M2M Conference Call

January 18, 2012

- Update on downscaling efforts- Alan
- Plant data collection and status- UCSB
- Mendeley.com document sharing- UCSB
- First look at some HOBO data- UCSB
- Data directory structure for the project- UCSB
- Microclimate data naming conventions- UCSB
- Next Conference Call (changed to): February 22, 1pm

Plant Data: Determine % of germinable seed out-planted

-Blue oak- germination tests underway in UCSB greenhouse

-Initial results- >75% already germinated

-Some loss due to fungus and desiccation

-Black oak, ponderosa, gray and Jeffrey pines- stratification treatments in cooler

-Germination trials to begin next month

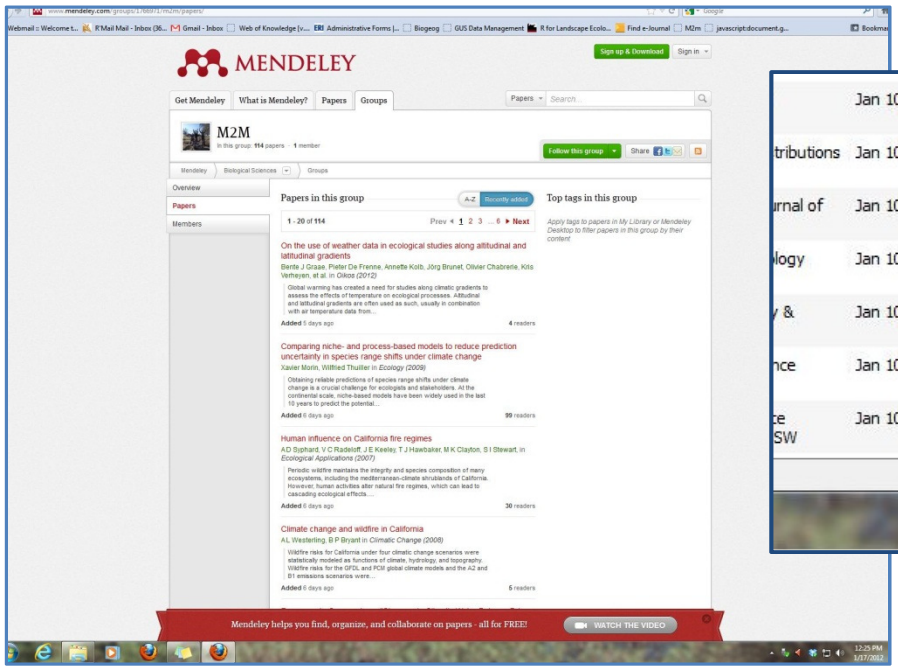
Plant Data: Growth Data Collection

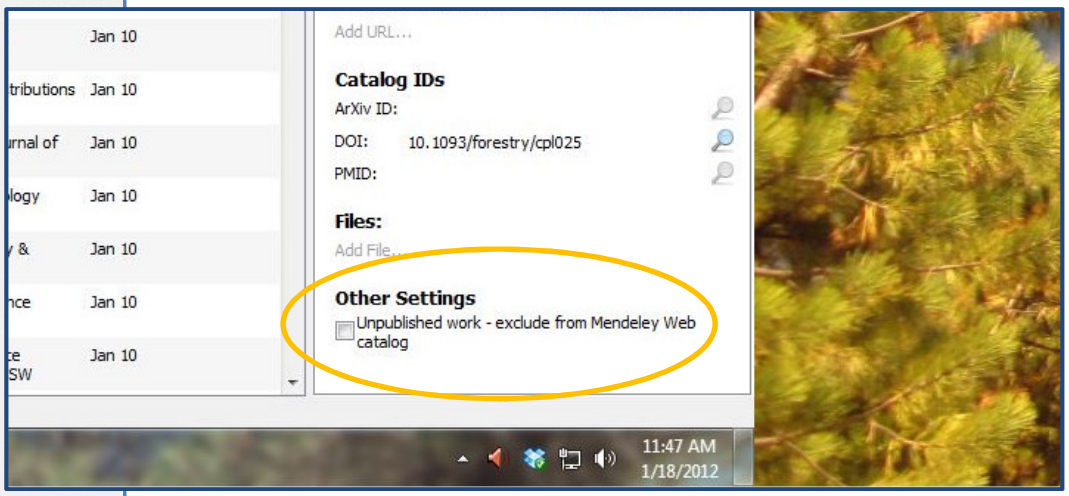
- Bimonthly visits begin approximately 2/14/12
  - Weather-dependent (likely low sites-only)

- Data from each site(4), garden(6) for each seed(50)-species(5)-provenance(2):
  - Emergence, shoot height, # leaves >2.5cm, basal diameter, general condition

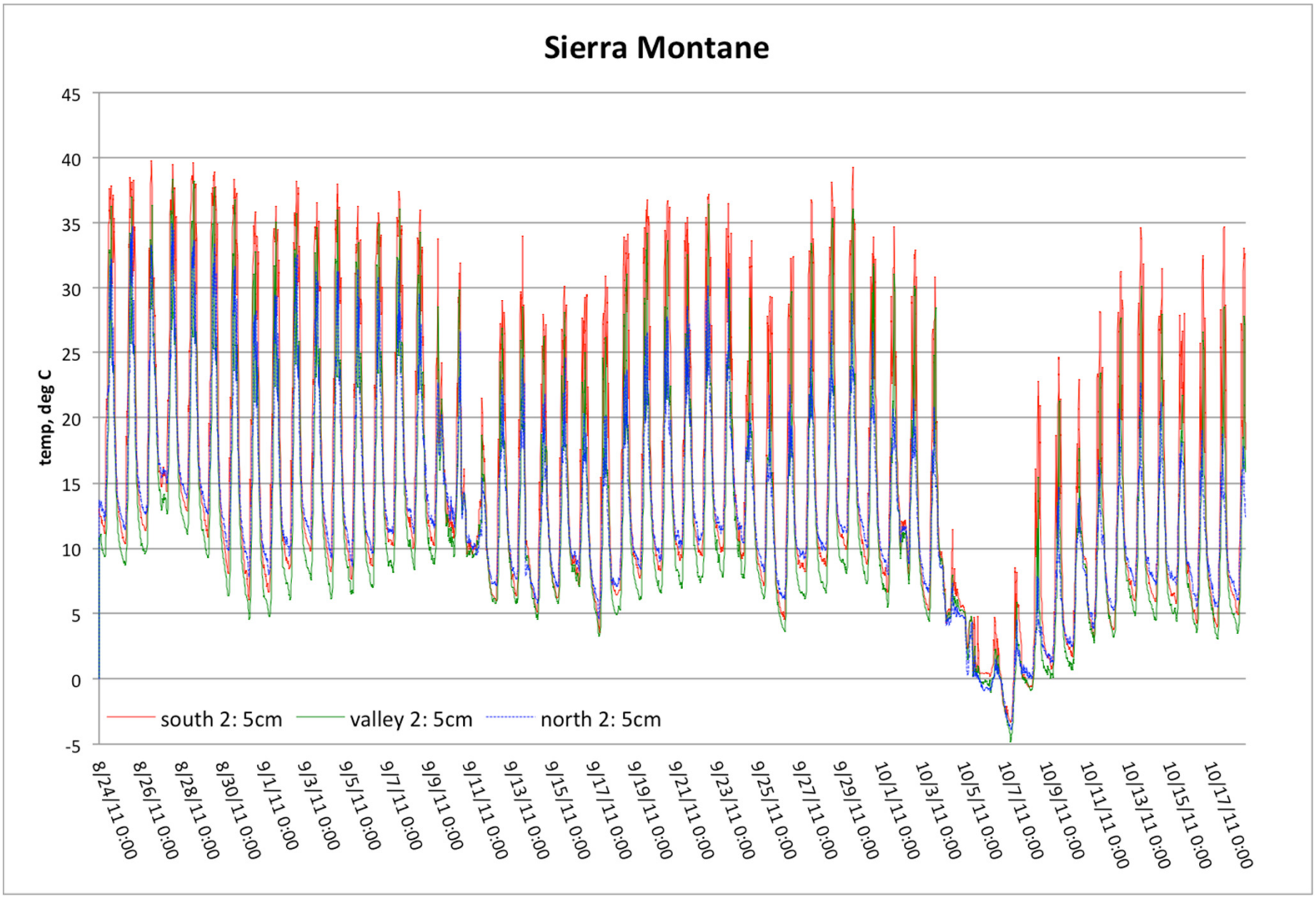
Reference and Document Sharing

- Mendeley Library on Wiki
- To share citations- no login required
- To share PDFs- login must be created
- Who is interested?





