

Exploring the soils of Käsmu peninsula

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Research Questions and Hypotheses

Research Questions

- 1) Do different soil types occur in our selected small area?
- 2) How does the type of soil affect on flora?
- 3) How large is the variation between the grain size distribution of single horizons and the site average?

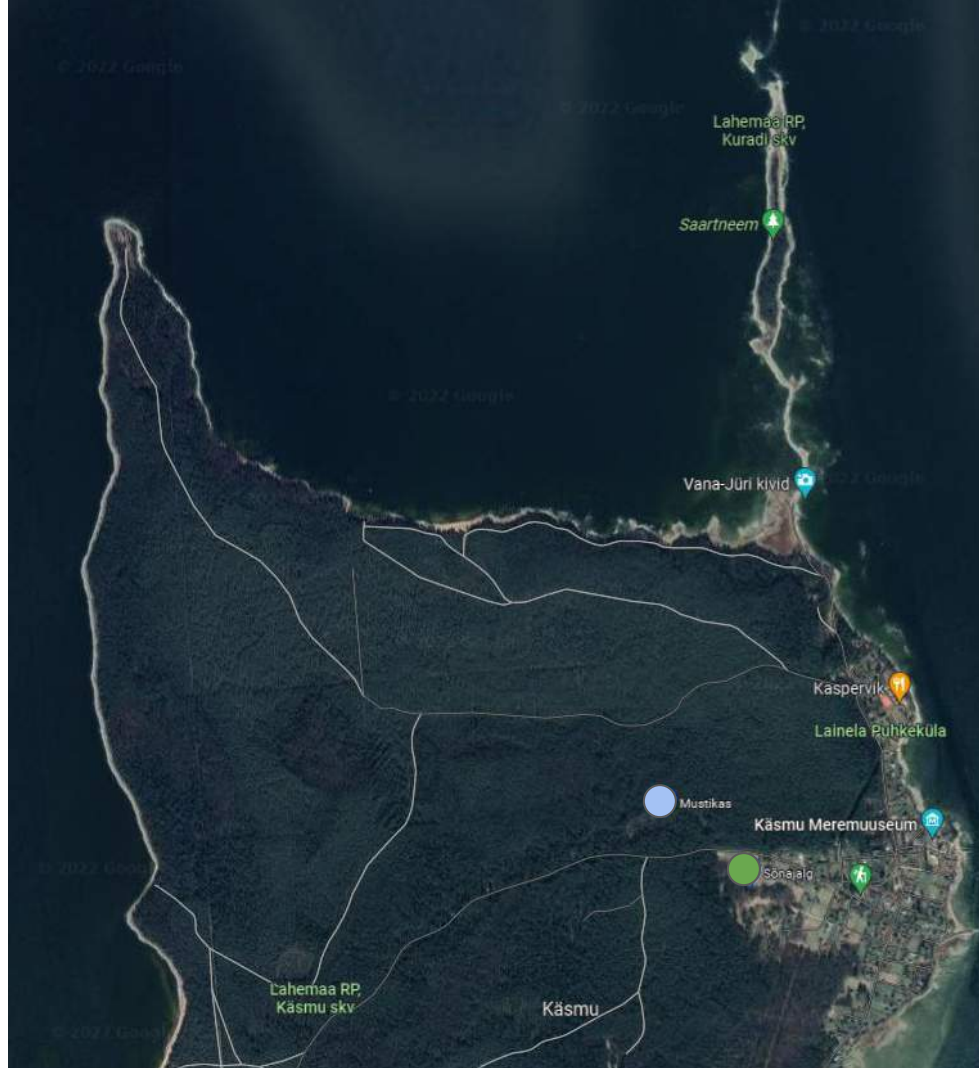
Hypotheses

- 1) We will find different kind of soil types of Käsmu peninsula.
- 2) The soil type is affecting the flora that grows on it.
- 3) Different soil horizons will have different grain size distribution.

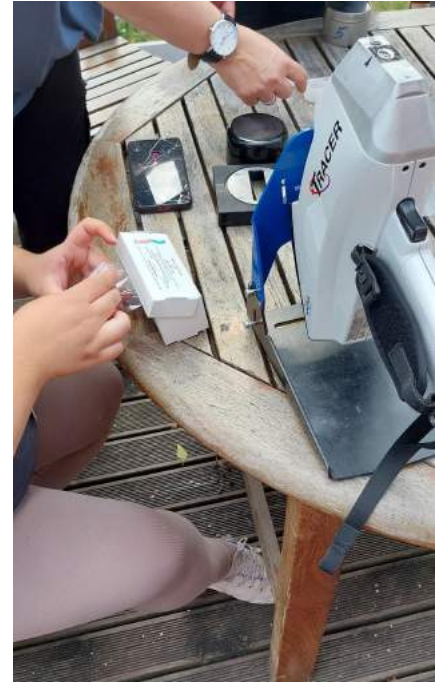
Research sites

We had 2 research sites:

