

| <b>Monday/Jan 8</b><br><i>Introduction</i>   | <b>Tuesday/Jan 9</b><br><i>What is a watershed?</i>                                    | <b>Wednesday/Jan 10</b><br><i>Experimental design and context</i>  | <b>Thursday/Jan 11</b><br><i>Research proposals</i>  | <b>Friday/Jan 12</b><br><i>Laboratory experiments</i>  | <b>Saturday/Jan 13</b>                       |
|--|--|--|--|--|--|
| Breakfast  | Breakfast  | Breakfast  | Breakfast  | Breakfast  | Breakfast                                    |
| 9:00 Introduction: Expectations<br>Overview<br>Group assignments   | 9:00 Presentation:<br>1) finding a Schoodic study site<br>2) what is a watershed?      | 9:00 Presentation: Principles of experimental design: the right place at the right time                            | 9:00 Presentation: Using the scientific method in environmental research and<br><br>Review of our key question, methods, and materials available | 9:00 Training (Johnson): Laboratory procedures and safety  | Samples to FedEx by noon for Monday delivery |
| 9:45 Training: Leave No Trace (NPS)  |  | 9:40 Training: mercury field sampling procedures   |  |  |  |
| 10:30 Break  | 10:15 Break  | 10:30 Break  | 9:45 Break   | 10:00 Laboratory   |  |
| 11:00 Presentation: Where are we? Acadia's ecosystems: characteristics and stressors (presentation and group brainstorming session)                      | 10:30 Working groups: Delineating watersheds using maps                                | 11:00 In the field: soil sampling in Schoodic watershed  | 10:00 Current research and a novel approach (Jessica Muhlin)   | exercise: the effect of acid rain on three types of Maine soils<br><br>Regroup and wrap-up: observations from the lab exercise |  |
|  | 11:15 Group presentation: findings, problems<br>Comparison to GIS-derived data         |  | 10:30 Working groups: Design an experiment to answer our key question:<br>a) if anything is possible; b) with the materials we have              |  |  |
| 12:00 Lunch  | 12:00 Lunch  | 1:00 Lunch   | 12:00 Lunch  | 12:00 Working lunch: finalizing laboratory experiment plans  | Lunch  |
| 1:15 In the field: Observing our surroundings - hike around Schoodic point   | 1:15 In the field: Delineating and GPS-logging our proposed study watershed            | 2:00 Presentation (Fernandez): Setting the stage: the soils of Maine and their influence on watershed geochemistry | 1:30 Group presentation: working group proposals for a laboratory experiment to investigate our key question                                     | 1:00 Working groups: Carrying out proposed experiments to investigate our key question   |  |
| 3:15 Regroup and wrap-up: key observations<br>Introduction to scientific method, environmental geochemistry and introduction to J-term Watershed Project |  | 3:30 Discussion and brainstorming: soils and mercury   | 3:00 Regroup and wrap up: discussion of some possible approaches, drawbacks  |  |  |
| 5:30 Dinner  | 5:30 Dinner  | 5:30 Dinner  | 5:30 Dinner  | 5:30 Dinner  | Dinner                                       |
| 7:00 Presentation: Mercury at Acadia National Park   | 7:00 Computer session: downloading our watershed boundary and creating a map. Wrap up. |  | 7:00 Training (Johnson): setting up laboratory equipment   | Evening: No activity scheduled; lab experiments may continue   | Movie in Ellsworth                           |

| <b>Sunday/Jan 14</b><br><i>Acadia's vernal pools</i>                                | <b>Monday/Jan 15</b><br><i>Complexity: time and space</i>   | <b>Tuesday/Jan 16</b><br><i>MDI field trip</i>  | <b>Wednesday/Jan 17</b><br><i>Dealing with data</i>                                 | <b>Thursday/Jan 18</b><br><i>Our results and discussion</i>   | <b>Friday/Jan 19</b> |
|---|---|---|---|---|----------------------|
| Breakfast   | Breakfast   | Early breakfast   | Breakfast   | Breakfast   | Breakfast; departure |
| Free time   | 9:00 Presentation: Complexity in environmental science  | 8:30 Depart for field trip to MDI. In the field: 10:00 – National Park Service air and climate research site at McFarland Hill (B. Gawley) Bag lunch 1:00 – Hike to Cadillac Brook Watershed 4:30 – depart MDI for Schoodic | 9:00 Presentation: Now what do I do with these numbers? Environmental data analysis | 9:00 Overview of day's goals followed by Working groups: preparing presentations of final results   |                      |
|   | 10:15 Break   |   | 10:00 Break   |   |                      |
|   | 10:30 Group activity: putting together a mercury budget   |   | 10:15 Training: Working with environmental data (using other data sets)             |   |                      |
| Lunch   | 12:00 Lunch   |   | 12:00 Lunch [receive data]  | 12:00 Lunch   |                      |
| Free time   | Free time?  |   | 1:00 Working groups: data analysis and interpretation                               | 1:30 Group final presentations  |                      |
| Late afternoon presentation by Megan Gahl: Vernal pools at Acadia (tentative)       | 4:00 Presentation (Norton): Paleo in the Park: The history of air pollution at Acadia National Park |   |   | 3:30 Regroup and wrap up: discussion of findings, new questions we have identified; suggestions for improving experiments or interpretation |                      |
| 5:30 Dinner with Megan Gahl   | 5:30 Dinner with Steve Norton   | 5:30 Dinner   | 5:30 Dinner   | 6:00 Dinner   |                      |
| 7:00 Discussion: what characteristics of vernal pools are risk factors for mercury? |   | 7:00 Wrap-up and discussion: observations from MDI  | 7:00 Presentation: The Dos and Don'ts of scientific presentations                   |   |                      |