Preliminary HOBO data



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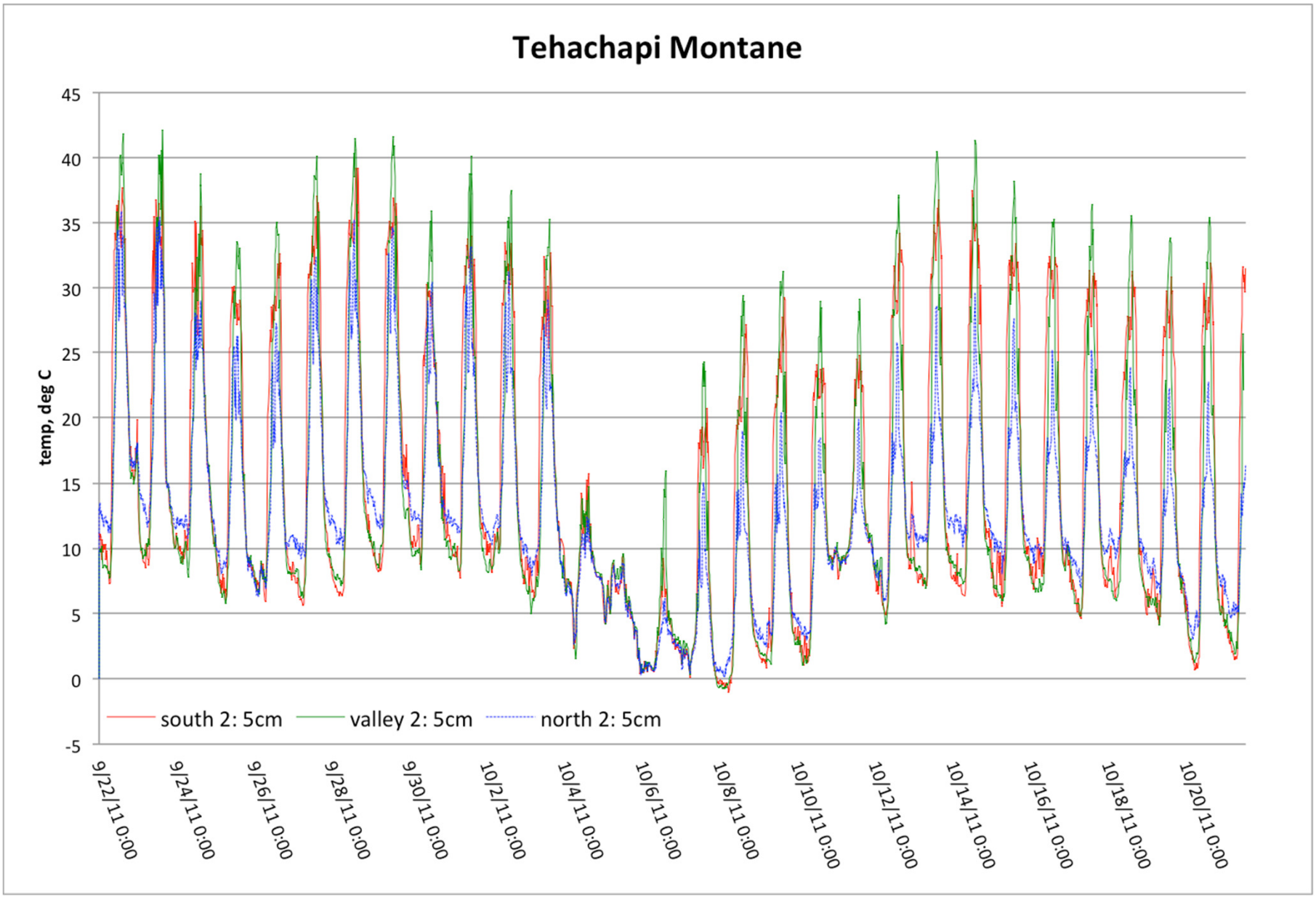

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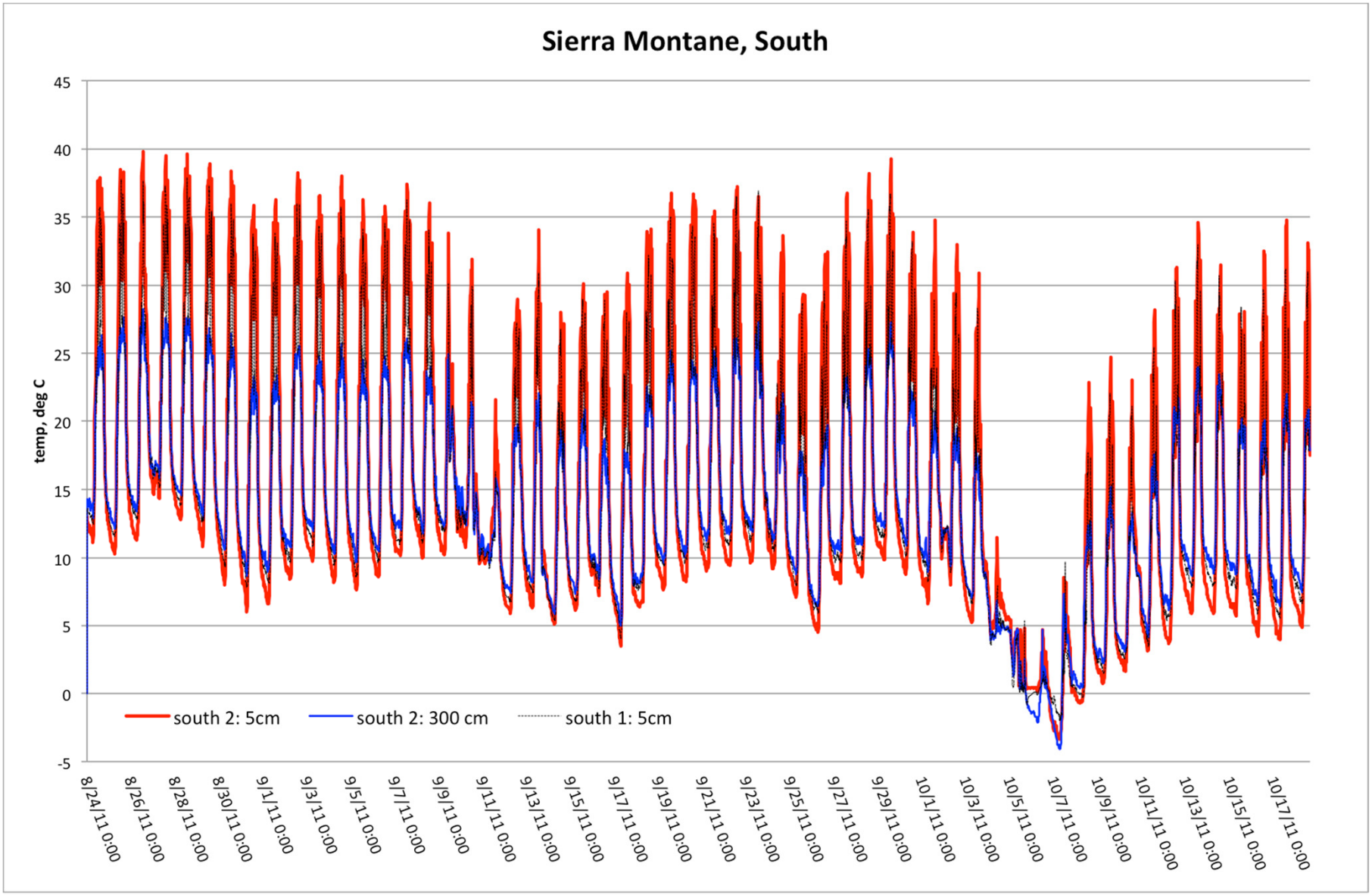

