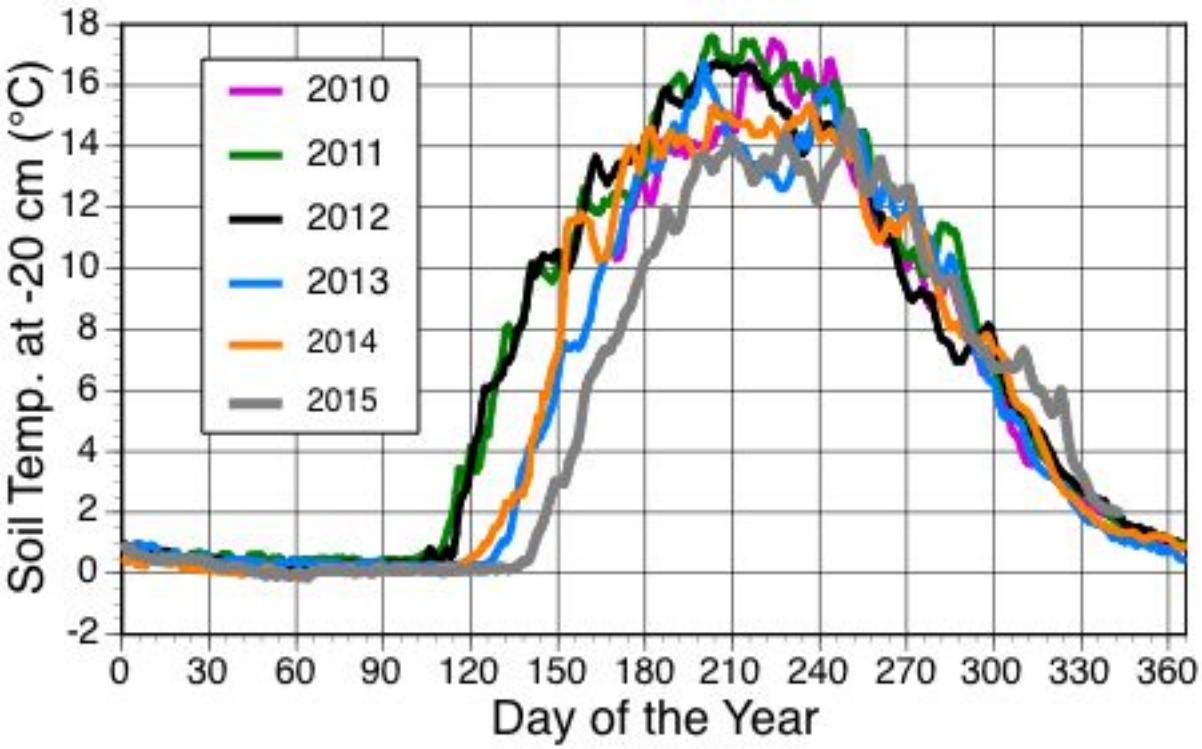
# S1-Bog Snow Cover & Thaw Dates




| Event | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|
| *Last Snow Cover* | ---- | 117, 121 | 77-79, 100-107 | 127 | 115-116 | 79, 88, 98 |
| *EM12 Soil Thaw -20 cm > 1 °C* | ---- | 111 | 115 | 131 | 125 | 142 |
| *First Snows and Snow Cover* | 318+ | 314-318, 320+ | 278-280, 298-312, 317-324, 328+ | 285, 313+ | 312-313, 317+ | 317, 323+ |

# S1-Bog Vegetation Phenology Events (DOY)

| Species | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|
| *Chamaedaphne* - flowering | 117 | 138 | 142 | 141-148 | 147-149 | 152-155 |
| *Larix* - leaf out | 124 | 132-138 | 133-137 | 134 | 136 | 121 |
| *Ledum* - flowers | 149 | 157 | 142-146 | 157 | 157-158 | 145-148 |
| *Eriophorum – growth and flowering* | 149 | 143-165 | 146 | 148 | 142-150 | 147 |
| *Smilacina* – leaves / flowers | 145 / 149-174 | 151/ 157 | 138-141 / 165 | 157 | 154-156 | 155-161 |
| *Picea* - bud break | 157-161 | 174 | 161 | 169-176 | 169-171 | 167-169 |
| *Larix* - leaf color | 267-269 | 267-271 | 269-272 | 288 | 278-281 | 273-279 |
| *Larix* - leaf off | 314 | 288-289 | 297 | 309 | 298 | 303 |

# SPRUCE EM-Site Phenology Movies

1. Time-lapse movies for the EM cameras are complete and will be available on the SPRUCE web site.
   - Tree/site view (from the side) south of boardwalk #1
     - Snow cover, *Larix*, major flowering events, shrub green condition.
   - Shrub view
     - *Ledum, Smilacina, Chamaedaphne, Sphagnum*
     - Growth, flowering, senescence
   - EM Instrument view
     - Very coarse images showing upland tree development
2. Available for 2012, 2013, 2014 & 2015.
   - 2015 is a complete year.