- the first site was called “Blueberry” (mustikas)
- the second site we named “Fern” (sõnajalg)



GLOBE pedosphere (soil) protocol





Site “Blueberry” plants and trees in dry boreal forest

Trees

1. *Pinus sylvestris*
2. *Picea abies*
3. *Sorbus aucuparia*

Plants

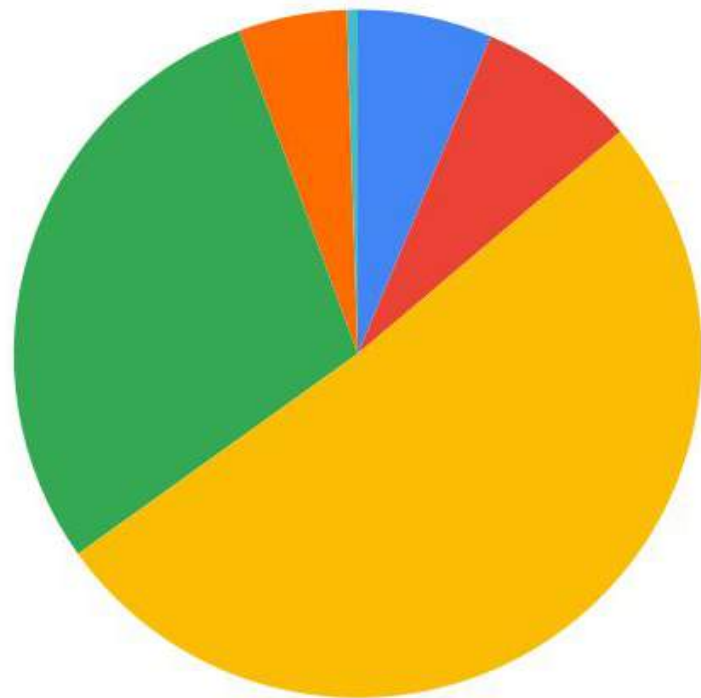
1. *Vaccinium myrtillus*
2. *Oxalis acetosella*
3. *Pleurozium schreberi*

View around excavation site “Blueberry”

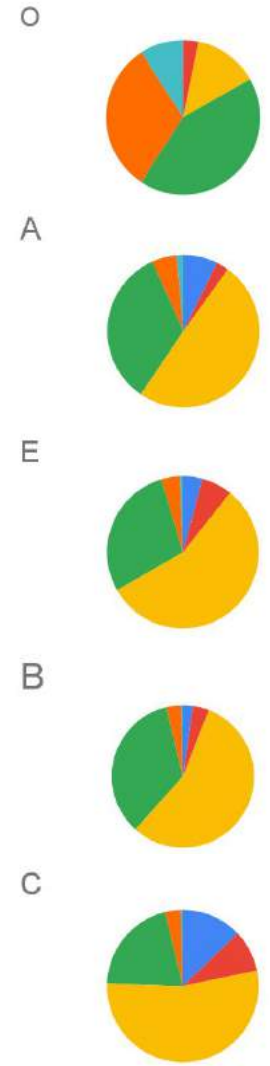


Soil horizon	Thickness (cm)	Munsell Soil Color
O	3	
A	7	5YR 4/2
E	5	75YR 4/2
B	9	10YR 5/4
C	>24	10YR 7/4





- >3.35 mm
- 3.35-2.00 mm
- 2.00-0.5 mm
- 0.50-0.25 mm
- 0.25-0.125 mm
- 0.125-0.063 mm





Sites “Fern” plants and trees in paludified forest

Trees

1. *Alnus incana*
2. *Sorbus aucuparia*
3. *Salix*

Plants

1. *Dryopteris filix-mas*
2. *Urtica dioica*
3. *Equisetum*



View around excavation site “Fern”



Soil horizon	Thickness (cm)	Munsell Soil Color
O	4	
A	14	10YR 2/2
E	18	10YR 4/3
C	> 9	5Y 4/2



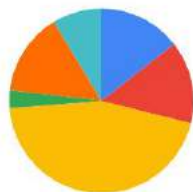


-  >3.35 mm
-  3.35-2.00 mm
-  2.00-0.5 mm
-  0.50-0.25 mm
-  0.25-0.125 mm
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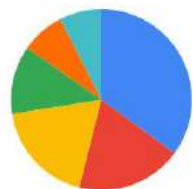
O



A



E



C



Conclusion

- ✓ We found two different soil types on our study area as we predicted.
- ✓ We found out that the type of soil affects the flora because we identified different plant and tree species on these sites.
- ✓ We proved that different soil horizons have different grain size distribution compared to site average.



Thank you for listening!