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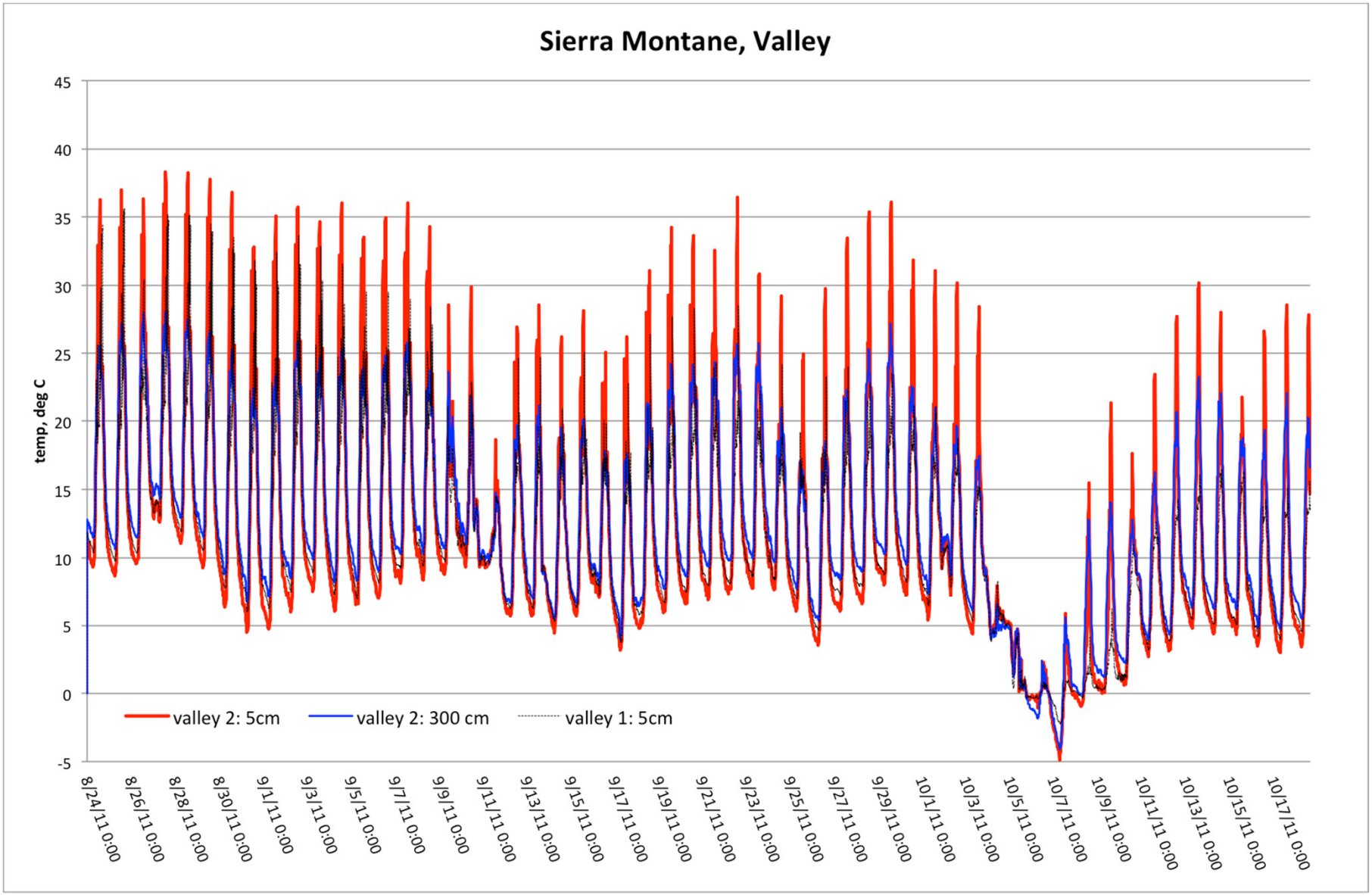

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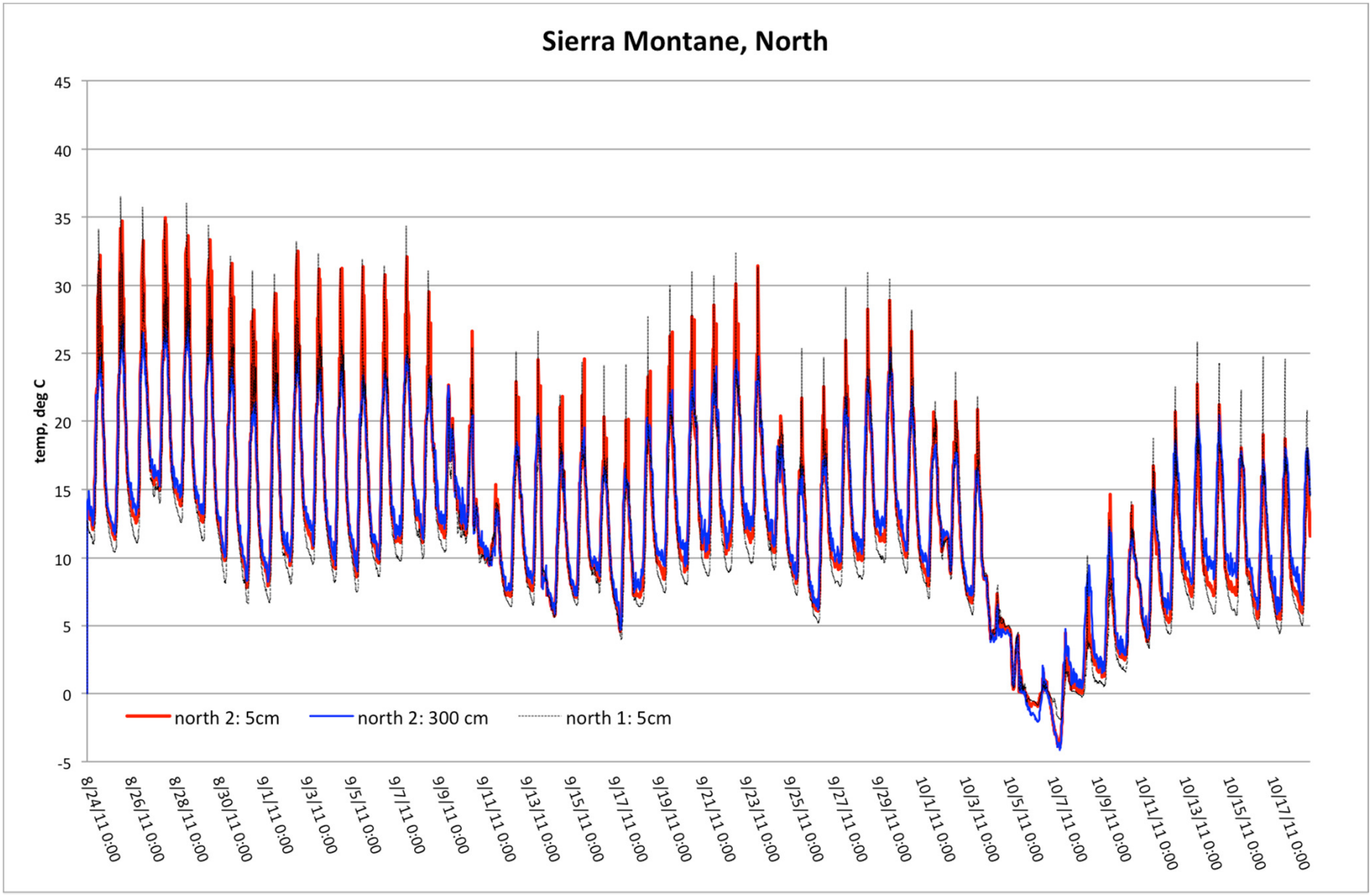

