Entomology 4684/5684: Classification of Insects
Fall Semester 2011

CLASS MEETING TIMES: Tuesday and Thursday at 9:35am in room 4022. PLEASE BE ON TIME. Formality requires that we list a lecture (9:35-10:50am) and a laboratory (11:00am-12:15pm). This is a practical laboratory class. You will learn (and remember) more by doing things yourself (such as examining specimens with a microscope, using the identification keys in the text, making a collection). So in practice there will be only short informal lectures, and little distinction between lecture and laboratory. The "lectures" are intended mainly to present you with some information to navigate each lab. YOU MUST COME TO CLASS TO DO WELL IN THIS COURSE.

INSTRUCTOR: Scott R. Shaw, Professor of Entomology and Curator of the Insect Museum, Department of Renewable Resources, University of Wyoming. Office hours by appointment, room 4016 Agriculture, phone: 766-5338, e-mail: braconid@uwyo.edu
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MATERIAL COVERED: The main goal of an advanced insect classification course is to learn to identify **adult specimens** of as many **insect families** as possible, given the availability of specimens, and the constraints of time. Since you cannot possibly learn all there is to know in one semester, you will also be learning important skills such as: proper methods of insect specimen preparation, how to use identification keys for unknowns, how to work with museum collections, theoretical aspects of how and why insects are classified, and how to use the literature as tools for identification. Special emphasis is placed on terrestrial insects, since aquatics are covered in a separate class. Since the major orders comprise the bulk of insect diversity (Lepidoptera, Hymenoptera, Diptera, Coleoptera), we will spend proportionally more time studying those groups, and will examine them earlier in the semsester. Groups that are purely aquatic (Ephemeroptera, Plecoptera, Trichoptera) are only briefly covered in this class, since they are covered in more detail in Aquatic Entomology. Some groups of medical importance are not covered here (Pthiraptera, Siphonaptera) - are covered in Medical Entomology.

TEXTBOOKS:
(1) Borror, D. J., C. A. Triplehorn, and N. Johnson (recent edition). An introduction to the study of insects, Saunders College publishing, Philadelphia. (required) This book contains identification keys that you will be learning to use in class. BRING THIS BOOK TO CLASS EVERY SESSION.

(2) Borror, D. J. and R. E. White (recent edition). A field guide to the Insects of America North of Mexico, Houghton Mifflin Co., Boston. (required) Very handy for learning spot-identification characteristics of family groups.

GRADING: 50% of your grade will be based on in-class assignments (mystery key-outs), class participation (doing the reading assignments, participating in class discussion of the readings, participation in in-class practical assignments involving specimen preparation, collection skills, museum visits), homework assignments, and weekly quizzes. Please

note that weekly quizzes vary in point value, and there are bigger quizzes later in the semester. Point values for each quiz are given on the class schedule. You must be in class on time on quiz days. There are no "make-up" quizzes. On quizzes, family names are correct only if spelled correctly. The final exams and collection (project) combined are worth 50% of your class grade. Point totals as follows:

QUIZZES TOTAL = 200 POINTS
WEEKLY KEY-OUTS, HOMEWORK = 100 POINTS
COLLECTION-PROJECT = 100 POINTS
FINAL OPEN-BOOK KEY-OUT EXAM = 100 POINTS
FINAL CLOSED-BOOK SIGHT IDENTIFICATION PRACTICAL = 100 POINTS

FINAL EXAM: Thursday DECEMBER 10 from 10:15am to 12:15pm in Room 4022. Be there on time. The final exam is COMPREHENSIVE, covering all family names learned this semester.

INSECT COLLECTION REQUIREMENT. Making a collection is challenging in Wyoming, so get an early start, focus on rearing insects, and winter collecting. The requirement for an A grade on the collection is approximately 125 different species correctly identified to order and family, representing at least 90 different families. See the "collection requirements" handout for the exact grading scale and method. All specimens should be identifiable adults, properly mounted and labeled with complete data. Grading will be based on size of the collection, correctness of identifications, and quality of specimen preparation (e.g. mounting, data labels). You can collect at any locality (e.g. somewhere warmer), trade material in class, even purchase specimens from catalogs (although I do not encourage you to do so), but all data labels should be accurate (note the collector, date, & locality) and you should collect the majority of material in your collection. Any collections containing stolen or deliberately mislabeled material will receive a grade of F. Pins and boxes will be provided if you are willing to donate your collection. If you wish to keep your collection, you must provide your own materials. In all cases, I reserve the right to keep a reasonable amount of specimens for developing the museum or improving the teaching collections. The best source for collecting supplies is Bioquip Products, 17803 LaSalle Avenue, Gardena, CA 90248. Phone: (213) 324-7931.