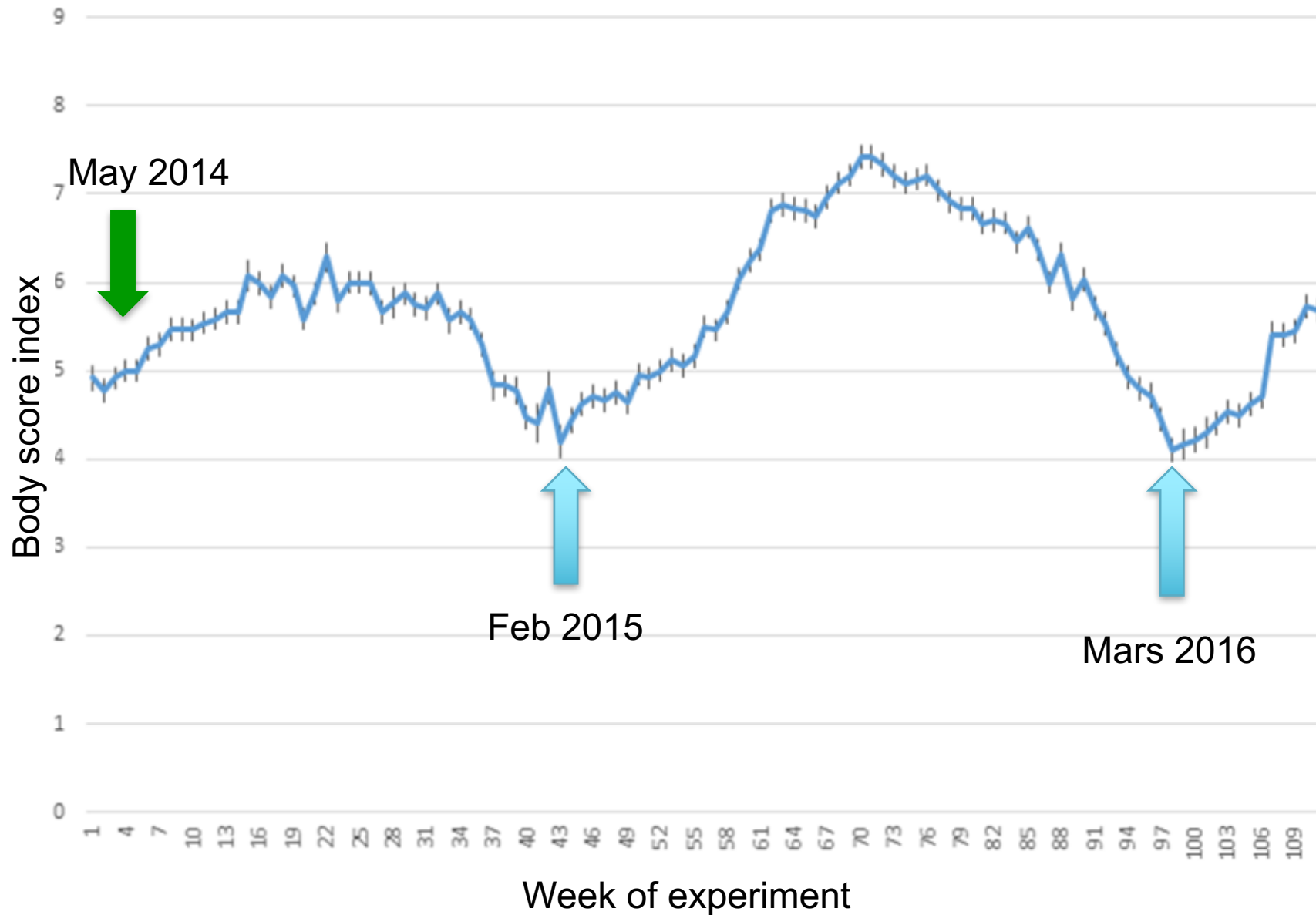
Hypothesis of study

- Keeping Russ all year around in a free range system may increase biological diversity in a Swedish landscape .
- Animal condition and health may be good.