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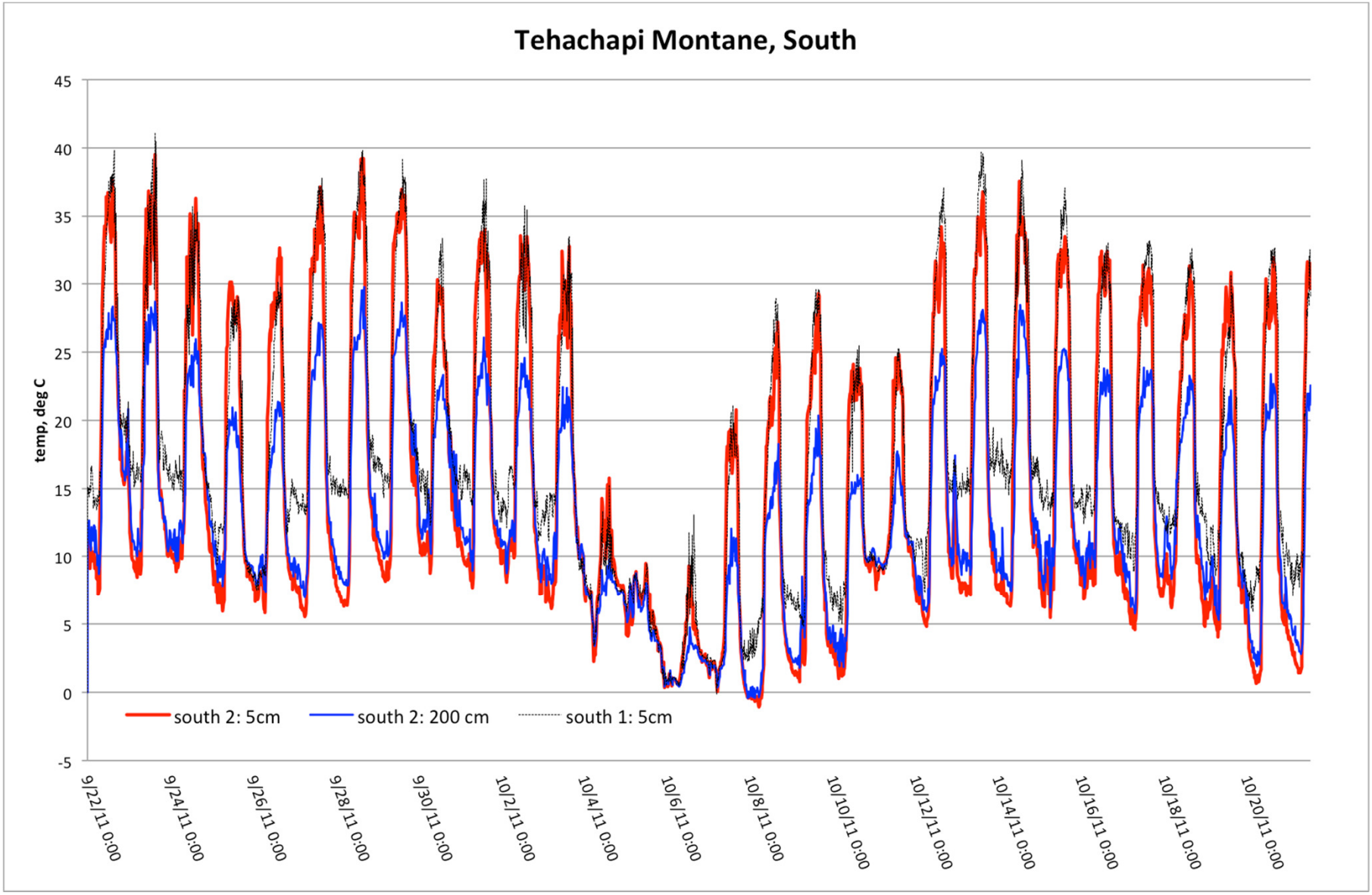

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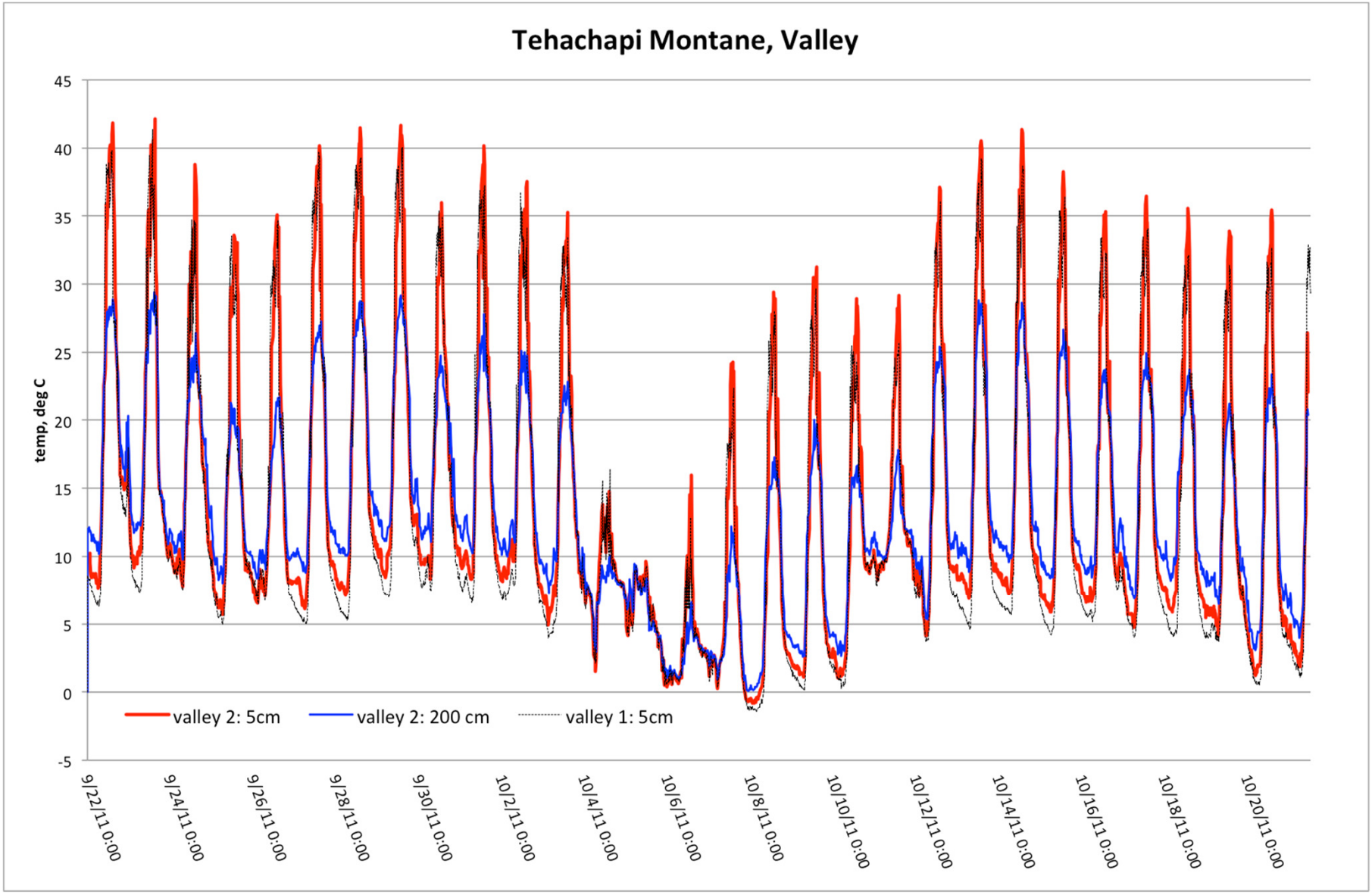

