BZ 472 – Stream Biology and Ecology Laboratory
Fall 2015

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Office Hours  Wednesday 10-12 pm, or by appointment

Webpage  http://rydberg.biology.colostate.edu/bz472/

Place  Yates 301

Time  Thursday 2 – 4:50 pm

Texts  Recommended, NOT required


Grading  Analysis 1 – 20%
Analysis 2 – 20%
Quiz – 10%
Presentation – 30%
Participation – 20%

Objectives
Enhance knowledge of ecological structure and function of stream environments.
Develop familiarity with Colorado stream insects to order- and/or family-level taxonomic resolution.
Acquire skill with field techniques, laboratory methods and data analyses used in stream ecology.
Obtain experience with group collaboration on data collection and interpretation.
Improve ability in communicating science in oral and written formats.

Academic Integrity
This course will adhere to the Academic Integrity Policy of Colorado State University’s General Catalog (page 7) and CSU’s Student Conduct Code. We expect you to honor these policies, and that you pledge to “not give, receive or use any unauthorized assistance” on any academic work in this course.
<table>
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<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
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<tr>
<td>1</td>
<td>Aug 27</td>
<td><strong>Introduction to lab</strong></td>
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| 2    | Sep 3  | Get feet wet in local stream  
Field trip to Spring Creek                                           |
| 3    | Sep 10 | **Introduction to benthic macroinvertebrates**  
Discuss data for regional water quality assessment  
*Explain presentation on water quality assessment* |
| 4    | Sep 17 | **Bioassessment of local river**  
Field trip to Poudre River above Fort Collins                          |
| 5    | Sep 24 | **Physiology of aquatic insects**  
Observations of thermal tolerance                                      |
| 6    | Oct 1  | **Discuss data from physiology observations, and paper**  
*Explain analysis of observations*  
Analyze insect samples from Poudre River                              |
| 7    | Oct 8  | **More bioassessment of local river**  
Field trip to Poudre River below Fort Collins                          |
| 8    | Oct 15 | **Direct interactions of aquatic invertebrates**  
Experiment on direct predator effects                                  |
| 9    | Oct 22 | **DUE date for physiology observations ANALYSIS**  
Discuss data from interactions experiment, and paper  
*Explain analysis of experiment*  
Analyze insect samples from Poudre River                              |
| 10   | Oct 29 | **Indirect interactions of aquatic insects**  
Observations of indirect predator effects                              |
| 11   | Nov 5  | **Introduction to benthic stream algae**  
Analyze algae samples from Poudre River                                |
| 12   | Nov 12 | **DUE date for interactions experiment ANALYSIS**  
DISCUSSION of river restoration, and paper(s)  
*Explain discussion of human impacts*                                  |
| 13   | Nov 19 | **QUIZ on aquatic insects**                                          |
| 14   | Nov 26 | **No Lab** – Thanksgiving                                            |
| 15   | Dec 3  | **DISCUSSION of global human impacts**                               |
| 16   | Dec 10 | **PRESENTATIONS on water quality assessment**                         |