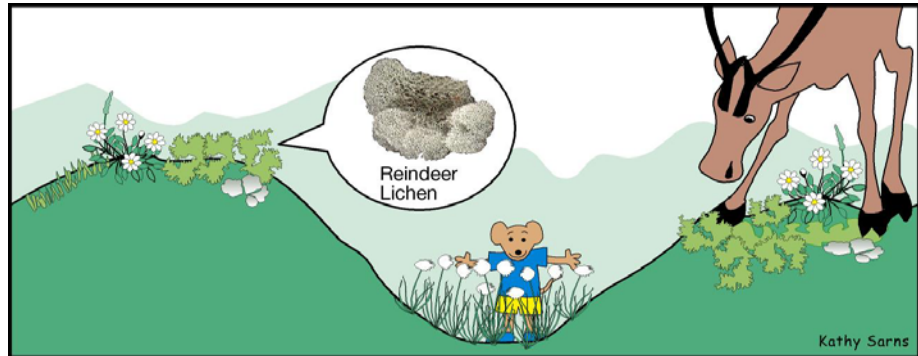


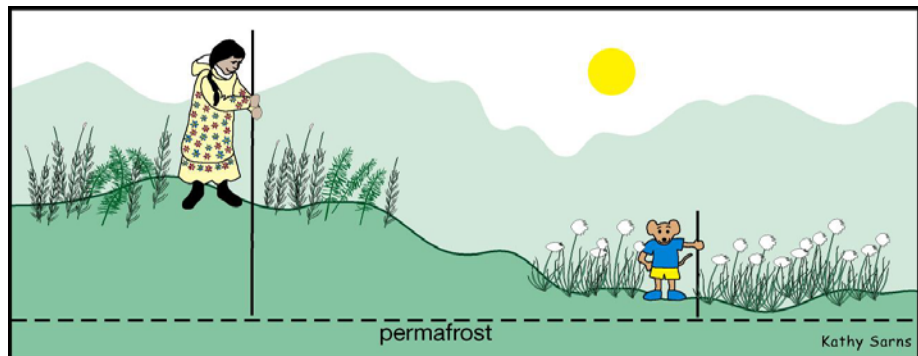
Tundra Observations

A walk through the tundra can tell you about the history of characteristics of the area. Species and condition of the vegetation can give clues to the areas living and non-living components and to what events have taken place in the past.

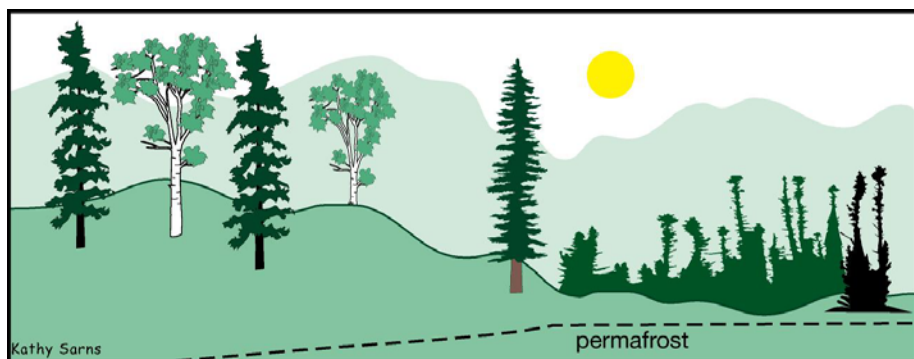
One of the interesting things about tundra is that areas can be dry, wet, or both. Wet tundra supports mosses and sedges. Dry tundra has dry as and reindeer lichens. In some areas the dry plants will grow on top of hummocks and the wet plants in the low areas between.



Horsetail plants (*Equisetum*) have deeper roots than most tundra plants. If horsetail is present, permafrost is not very close to the surface. You can use a probe to find the permafrost layer. Push the probe straight down through the tundra. Depending on the time of year, permafrost may be a few inches or a few feet below the surface.