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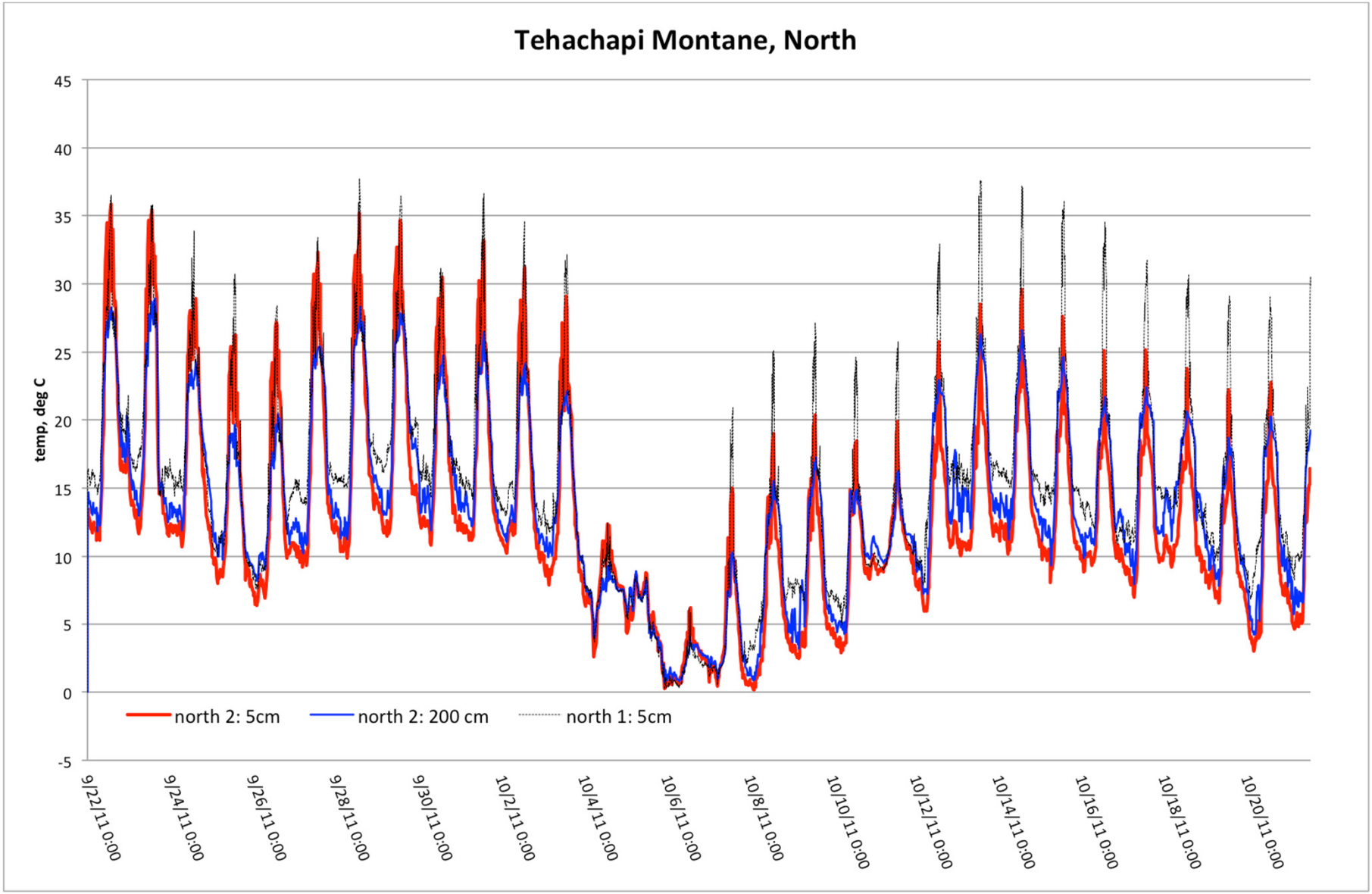

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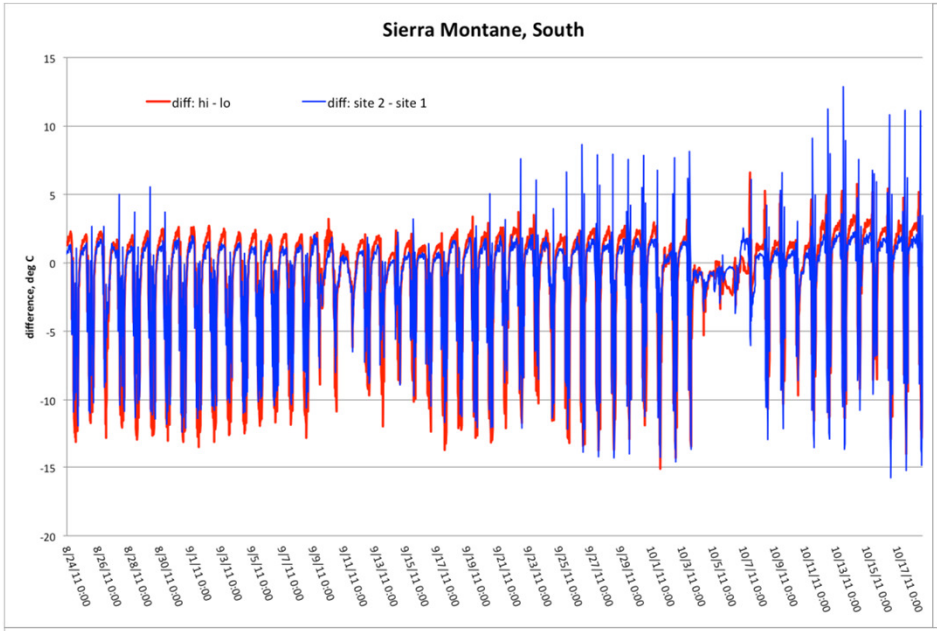

