

ITEX meta-analyses on exp. warming x respiration, methane, microbes, vegetation

Guidelines for 2nd survey round

Plant height measurements

REQUESTED FROM ALL SITES

To obtain a uniform trait measurement for community height and to derive biomass/productivity estimates in each plot, we ask you to collect **9 plant height measurements evenly distributed across each plot**. Please take the measurements within the **(permanently marked) subplot** that was/will be used for vegetation community measurements. If you use the **pinpoint** method, measure the height of the **first hit** at each sample location. If you use **another method**, measure plant **height without extending** the plant at each sample location.

The sample locations are fixed as follows:



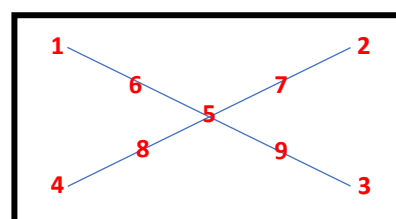
= subplot used for vegetation community measurements



= 2 diagonals of the subplot

1

= 9 locations for sampling plant height



Plant height should be measured to 1 decimal accurately with a ruler. Focus on **vascular plants** only; if your system is dominated by non-vascular plants (e.g. >80% mosses), still measure plant height where vascular plants are present.

- Collect 9 plant height measurements spread evenly across each plot
- Measure plant height from the fixed 9 sample locations (see figure above)
- Measure the height of the first hit if you use the pinpoint method
- Measure the height without extending the plant if you use another method
- Focus on vascular plants only

Point frame measurements

REQUESTED FROM SITES WITH NO PREVIOUS VEGETATION COMMUNITY DATA:

Please follow the point-frame protocol from the [ITEX manual](#).

Supporting environmental info

If you are collecting samples to provide missing data for the Supporting environmental info (for which thank you!), please collect as though you would do it in your own way. There are **no specific protocols** to follow here. The following supporting environmental info are requested, although we will work with whatever you have or can provide us with. For the requested data based on actual samples, we prefer to have data that were **taken as close in time to the flux measurements** as possible.

Requested plot-level data based on actual samples (preferable from the year of respiration data, but if not available please state in which year it was measured):

- Air Temperature, Soil Temperature (°C)
- Soil moisture/Water table
- Soil C characteristics
- Soil pH
- Permafrost (continuous/discontinuous/no)
- Permafrost active layer depth (cm)
- Organic layer depth (cm)
- Soil organic matter (%)
- Bulk density (g/cm³)

Requested data not based on additional samples:

- Air Temperature (°C) (growing season and annual average T)
- Soil moisture class (dry/mesic/wet)
- Parent material (sand/silt/clay/bedrock/unknown/other)
- Ca-content of bedrock
- Snow melt date (approximate date due to yearly fluctuations)
- Photosynthetically active radiation (W/m²)
- Ambient snow depth (m) (approximate date due to yearly fluctuations)
- Annual Precipitation (mm)