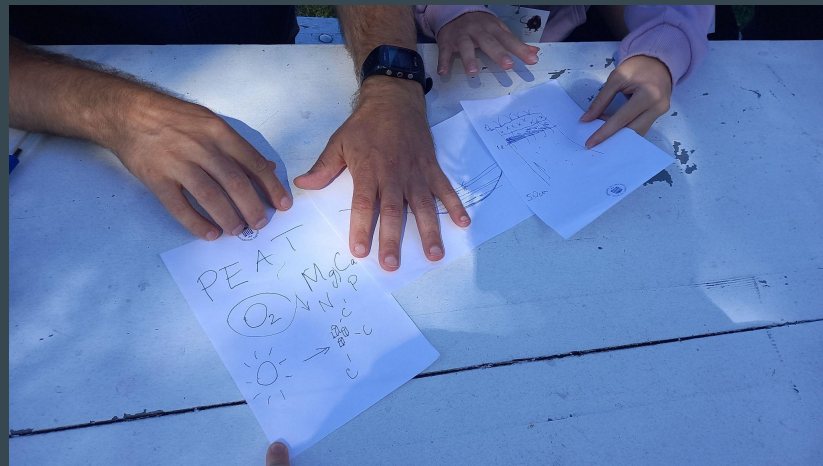




PEAT AND PLANTS

I like it Picasso



Research hypotheses

1. More pines grow in wetter peatlands.
2. Plants that tolerate water-logging, grow on deeper peat.
3. Plants that tolerate a low level of nutrients grow on deeper peat.



Color matching the soil

Site locations



Tools that we used

- GLOBE soil data sheet,
- GLOBE data entry app,
- Russian-type peat corer and measuring tape for soil profile
- Hand held soil moisture device, ProCheck, by decagon devices,
- Hand held soil O₂ sensor, Fibox 4 by PreSense,
- Fluorescence x-ray device for calcium, magnesium and phosphorus content,
- Google Lens for plant species identification,
- Taimenimed.ut.ee for scientific plant names,
- Taimede väli-määraja plant identifier book for tolerance values of the species.

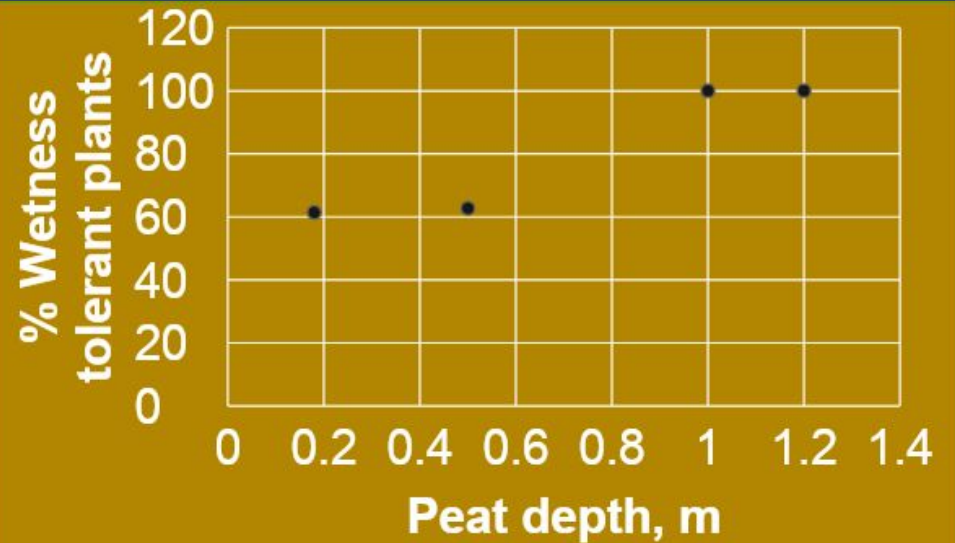
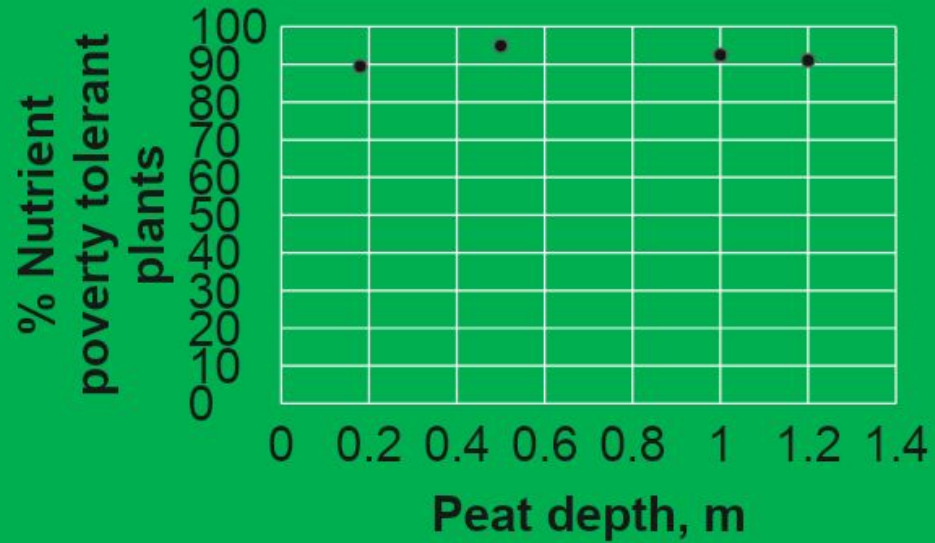


Results

- Peat depth of 2 and 3 is bigger, because they don't have sand base.
- 2-3 have 3x bigger moisture than 1-4 which are similar.
- Low level of oxygen in 2 and 3 and higher in 1 and 4.
- Ca and P are higher in 1 and 4.
- Mg is the highest in 2 which is surprising. And 1 is also high as expected.



Plants according to peat depth



Conclusions

1. The first hypothesis is false. Pines grew equally in all 4 sites.
2. The second hypothesis is true, because in the two sites with deep peat we saw more plants that tolerate water-logged conditions.
3. The third hypothesis is false, because the sites have similarly low amount of nutrients and a similar share of plants that tolerate a low level of nutrients.



Thank you for listening

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