

Today, we visited the nature place at 4PM in the afternoon. It has been very warm since we last visited the nature place, and it is beginning to look extremely different. The route to the nature place is beginning to also look very different, with much more bush (blueberry bushes) and smaller greenery beginning to line the paths where large amounts of snow lay before. Water is beginning to appear in small pools or streams, and the ground has become quite soggy in places. The sounds of birds can be heard more often while walking to and visiting the nature place, which appears to be in the births of much life for shrubs, new sprouting branches and shoots, lichens, and mosses.

Much of the ground is no longer covered in snow and reveals a rich soil below covered with bark, woodchip, and dry leaves beginning to decay.



## BIOTIC FACTORS:

### ANIMALS:

As there is very little snow left, it was difficult to look for animal tracks. None were seen. There seemed to be more birdsong than the last time, one of these was definitely from brown tits which were also observed. The other sounded to be from a blackbird.

### PLANTS:

Small shoots are beginning to sprout from tree roots.



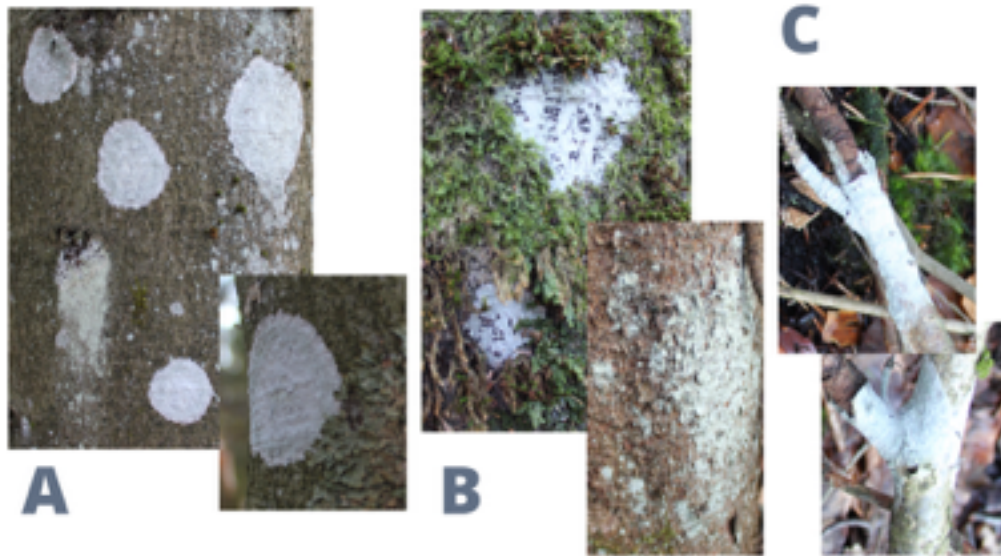
The blueberry bush is denser than the last visit. It is interesting that the large bush growing on the bank hardly has any leaves at all, whereas the small bush growing on the mossy tree stump close to the water has many leaves:





**LICHENS:**

These white lichens have become larger and distinctive since our last visit.



Comparing the white lichen, it can be seen that B and C are fluffier than A. It is also apparent that they are slightly more green than A. It seems that B and C could be the same species and exhibit qualities of the lichen *phlycits argena*. Closer inspection of this species online shows that it can become quite green/brown with age. This is something that we can observe over the coming weeks.

It seems that these specimens can all be described as having an **upper surface pruinoise**- Pruina are superficial chemical deposits, usually whitish and usually formed from calcium oxalates, giving a frost-covered or floury appearance.

These next lichens (D,E,F) are described as **foliose lichens**, these are the most common type of lichen and exhibit leaf like structures, are usually grey green, grow in relatively circular shapes, and are always attached to the surface:



Lichens may also be characterised by the colour of their **upper surface**. The pale green surface colour of F is due to the low concentration of *usnic acid*.

**Squamules:**

Squamules are small flakes or scales of a lichen, often rounded, ear-like, or lobed, these units typically clustered into a colony. All three of these foliose lichens (D,E,F) exhibit squamules.

**Stalks**

Stalks are a cylindrical or roundish growth form, with tips that can be pointed, rounded, or with cups. Specimen F (*Cladonia*) exhibits pointed stalks.



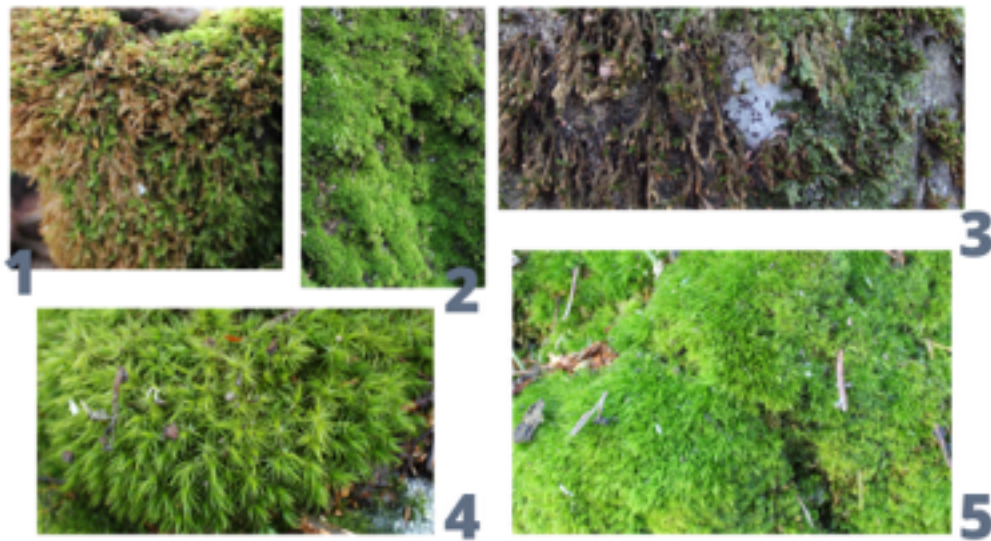
(F)

**Cilia**

None of the lichens present produce cilia, which are hair-like projections, usually applied to threadlike multicellular marginal hairs. Cilia may either be present on the margins of foliose species, or projecting from branches as short, sharp, branches or spines in fruticose species.

**MOSS:**

It appears that there may be 5 species so far:



While 2 and 5 seem very similar, it appears that the hair of 5 may in fact be straighter. This will need to be inspected more closely when at the nature place the next time.

Moss 4 is very distinctive with its fingerlike tufts and is either a *pogonatum* or *polytrichum*.

Moss 1 and 3 both appear to belong to the genus *Homalothecium*.

**FUNGI:**

It is still early in the season for fungi, and there were none present.

**ABIOTIC FACTORS:**

- Temperature: +9°
- Rain-/Snowfall: None
- Wind speed: 25km/hr
- Pressure: 1009 mBar
- Ground: Melting snow, soggy, dry decaying leaves
- Humidity: 69%