Gotlandsruss a way to preserve biodiversity?

- Evaluation of horse welfare and effect on biodiversity outside Uppsala
- 3 enclosures 4 horses in each
- 3 summers and 2 winters (2014-2016)
- No feeding!
- Shelters and water troughs
- Vegetation inventory in forest and lay, exclosures, evertbrates etc.
- Horse BSC, weight, parasites , GPS-collars etc.



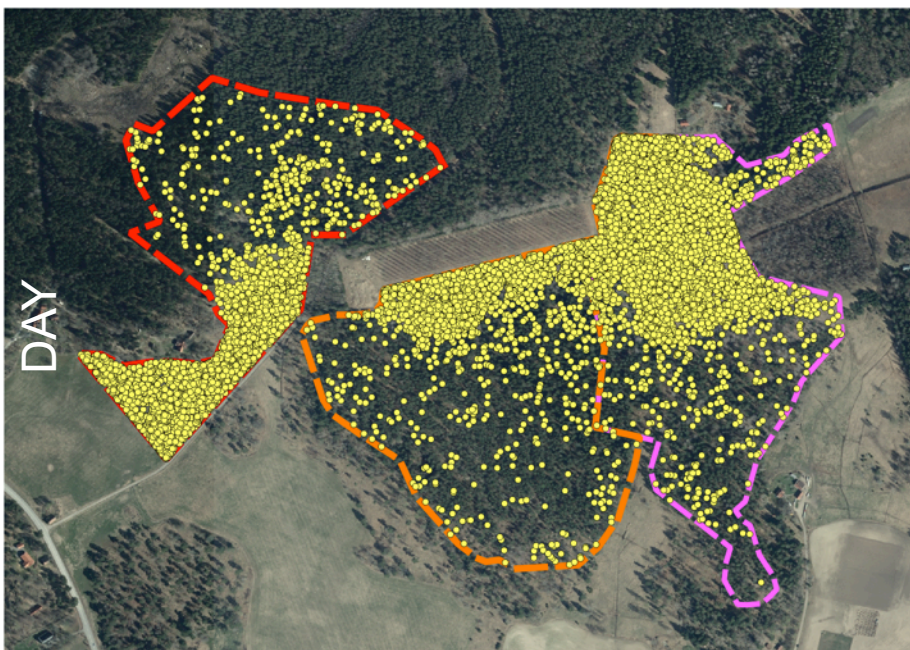


GPS-collar on the horses

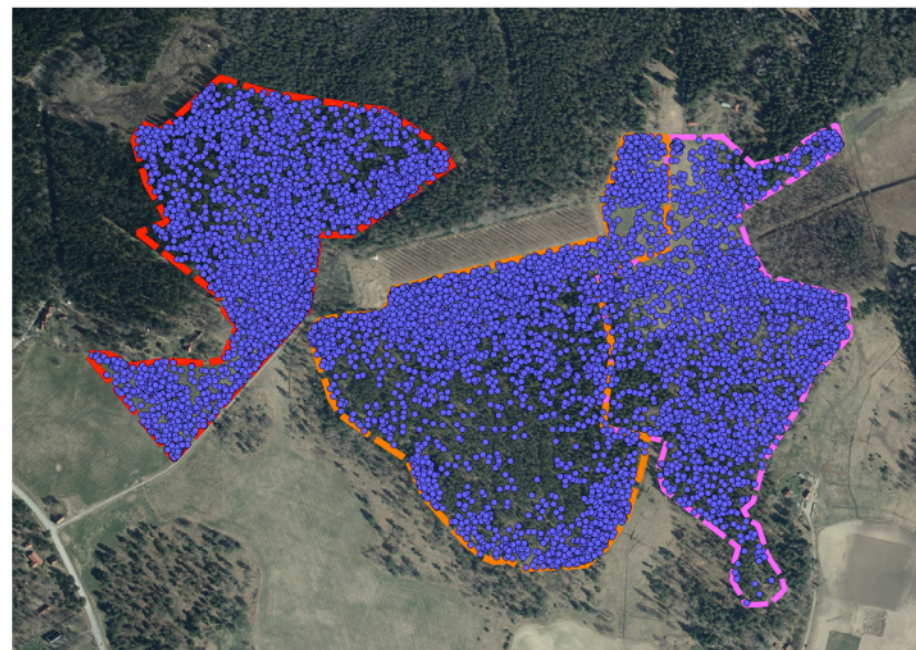
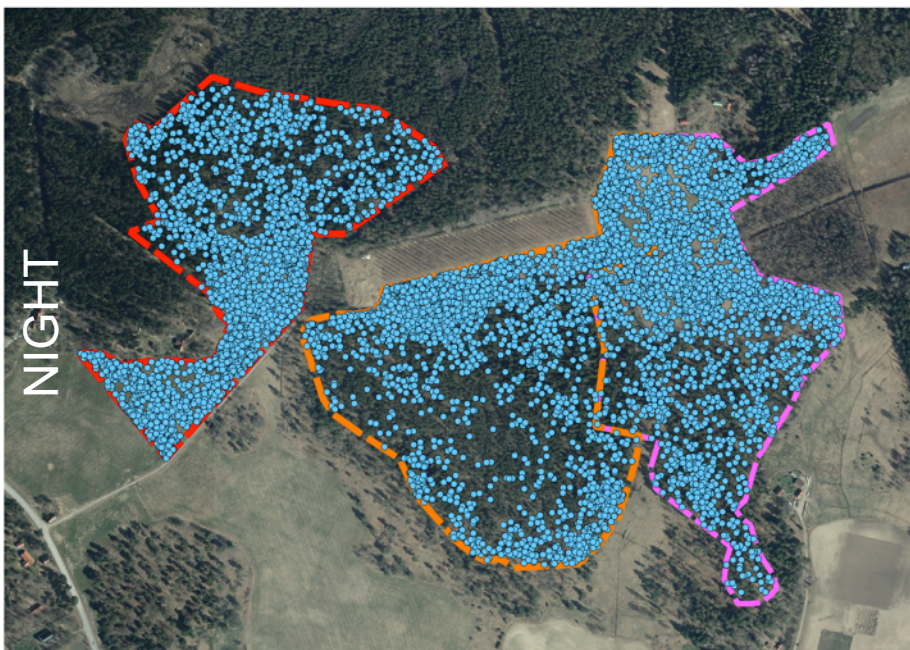
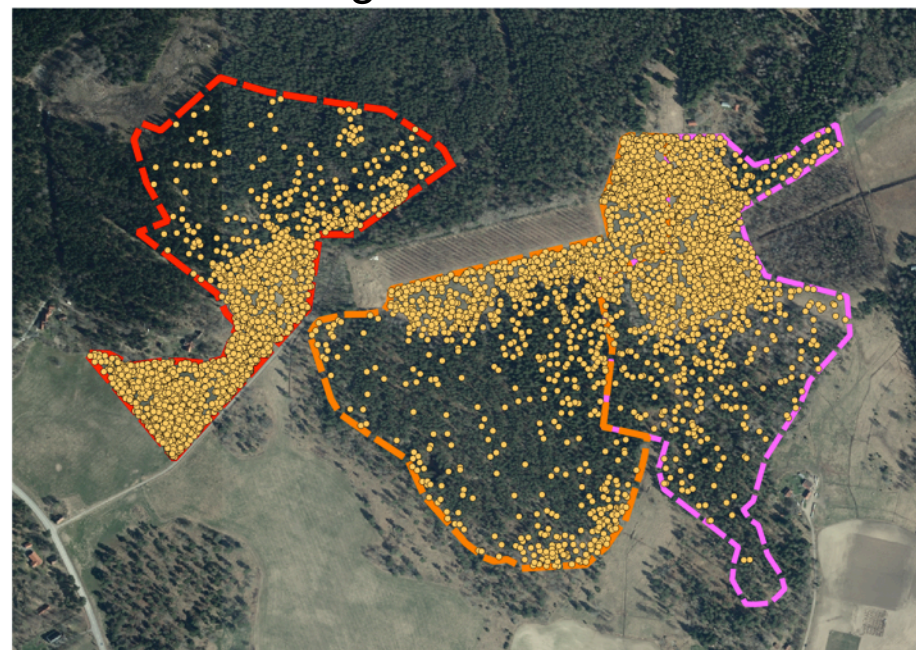


