



**Stordalen Mire**  
a thawing terrestrial permafrost  
system

**Patrick Crill**  
Geological Sciences, Stockholm U  
Bolin Centre for Climate Research  
[patrick.crill@geo.su.se](mailto:patrick.crill@geo.su.se)



**ReadMe and reference file for Active Layer Water Table 03-17.xlsx file**

**Water Table measured in wells at sites marked in IsoGenieSite AL\_WTD\_MapsVisualNotes 200310.pdf**

**Active layer measured by inserting a metal rod into the surface. The original instruction page is included (p.3) in the pdf**

**all depths in centimeters (cm) below peat surface (i.e. peat or *Sphagnum* spp vegetation surface =0). Blank data in the Palsa or water table column means no water table observed**

**Staff gauge added July 2006 at the edge of a small pond in the fen visible from the shack palsa  
reported in meters**

**all other measures are in cm**

**usually updated by N. Rakos or site technician**

**2015 updated by Carrie McCalley**

**Prepared by P.Crill (patrick.crill@geo.su.se)**

## Water Table and Active Layer Depth Sampling

every 1-2 days measure the depth to the top of the water table  
(or depth of the overlying water)  
close to the labelled green spots on the previous page (6 places)  
revisit the SAME spot every time – boardwalk accessible is best

for water table it is probably best to make a small hole that you can  
revisit. Use the folding meter stick found in the shack.

for active layer depth use the probe. Just push it in until it cannot  
penetrate deeper.  
(usually left leaning outside the shack)

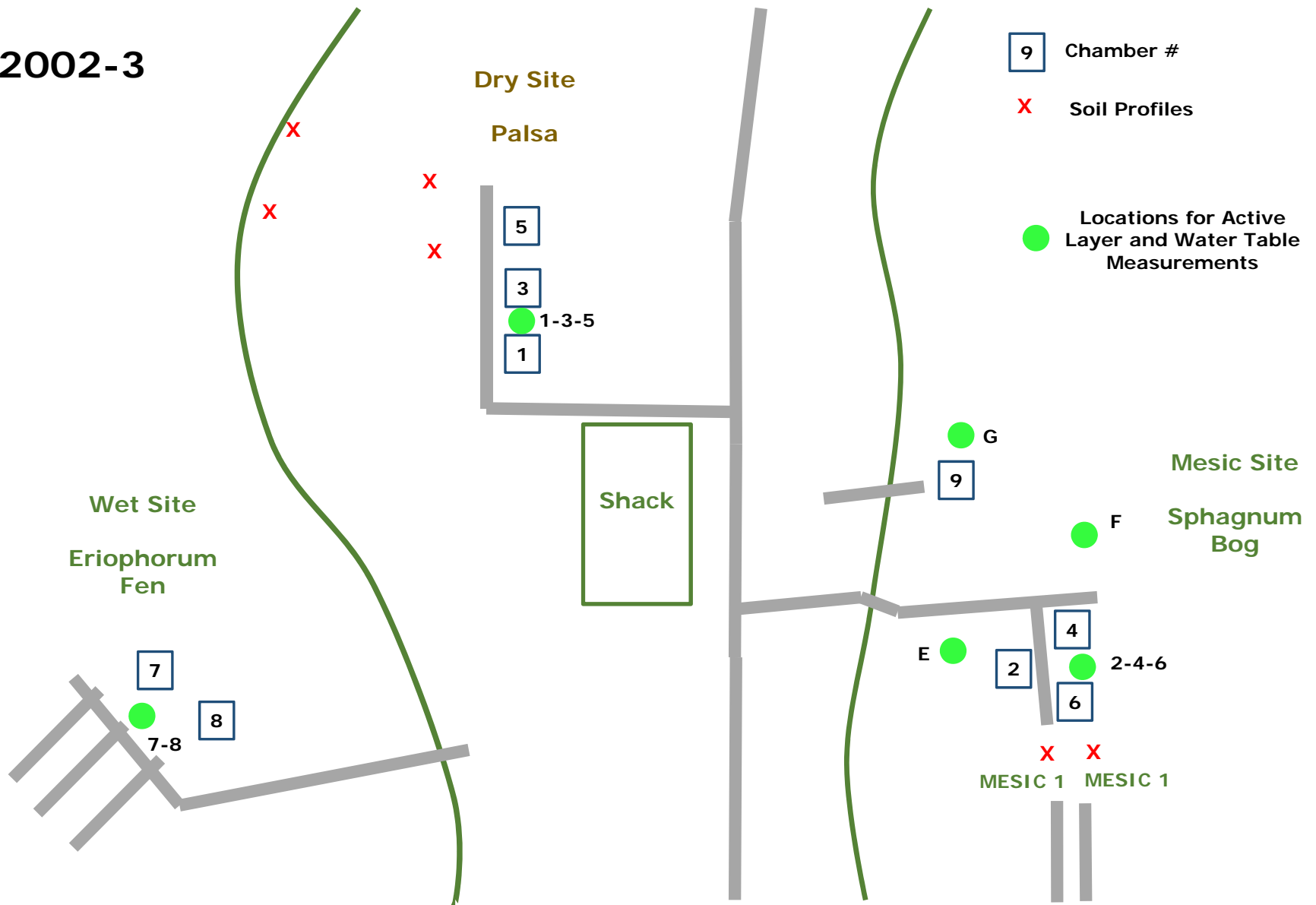
For both WT and AL depth cases, measure relative to the  
vegetation surface.