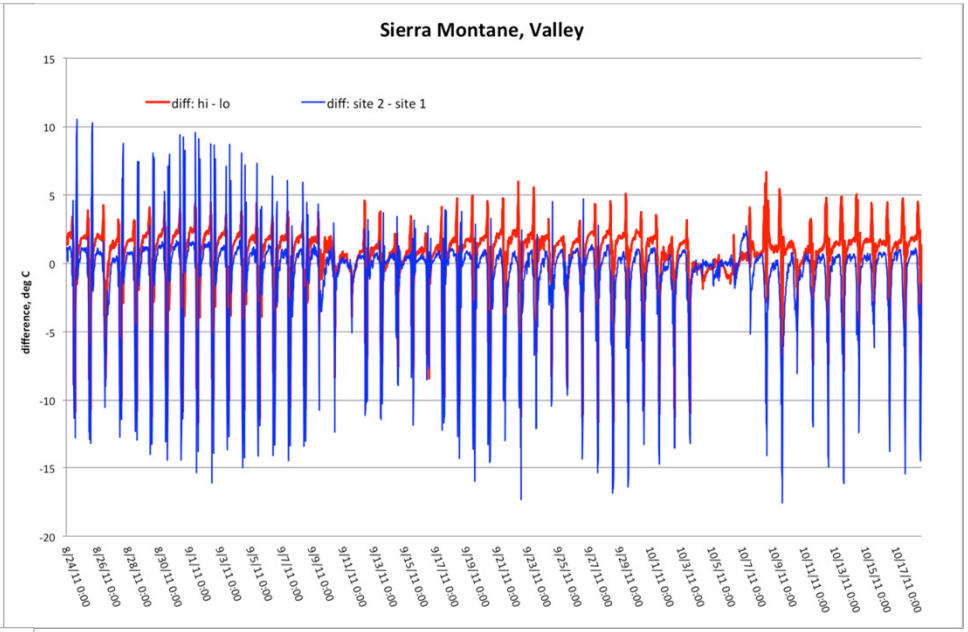

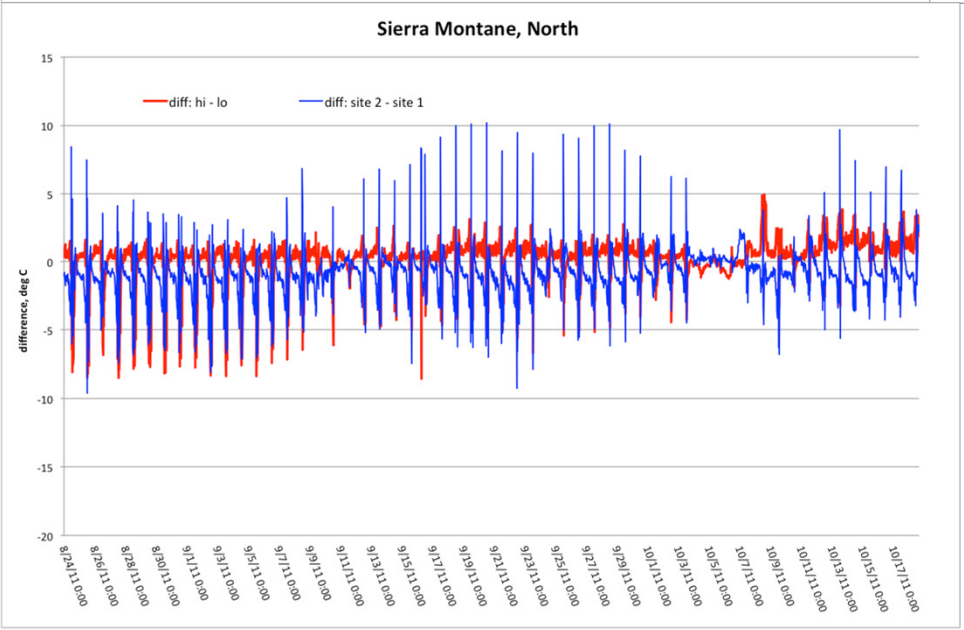

Red line = temp diff at same location btw 3m and 5cm sensors

Blue line = temp diff between paired gardens of same topo-position (N1 vs N2, S1 vs S2…), as measured at 5cm

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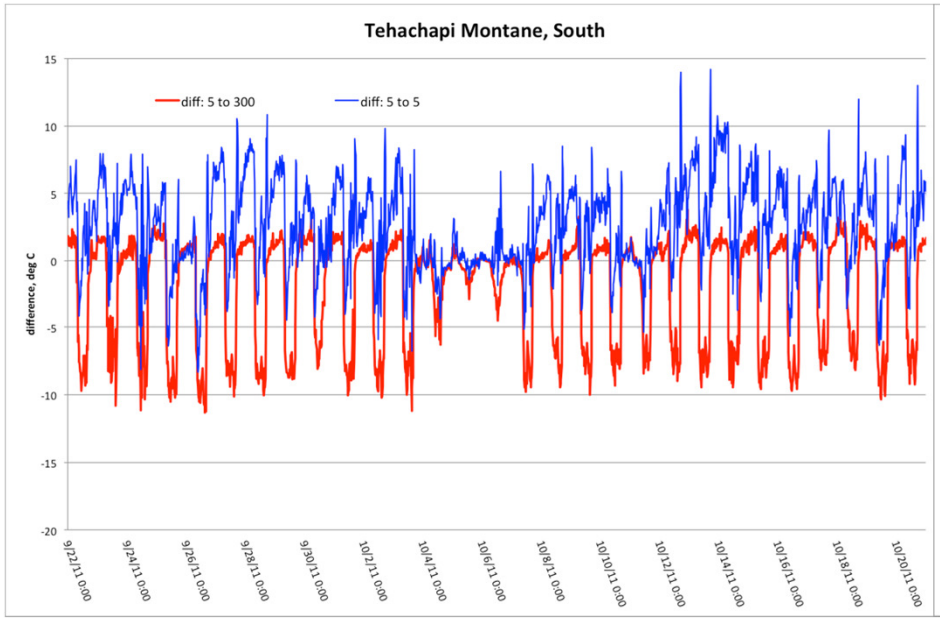

