Overview of ecological and evolutionary inter-relationships between animals and higher plants, including pollination biology, dispersal ecology, and plant-herbivore interactions.

1) Familiarize students with the current literature, mechanisms, and theories of herbivory, pollination, seed dispersal and plant defense;

2) Promote conversant understanding of these through verbal debate and discussion

3) Expose students to the realities and rewards of research in plant-animal interactions through a group mini-study

Course Responsibilities:

1) Three written critiques of papers of the students’ own choosing. Each critique is limited to two single-space pages, including citation for the article and citations for any additional references. Papers selected should deal with the following topics: pollination ecology, seed dispersal, herbivory, or other plant-animal symbioses. Each critique must be on a paper from a different topic area, organism, and journal. Bring me the article if you are unsure of its suitability. You should not critique a paper used for class discussions. The majority of the grade will be for content, but I will also grade for style, grammar, logic, etc. Please include a copy of the paper you are critiquing when turning in your assignment.

2) Class discussion. You will guide class discussion for one or more papers (depending on class size) and participate in the discussion of all other papers. Your guided discussion will include verbal summaries of the paper and several related papers to lay the groundwork for discussion, and a hand-out page with your outline, added citations, and relevant notes.

3) Oral Midterm. The midterm will consist of questions with short, objective answers, dealing with text readings or papers discussed prior to that date.

4) Research project. We will organize a project and collect data as a group. Each student will analyze/summarize the data and prepare a short write-up of the results. The write-up will consist of 2-3 pages of text and 1-2 pages of graphics/tables. Your write-up should integrate the project with the lecture and papers discussed in class.

5) Final exam. You will be asked to write a one page synopsis for each of several papers we have reviewed in this course. The synopsis should introduce the objectives and methods of the paper, summarize its major results, and address its implications for the field of plant-animal interactions.
Course work will be graded as follows:

Written critiques of papers (3 @10% each) 30%
Class discussion 15%
Project participation and report 15%
Discussion leadership 10%
Oral exam 15%
Final exam 15%

Students with a qualifying disability under the Americans with Disabilities Act that requires accommodations, should contact the Office for Disability. Box 8586; Tel. 266-5024; TTY 266-6837; Fax 266-6035. Suzy Hebert is the ODA coordinator.

Lecture topics:

Research strategies/hypothesis testing
Herbivory
  Plant defenses
  Herbivore counter defenses
  Arms race/co-evolution
Pollination Ecology
  Pollination syndromes
  Conservation
Seed dispersal
  Dispersal mechanisms
  Granivory/Frugivory
Classical mutualisms
  Ants/acacias
  Yuccas/yucca moths
  Figs/fig wasps
  Dodos/tambalocoque trees
  Beach mice/sea rockets
  Costa Rican forest palms/gomphotheres
Community considerations