WRITE down the depths in the shack log book in ink NOT pencil.  
cross out mistakes so that the mistake is still legible

write in the log book EVERY time you visit the shack:  
initials of the visitors  
general weather conditions (sunny, warm, rainy, cloudy, etc)  
impressions or observations of the AC system and site  
ANYTHING you do or observe (animals, birds, people on the Mire, etc)

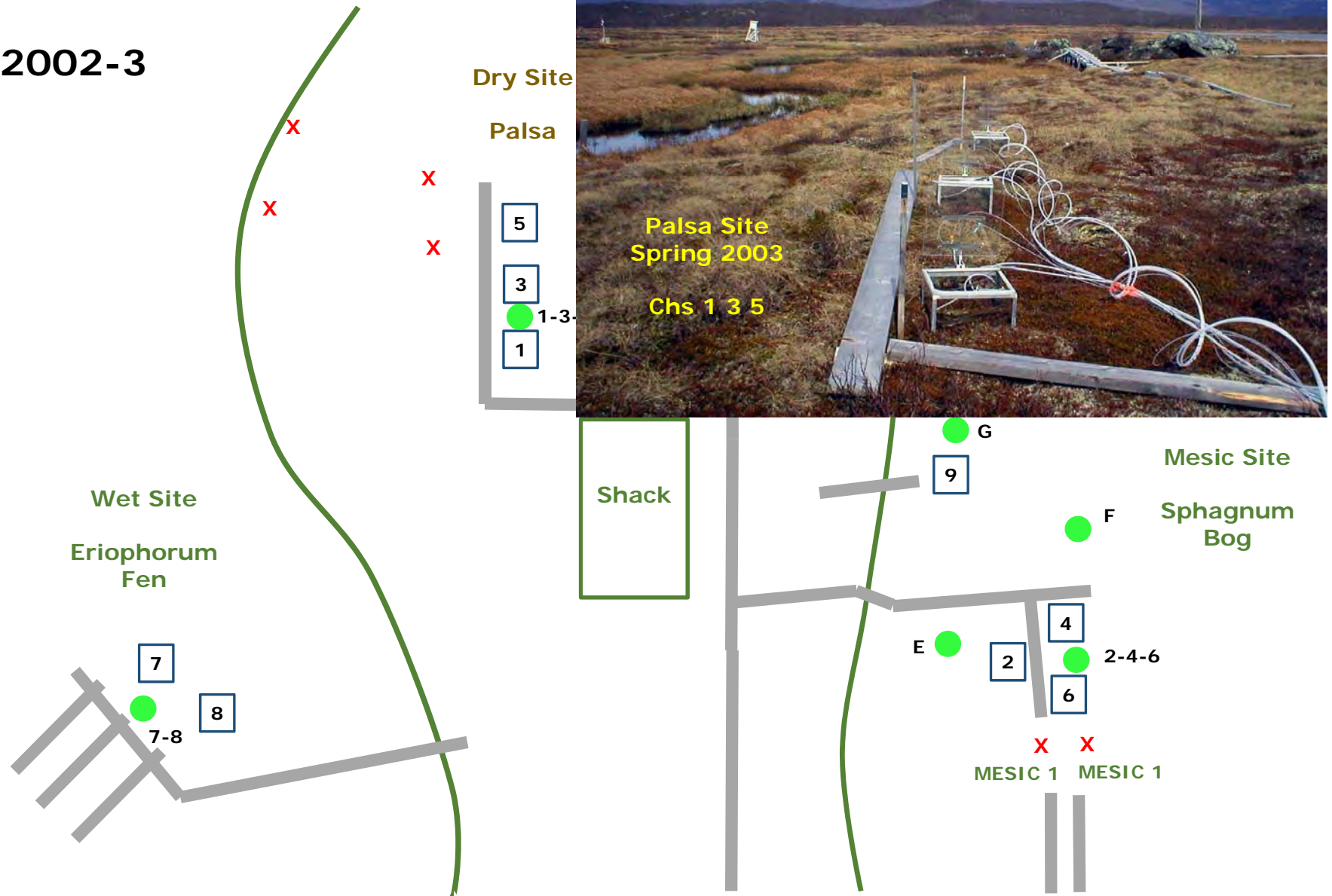
you can't write too much

2002-3



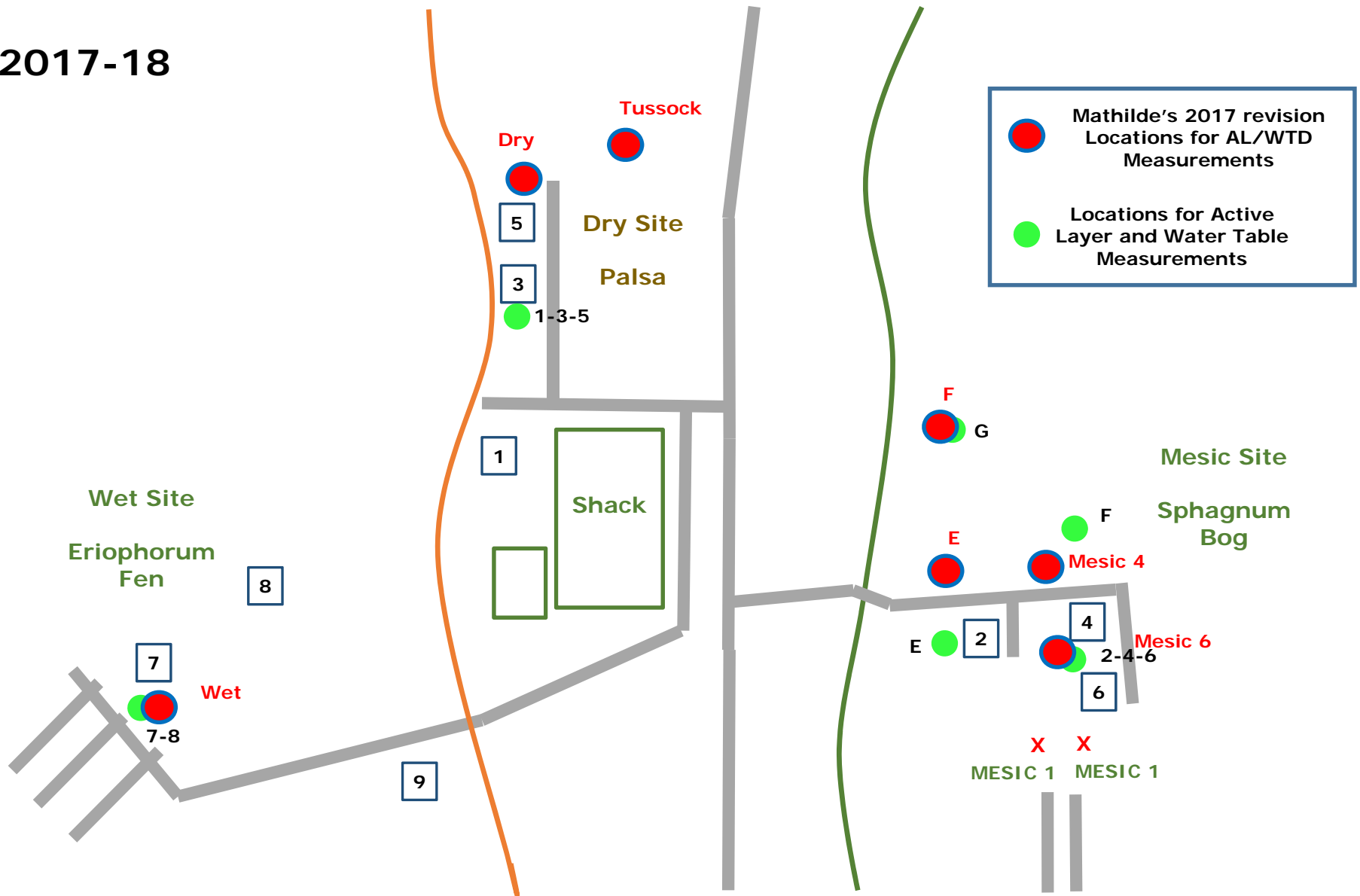
Approximate Locations of Shack, Boardwalk and Old Chambers 2002-2012  
And Active Layer and Water Table Measurements  
(these have remained roughly the same)