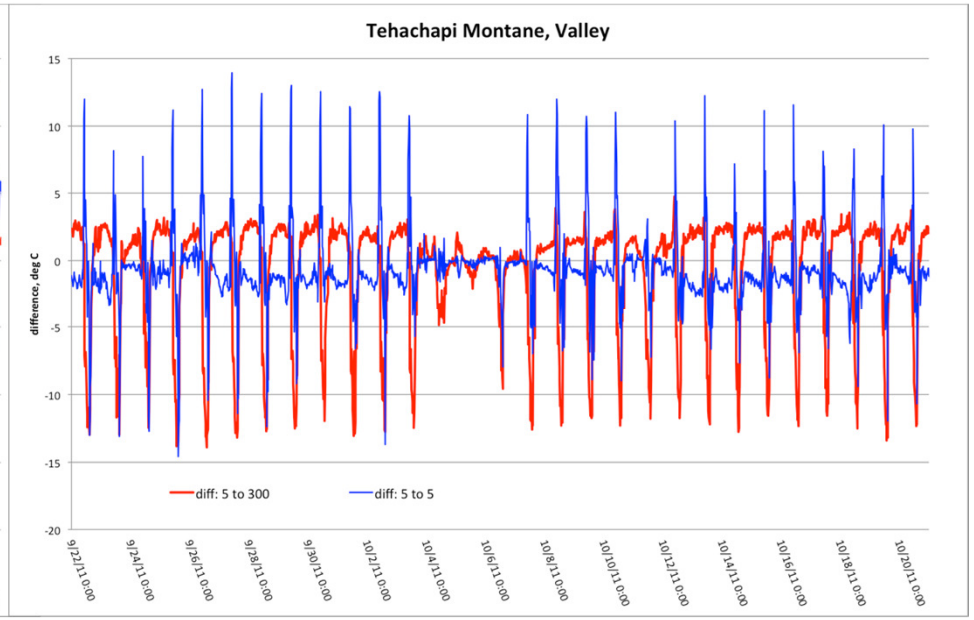

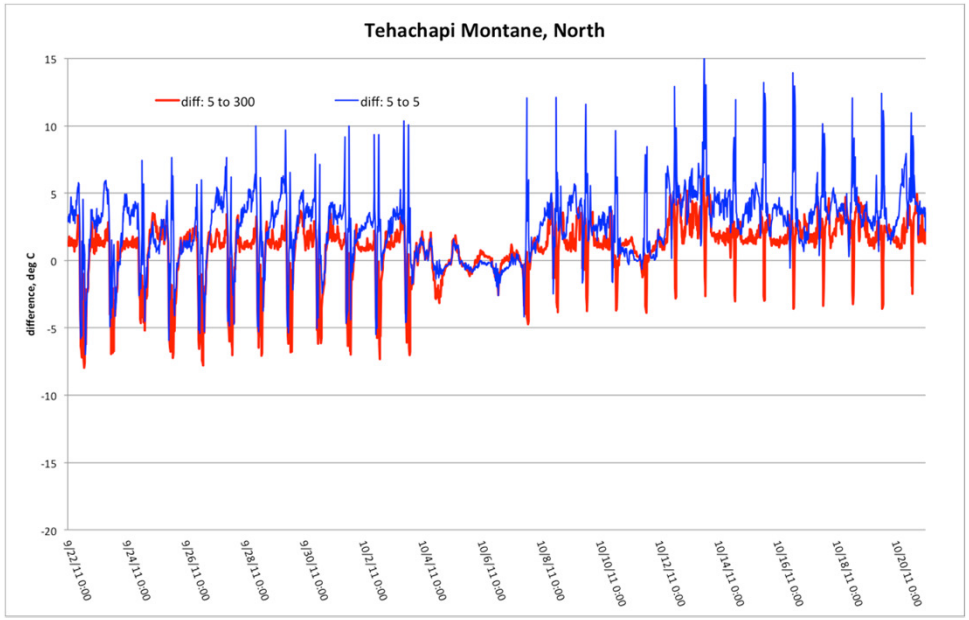

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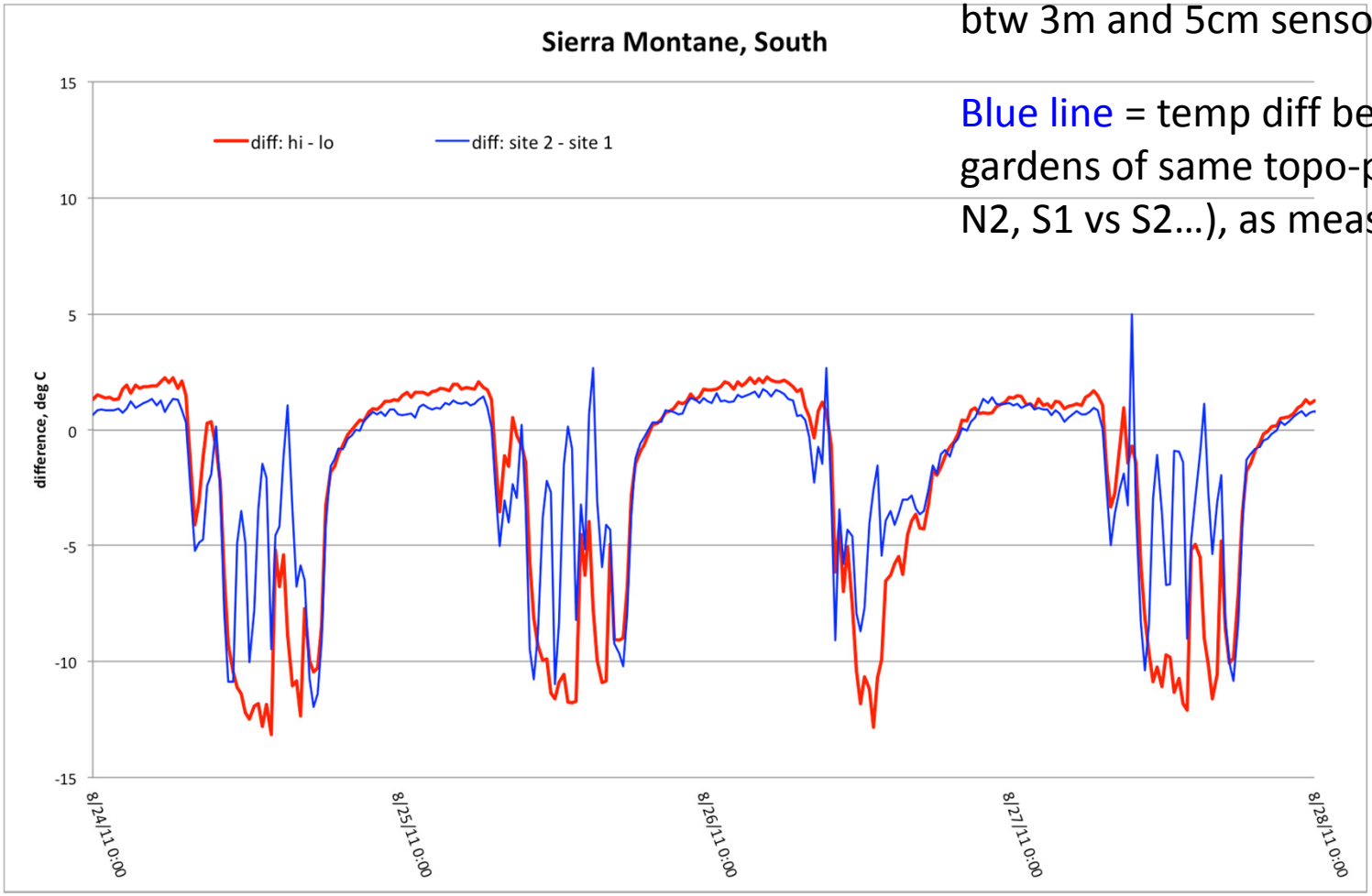