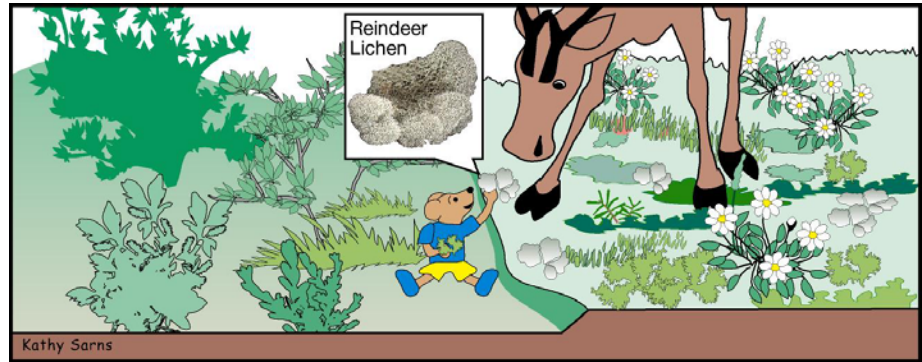
If trees are present on the landscape, look for permafrost under the black spruce. There will be no permafrost under big healthy aspen or white spruce.



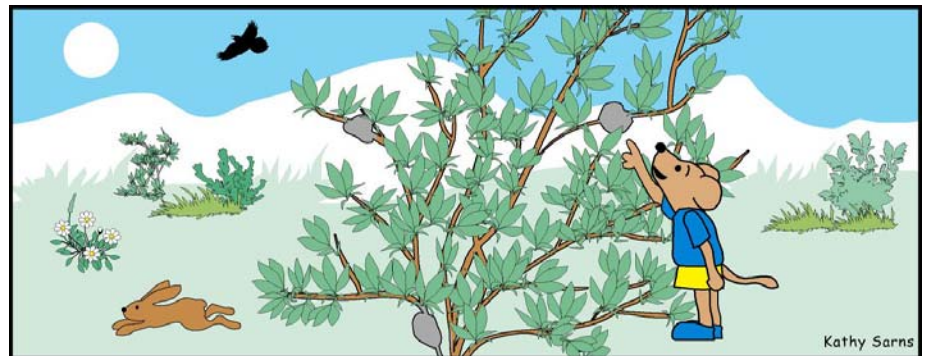
Moss and lichen grow slowly; a thick mat of either plant indicates that the area has been undisturbed for a long time. This thick mat makes it hard for other plant seeds to grow.

Tundra plants reproduce vegetatively, meaning they re-sprout from roots. After a mat is removed by fire,

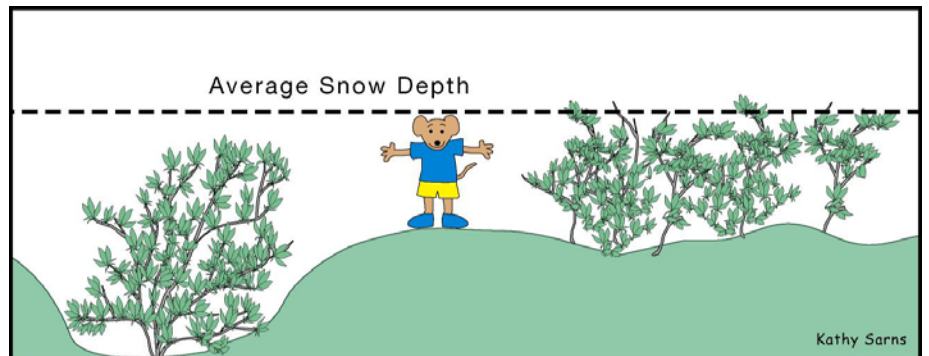
and the mineral soil is exposed, plants seeds can sprout more easily. Any disturbed ground will have different tundra plants than in an area of no disturbance.



Galls, or knots of wood caused by insects, can often be found on willow. Rusts on shrubs that are damaged by disease in the tundra can also be seen.



On the tundra, average annual snow depth can be estimated by the shrub height. Tundra shrubs do not send branches out higher than the snow cover as the wind and snow rips them off or kills the plant altogether. Usually there are taller shrubs in gullies along creeks and behind bluffs where they are protected from the winter.



Grazing sign on sedges and shrubs may be seen. Caribou and lemmings usually graze the plants for the base, so often evidence can only be seen when looking up close.