- 2 horses with collars in each fence
- Every 15 min all year round
- Results show that the forest is an important habitat although lay is used more

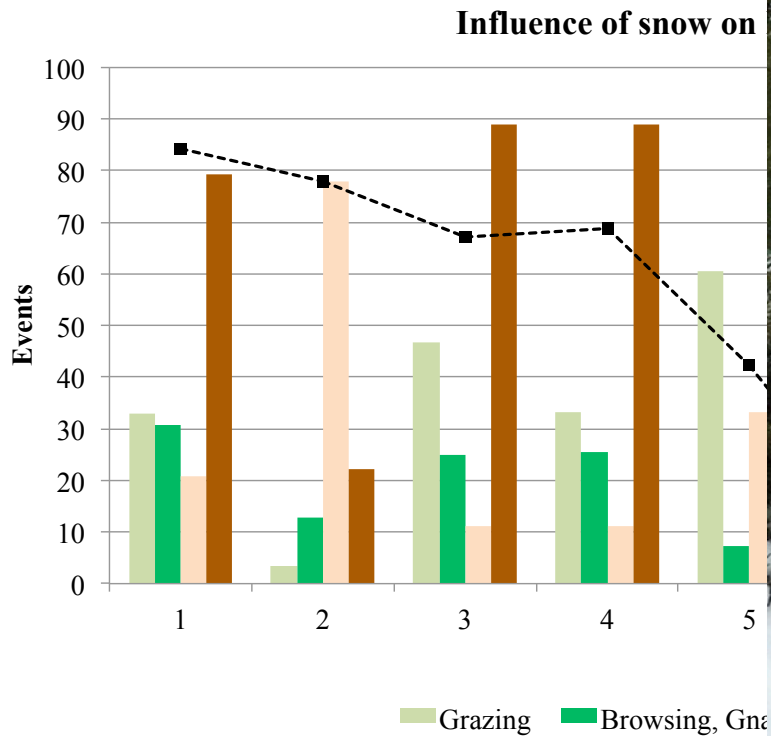