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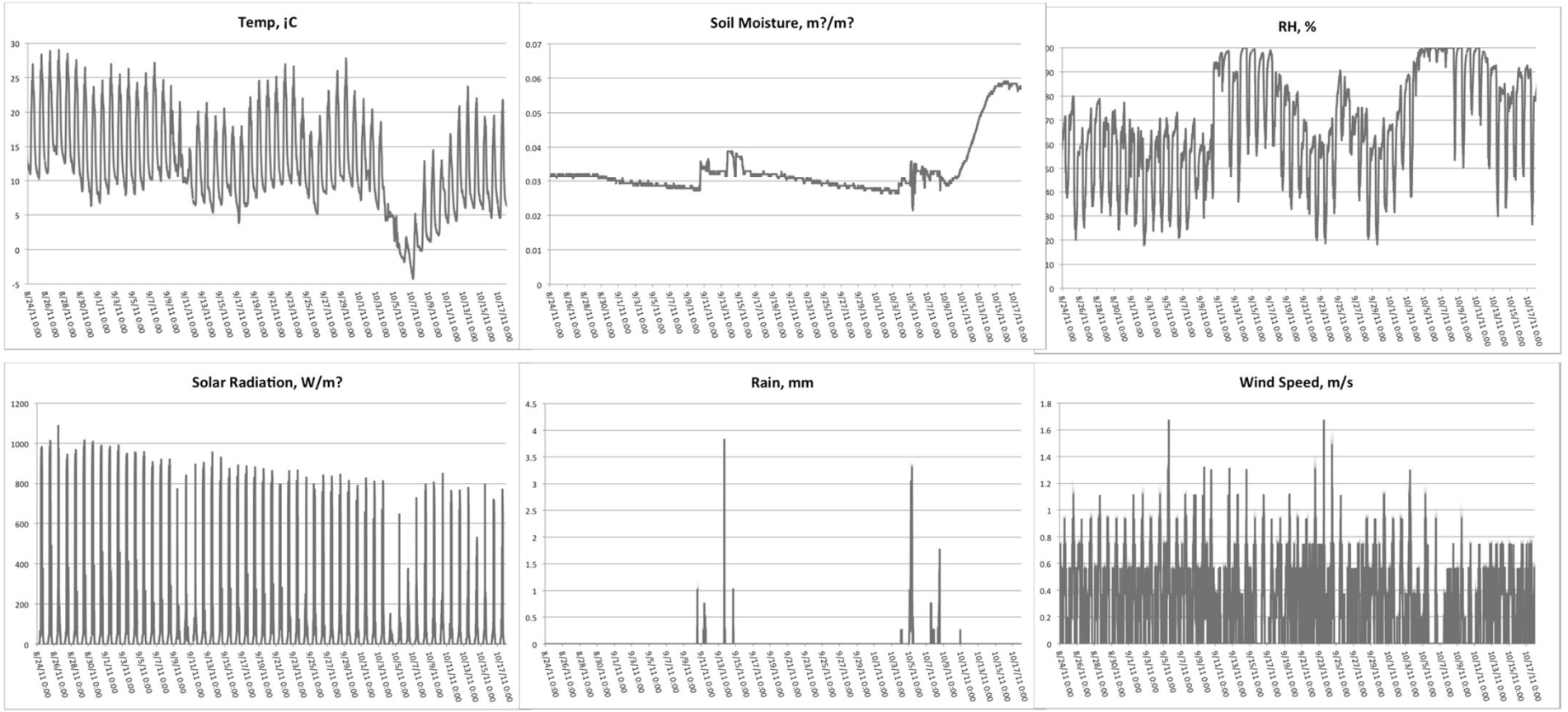
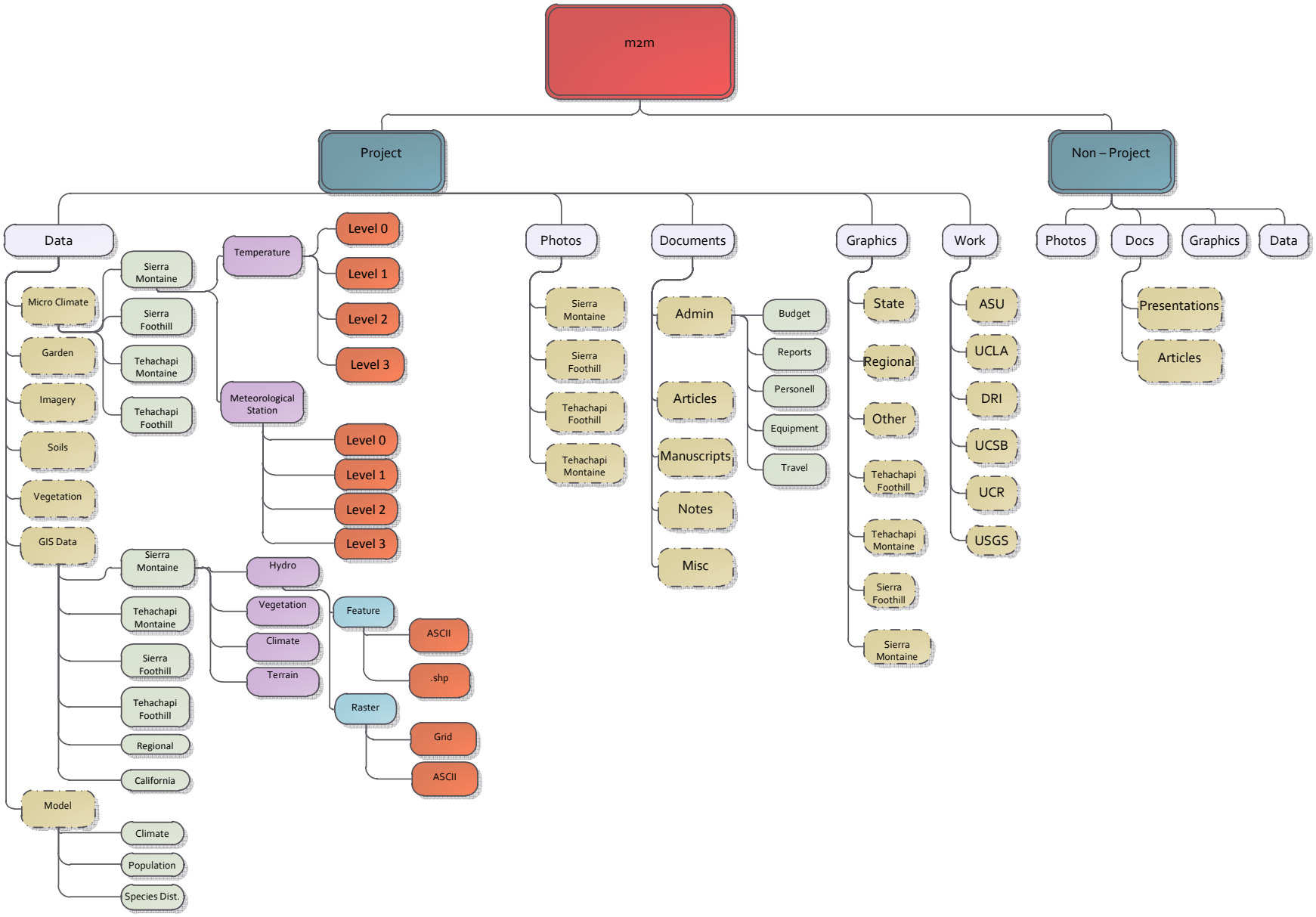


Weather station data from Sierra Montane garden 3 (valley/CAP)

Data Directory Structure



Data Levels

Data Level	Description	File Format	Nomenclature (example)
Level 0	Raw climate data	.hobo / .csv	09987261.hobo / 09987261.csv
Level 1	Data: calibrated, QA/QC-ed, and cleaned-up	.csv	09987261_20110827_20111027.csv
Level 2	Data: calibrated, QA/QC-ed, cleaned-up, and concatenated	.csv	temp_sm408_1_20110827_20120714.csv
Level 3	TBD	.csv	TBD

Nomenclature

a. **type_ sitegardenposition_height_startdate_stopdate.csv**
   i. **Type**: refers to type of sensor.
      1. Temperature (**temp**), or Weather Station (**met**)
   ii. **Site**: refers to the site at which the sensor is located
      1. **sm** = Sierra Montane, **sf** = Sierra Foothill, **tm** = Tehachapi Montane, **tf** = Tehachapi Foothill
   iii. **Garden**: (1 – 6) refers to the garden at which the sensor is located. (7) refers to sensor on the Landscape array. Gardens 1 – 3 refer to gardens containing weather stations. Gardens 4 – 6 refer to gardens without weather stations. Gardens 1 & 4 refer to a north facing garden. Gardens 2 & 5 refer to south facing gardens. Garden 3 & 6 refer to valley, cold air pool, or ridge gardens.
   iv. **Position**: (00 – 53) Refers to the position of the sensor within or around the garden or on the landscape.
      1. Vertical station / weather station = **00**
      2. Inner 15m ring = **01 – 12**.
      3. Outer 40m ring = **13 – 20**.
      4. Landscape array = **20 – 38** (**53** at Sierra High)
   v. **Height**: refers to height of sensor above the ground.
      1. **0** = ground level (~2 – 10cm)
      2. **2** = 2 meter level
      3. **3** = 3 meter level
      4. **4** = 4 meter level
   vi. **StartDate**: refers to the date when sensor was installed and data collection began.
      1. Format: **yyyymmdd**
   vii. **StopDate**: refers to the most recent date when data was downloaded from sensor or when data collection ended.
      1. Format: **yyyymmdd**

- Example of a temperature sensor datafile after calibration, QA/QC, and concatenation:
- **temp_sm604_1_20111025_20130602.csv**