ENTO 5601

INSECTS FOR TEACHERS: COLLECTION, PRESERVATION, AND IDENTIFICATION OF INSECTS

Course Syllabus

Dates: June 7-12, 2017

Rooms: Ag 4021 (Lectures) and Ag 4022 (Lab)

Instructors: Alexandre Latchininsky, PhD;
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Textbook: Petersons Field Guide to Insects by Donald J. Borror/Richard E. White ISBN 0-395-91170-2

Handout for Dr. Cranshaw's lecture:
http://webdoc.agsci.colostate.edu/bspm/InsectInformation/MasterGardener_Updates/2017Updates/PowerPoints/Enimies.pdf

Materials: Collection boxes, pins, killing jars, insect nets, spreading boards (BioQuip).

Objectives: Students will become familiar with common Wyoming insect orders, learn how to properly collect, preserve, identify and display collected specimens. Students will also explore possibilities of using live insects for various activities in the classroom.

Day 1 (Wednesday June 7), Room Ag 4021
1:10-1:20 – Introductions, objectives, structure and grading of the course
1:20-2:00 – A planet of insects: an introduction to entomology
2:00-2:10 break
2:10-3:00 – Review of common insect orders in Wyoming
3:00-3:10 break
3:10-4:40 – Recognizing - and working with - the natural enemies of insects. Guest lecture by Dr. Whitney Cranshaw, CSU
4:40-4:50 break
4:50-5:00 – Outline of lab experiment proposal requirements
Lab experiment proposals due to Alex by e-mail by 5:00 pm on Friday June 9
5:00-5:10 – Insect resources for teachers
5:10-5:20 – Preparation for the field trip
5:20-6:00 – Wyoming butterflies: worth the watching

Day 2 (Thursday June 8)
8:00-12:00 – Field trip to Happy Jack area to collect insects. Insect habitats and appropriate collection techniques
12:00-1:00 Lunch break
Room Ag 4022 (Entomology Teaching lab)
1:00-1:30 – How to use the dichotomous keys to ID insects to the order level
1:30-1:45 – Specimen handling and use of microscopes for insect identification
1:45-1:55 break
1:55-2:30 – Techniques of preserving and displaying of the collected specimens
2:30-5:00 – Sorting and identification of the collected specimens to order. Mounting the collected specimens and displays

Day 3 (Monday June 12), Room Ag 4022 (Entomology Teaching Lab)
8:00-9:30 – Sorting and identification of the collected specimens to order. Mounting the collected specimens and displays (contd.)
9:30-9:40 break
9:40-11:30 – Practice of insect identification to orders. Insect ID to order test
11:30-11:50 – Grading of collections
11:50-12:00 noon – Course wrap up: what did we learn? Class evaluation

Grading

- Insect collection (100 pts.):
  - minimum 50 specimens (each specimen = 1 pt.; max 50 pts.)
  - belonging to minimum 8 orders (each order = 5 pts., max 40 pts.)
  - proper pinning and displaying (10 pts.)
- Lab experiment proposal, written and e-mailed on time (50 pts.)
- Insect ID to order test (50 pts.): 10 insects, each insect identified correctly to order level = 5 pts.

Total maximum: 200 pts.

A=180-200
B=160-179
C=140-159

The Syllabus is a guideline. It can be modified at any moment to suit better the class needs.