Growth season

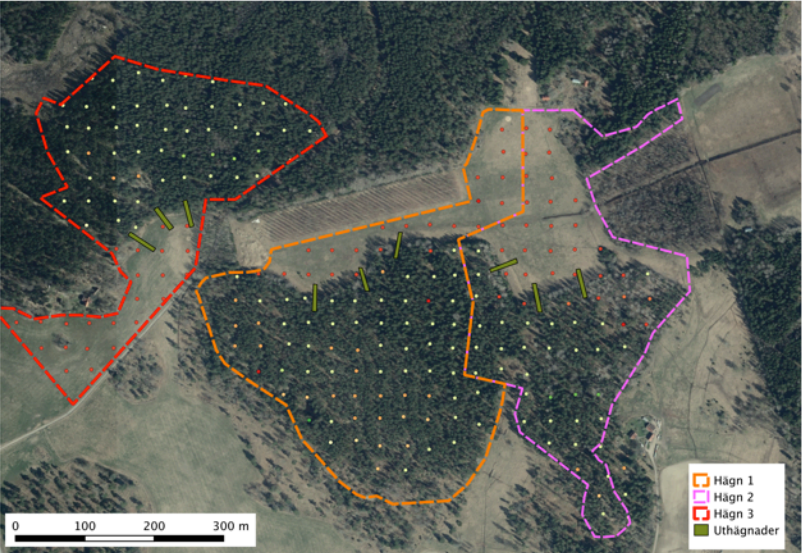


Non growth season

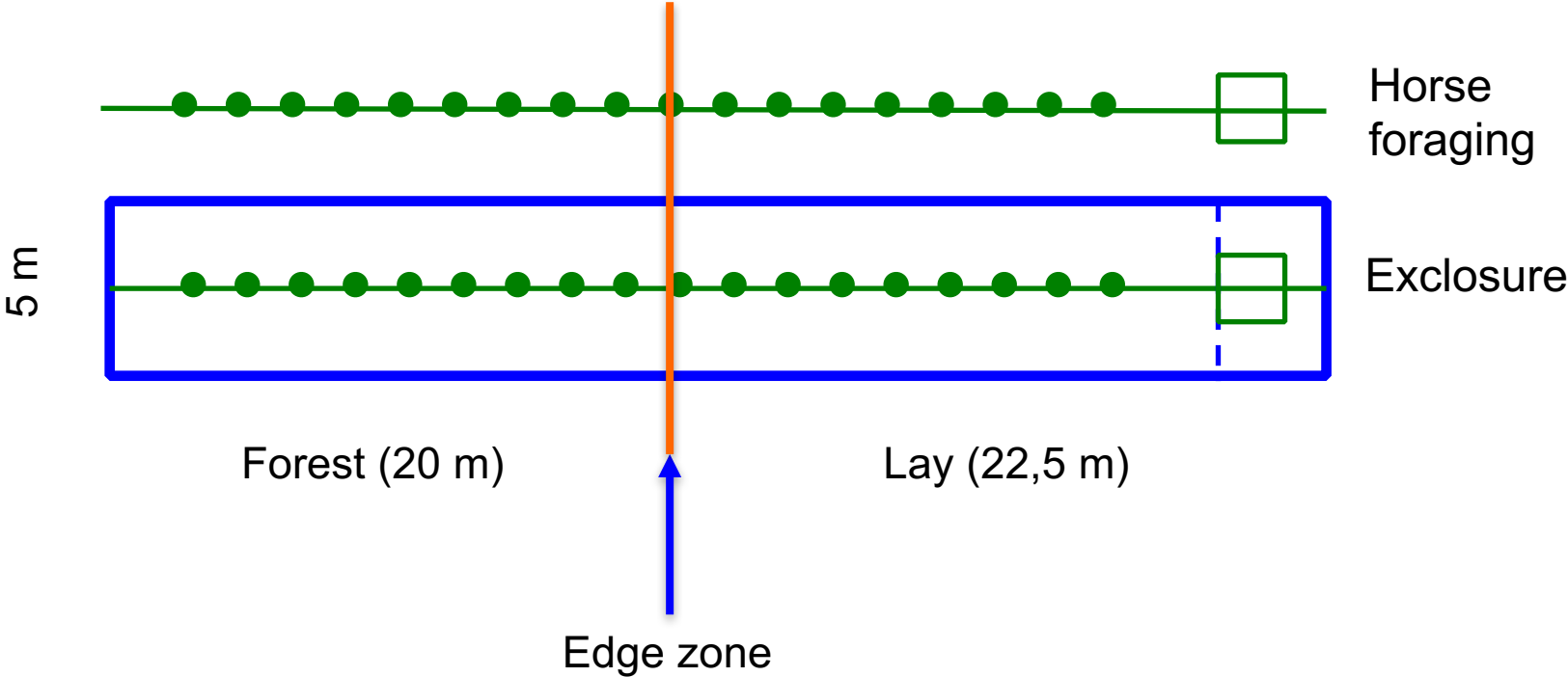


Behavioural observations Snow, ice and forage





Exclosures (control areas)



