

Purpose: To compile field observations and quantitative data, and relate it to a theoretical framework relating to the winter physiology and ecology of plants and animals.

Debriefing Schedule: Part A (below) in Wed. Lecture; Part B in Laboratory this week; Part C as part of your review of reading assignments and discussion Friday.

Debriefing Responsibilities;

- A. Field Observations – List as many observations from our field excursions as you can recall; then, link each observation to a concept or principle from your earlier studies this semester. The following format may be useful:

Field Observation	Relevant <i>Structure, Process</i> or <i>Relationship</i>
Snow melts around bases of trees –	Sublimation, snow as perfect black body; possible route for small mammals between subnivean environment and top of snowpack
Aspens and White Birches	Bark characteristics to distinguish; both have catkins; invade after disturbance; short-lived

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- B. Quantitative Data – Provided on T:\drive for discussion in Laboratory this week.

Assignment for Lab: Please download the file and graph the data (rough draft) so as to identify differences and trends in the following:

1. Diurnal Vertical Temperature Profile – Atmosphere-Snow-Soil
2. Vertical Profile of Temperature, oxygen, and light flux density (PAR) in Big Twin Lake
3. Thermal Index of Snowpack – determine value and relate to diurnal temp. variations

- C. Review Evening Discussion Notes (pages 5 through 11) – relate where possible to A. and B. and also, relate concepts to one or more specific plant or animal species – e.g. Beaver – countercurrent circulation; lowering of LCT – porcupine