Land Cover

Juniperus communis L.

Käsmu 2022

OUR GROUP

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Imbi (teacher)

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(support)

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Our headquarter on the boulder

Eliise

Our reseach areas

Hypothesis

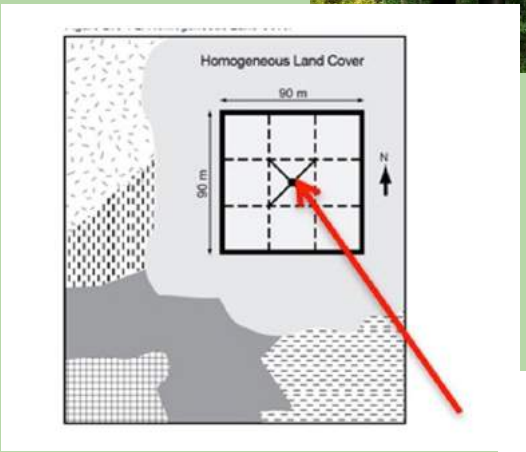
- The trees are higher and thicker in the forest
- Canopy cover is more dense in the forest
- There are more evergreen trees and less deciduous plants near the sea
- There are more rare plants in the coastal area

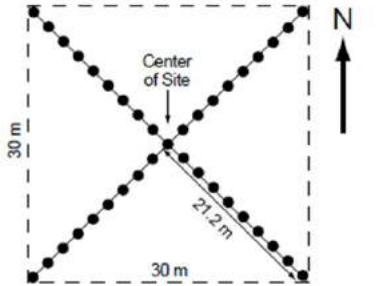
Tools

- Compass
- GPS receiver
- Smartphone
- Measuring tape (50m), rope
- Flags for marking (5pcs)
- GLOBE Observer app
- GLOBE Data Entry app
- Plant identifier
- MUC Field Guide
- Tubular densiometer
- GLOBE land cover protocol

Methods of investigation

1. **Canopy Cover measurements:** defining diagonals, looking up through densiometer at the canopy, recording a (+) or a (-).
2. **Describing Ground Cover:** if the vegetation was green (alive), we recorded a (G), if brown a (B)
3. **Identifying the plants** and dominant species
4. **Measuring height of the trees** with GLOBE Observer





Research area 1, near the sea

N: 59° 36’ 50”

E: 25° 54’ 48”

H: 10,3m

MUC code: 0192

25 plant species

Research area 2, boulder field

N: 59° 36’ 40”

E: 25° 54’ 23”

H: 20,6m

MUC code: 0192

15 plant species

Plants we found in the first research area:

Mustikas / Vaccinium myrtillus / European blueberry
Piibeleht / Convallaria majalis / Lily of the valley
Palu-härghein / melampyrum pratense / common cow-wheat
Harilik jänesekapsas / Oxalis acetosella / common wood sorrel
Ahtalehine põdrakanep / Epilobium angustifolium/ Chamaenerion angustifolium
Karutubakas / Pilosella officinarum/ Pilosella Hill
Muulukas / Fragaria viridis / creamy strawberry
Sügisene seanupp / Leontodon autumnalis/ Scorzoneroides autumnalis
*Roomav madar / Galium aparine / **sticky willy***
Raudrohi / Achillea / yarrow
Harilik laanlill /Trientalis europaea / chickweed wintergreen
Võilill / Taraxacum / dandelion
Mets-tähthein / Stellaria holostea / greater stitchwort
Suur teeleht / Plantago major / Plantago major

Harilik pohl / Vaccinium vitis-idaea / mountain cranberry
Harilik teeleht / Plantago major /
Harilik Pihlakas / Sorbus aucuparia / rowan
Harilik Vaher / Acer platanoides / Norway maple
Kadakas / Juniperus communis / common juniper
Metsvaarikas / Rubus idaeus / raspberry
Harilik Mänd / Pinus sylvestris / Baltic pine
Everybody gangsta, til Kent starts spinning.

Valge Ristikhein / Trifolium repens / white clover
Hunditubakas / Hieracium / hawkweed
Mets-haruputk / Anthriscus sylvestris / mother-die
Harilik hiirehernes / Vicia cracca / tufted vetch
rahein / Dactylis glomerata / cock's-foot

Plants we found in the second research area:

Mustikas / Vaccinium myrtillus / European blueberry
Piibeleht / Convallaria majalis / Lily of the valley
Raudrohi / Achillea / yarrow
Põdrasamblik /Cladina/ quill lichen
Kanarbik / Calluna vulgaris / heather
Harilik kukemari / Empetrum nigrum / crowberry
Kuldvits / Solidago L. / goldenrods
Palusammal / Pleurozium schreberi / red-stemmed feathermoss
Kaksikhammas / Dicranum / wind-blown mosses
Laanik / Hylocomium splendens / glittering woodmoss
Põdrakanep / Chamaenerion / willowherbs
Mets-härghein / Melampyrum sylvaticum / small cow-wheat
Harilik harakkuljus / Linnaea borealis / twinflower
Kask / Betula / birch
Kuusk (beebi) / Picea abies / spruce
Hunditubakas / Hieracium / hawkweed

Harilik pohl / Vaccinium vitis-idaea / mountain cranberry
Kadakas / Juniperus communis / common juniper
Harilik Mänd / Pinus sylvestris / Baltic pine
Everybody gangsta / til Kent starts / spinning

Polypodium vulgare
Common polypody

Results 1	Research area 1, near the sea		Research area 2, boulder field	
Tree Canopy				
Trees	50%		90%	
Evergreen	84%		100%	
Deciduous	16%			
Pinus sylvestris	Tree height	Circum-ference	Tree height	Circum-ference
Tree 1	19m	196cm	18m	69cm
Tree 2	23m	164cm	19m	94cm
Tree 3	22m	125cm	18m	67cm

Results 2	Research area 1, near the sea	Research area 2, boulder field
Ground Cover		
Green	84%	89%
Brown	16%	10%
No vegetation	0%	1%
Graminoid	5%	1%
Forbs	20%	19%
Other green	5%	20%
Shrubs	15%	10%
Dwarf shrubs	55%	50%

Conclusion

- The tallest and thickest trees grew near the sea.
- The canopy cover is denser in the forest.
- In our research areas was more evergreen trees in the forest
- We found one rare plant in the forest, on our trail.

3 hypotheses were not confirmed.

Kent`s hat

Before

Progress

After

Used literature

- Maa-amet
- Globe BIOMETRY - Canopy Cover and Ground Cover
- Expedition photos: I. Henno

THANK YOU
FOR YOUR ATTENTION