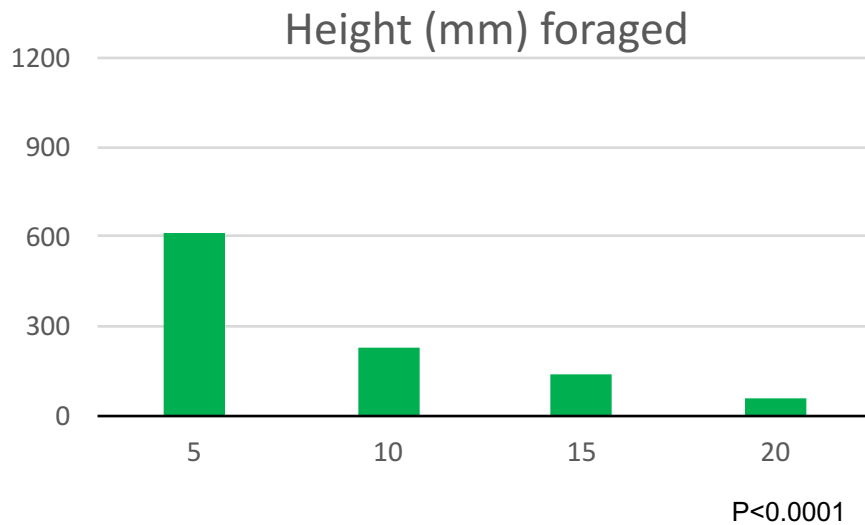
July 2015



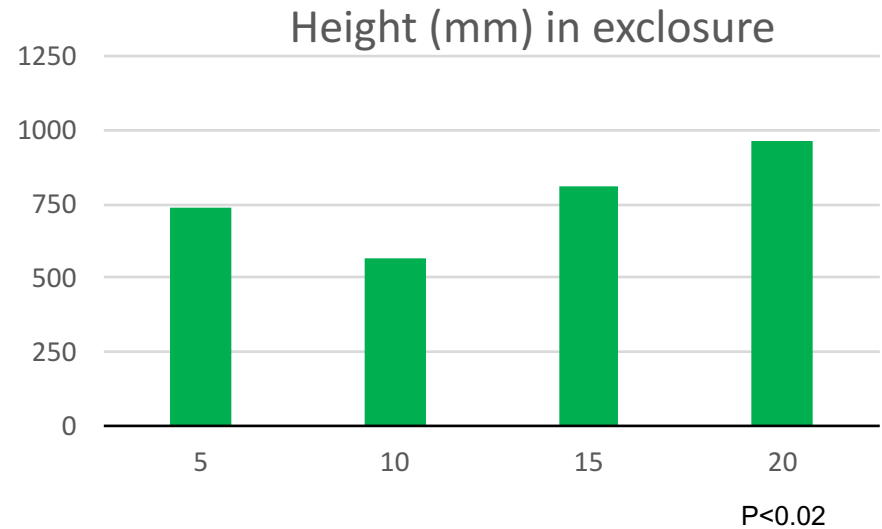
July 2016



Foraging on shrubs and trees in lay exclosures



Mean height foraged trees = **30 ± 6 cm**



Mean height non-foraged trees = **$80 \pm 7^*$ cm**

*P<0.0001

More grasshoppers in “rejected” areas



Area	# grasshoppers/katydid
Rejected area	$1,4 \pm 0,2$
Foraged area	$0,4 \pm 0,2^{**}$
Exclosure	$0,7 \pm 0,2^{*}$

Project participants



Anna Jansson, SLU (Project leader)
Carl-Gustaf Thulin, SLU (vice project leader)
Sara Ringmark (welfare)
Anna Skarin, SLU (habitat use)
Pablo Garrido Rodriguez (forest biodiversity)
Margareta Steen, SLU (veterinarian)
Kristina Dahlborn, SLU (physiology)
Erik Öckinger, SLU (biodiversity)
Lars Edenius, SLU (forest foraging)
Johan Höglund, SLU (parasitology)
Åsa Eriksson, SLU (animal keeper)
Ewa Alpmark, Russ breeding
Sven Björck, leg vet
Niklas Adolfsson, remote sensing, JLT
Masterstudents, internships...