



GLOBE Land Cover

Beaver

Lucie Starcevska, Darja Silan, Rasyte Gaidiene, Vidute Berteškiene, Jasmina Mlakar, Gregor Cerar, Nika Cebin,

Betka Burger, Marina Balažnec, Valle Morel

Jennifer Bourgeault

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BIG WHY?

- satellite picture vs reality on the field
- state of environment
- change over time
- consequences



Beaver 1

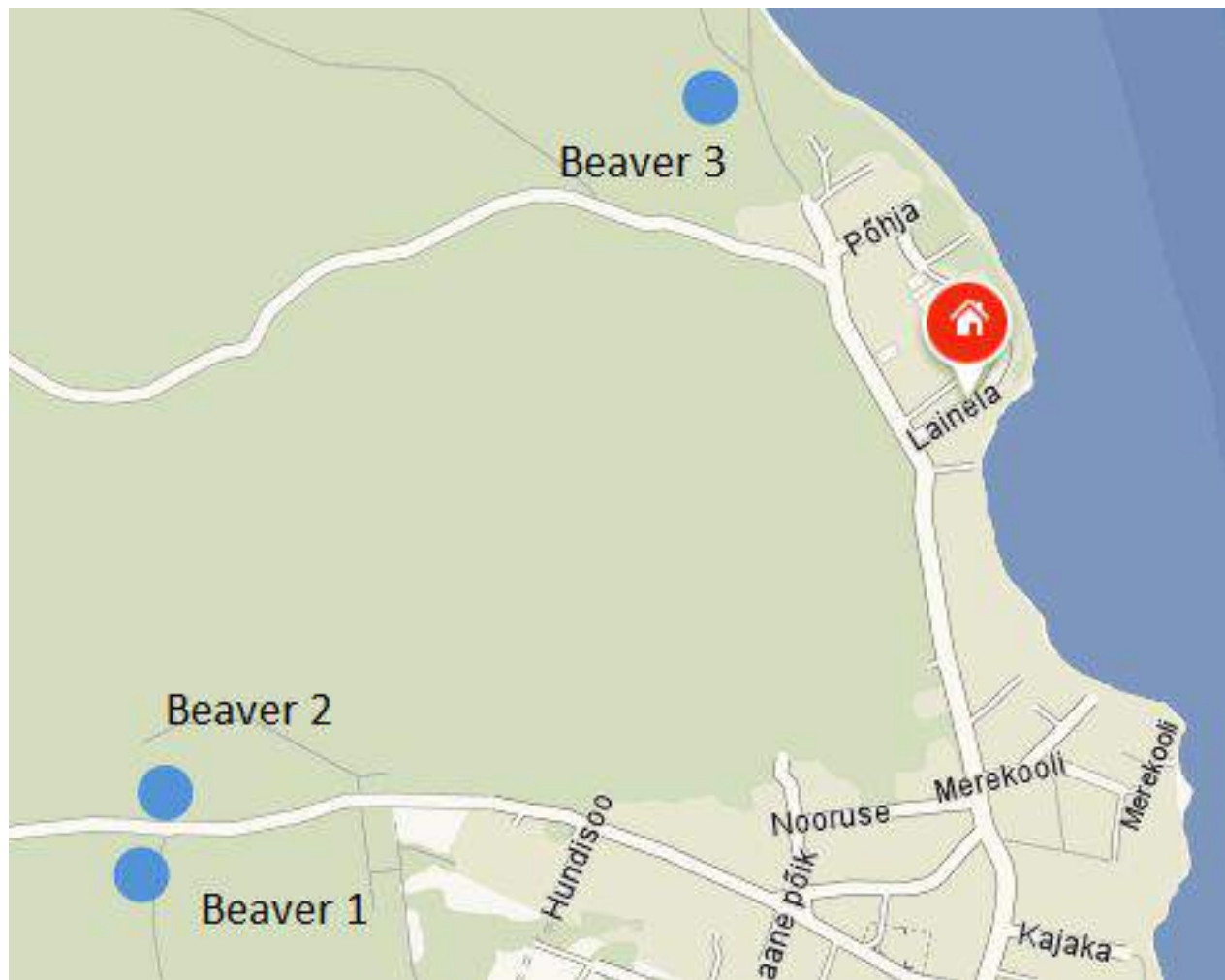


Beaver 2



Beaver 3





Research question:

What kind of differences in land cover can be found in three close sites with the same MUC?

Hypothesis:

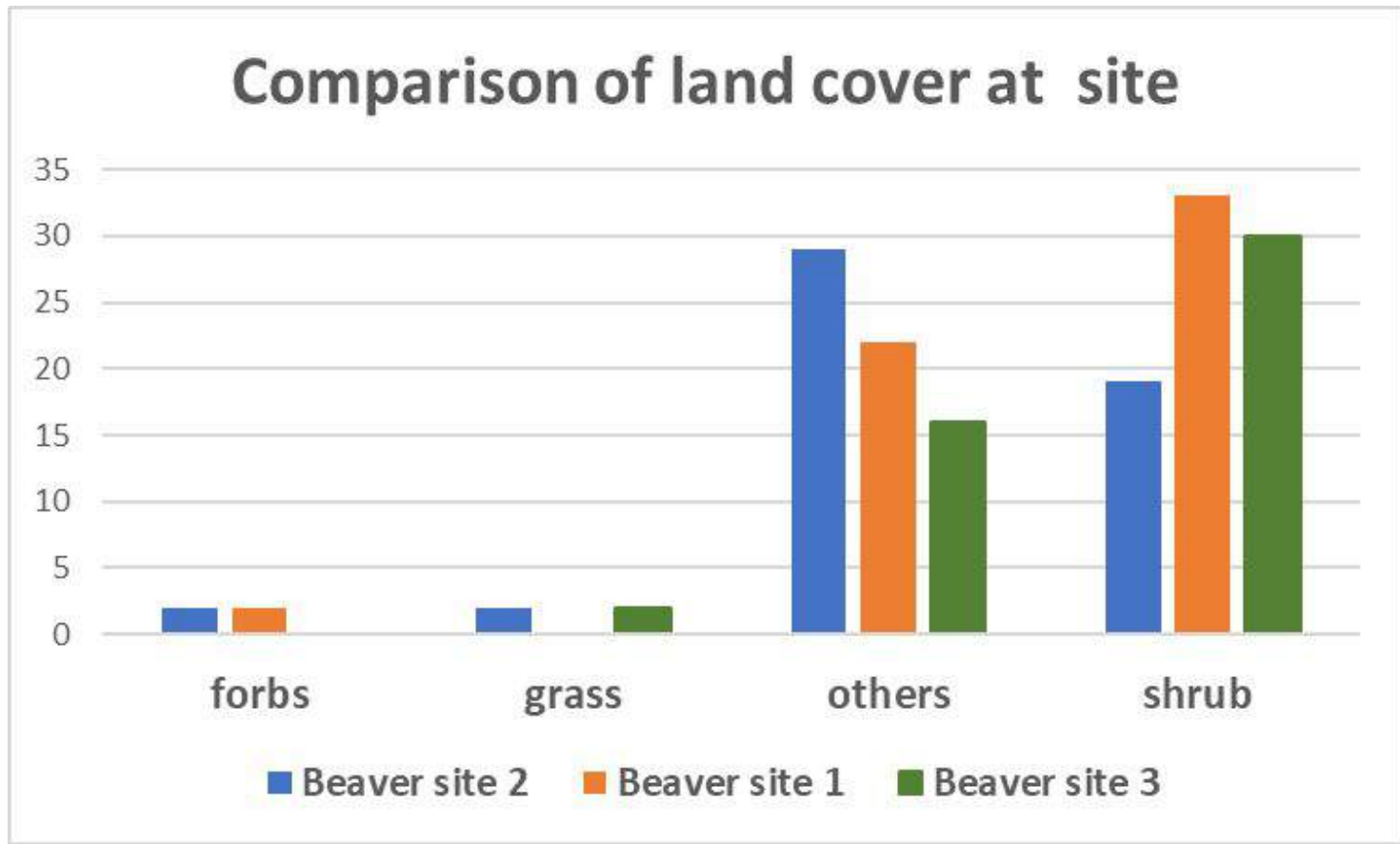
The same MUC can have different flora under the canopy.

Methodology and equipment

- Canopy cover and ground cover
 - soil temperature
 - species determination
 - Biometry protocol & MUC
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- thermometer
 - densiometer
 - measuring tape
 - flags
 - compass



Results



Comparison of MUC, canopy and soil temperature among three location

	Beaver 1	Beaver 2	Location 3
MUC Field Guide	0192	0192	0192
Canopy	70,00%	70,00%	69,00%
Temperature in shade at 30 cm depth	14 ⁰ C	15 ⁰ C	13 ⁰ C

	Beaver 1	Beaver 2	Beaver 3
Dominant tree species	<i>Picea abies</i>	<i>Picea abies</i>	<i>Picea abies</i>
Dominant understorey species	<i>Vaccinium myrtillus</i>	<i>Dryopteris filix-mas</i> <i>Equisetum sylvaticum</i> <i>Sphagnum sp.</i>	<i>Vaccinium myrtillus</i>
Other species	<i>Pinus sylvestris</i> <i>Sorbus aucuparia</i> <i>Maianthemum bifolium</i> <i>Melampyrum pratense</i> <i>Oxalis acetosella</i> mosses (e.g. <i>Hylocomium sp.</i>) <i>Dryopteris sp.</i>	<i>Pinus sylvestris</i> <i>Sorbus aucuparia</i> <i>Maianthemum bifolium</i> <i>Polytrichum commune</i> <i>Melampyrum pratense</i> <i>Oxalis acetosella</i> mosses (e.g. <i>Hylocomium sp.</i>)	<i>Acer platanooides</i> <i>Pinus sylvestris</i> <i>Sorbus aucuparia</i> <i>Maianthemum bifolium</i> <i>Melampyrum pratense</i> <i>Oxalis acetosella</i> mosses <i>Dryopteris sp.</i> <i>Tussilago farfara</i> <i>Ribes sp.</i> <i>Aegopodium podagraria</i> <i>Linnaea borealis</i>



Dryopteris



Equisetum



Vaccinium



Sphagnum

Comparison of soil type among three locations

Beaver 1



Beaver 2



Beaver 3



Conclusion and next steps

The canopy cover and dominant species are similar in all three locations

Understory differed for all three locations - soil type and microclimate difference

Hypothesis supported:

Site 3 - the highest biodiversity

Site 1 - the lowest biodiversity

Next step - soil measurements



Acknowledgements and Resources

MUC Field Guide

GLOBE Protocols - Biometry protocol

EESTI GLOBE

PlantNet App



Thank you for your attention!