2002-3



Approximate Locations of Shack, Boardwalk and Old Chambers 2002-20012  
And Active Layer and Water Table Measurements  
(these have remained roughly the same)

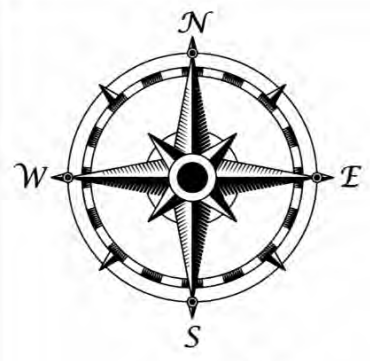
2017-18



Approximate Locations of Shack, Boardwalk and Old Chambers 2012-2018  
And Active Layer and Water Table Measurements  
(these have remained roughly the same)

# STORDALEN ACTIVE LAYER SITES 2017

● Mathilde's 2017 revision  
Locations for AL/WTD  
Measurements



TUSSOCK ●

DRY ●

WET ●

THE SHACK

F ●

*~Here be  
whimbrels~*



E ●

MESIC 4 ●

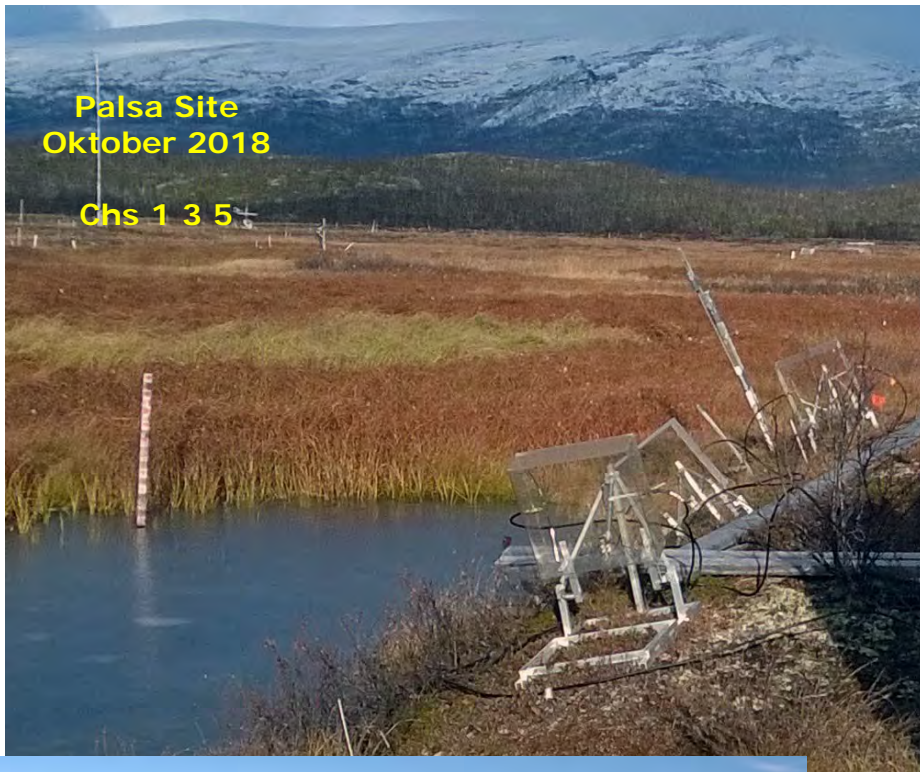
MESIC 6 ●

- \*\*\* Path
- ▨ Boardwalk
- Active layer/water depth site









Palsa Site  
Oktober 2018

Chs 1 3 5



Palsa Site  
Summer  
2017

Chs 1 3 5



Palsa Site  
June 2019

Chs 1 3 5



Palsa Site  
June 2019

Chs 1 3 5



Palsa Site  
June 2019

Chs 1 3 5  
after move of ch 3





21 Sept 2006





15 Jul 2015

M. Palace drone





Photo by Niklas Rakos