DEPARTMENT OF BIOLOGICAL SCIENCES
COLLEGE OF ARTS AND SCIENCES

SUMMER RESEARCH OPPORTUNITIES
FOR UNDERGRADUATE WOMEN

APPLICATION DEADLINE: MARCH 1, 2004

The Department of Biological Sciences is pleased to offer the following research project(s) for the summer of 2004. Interested students are urged to contact the faculty member(s) directing the project that most interests them. By contacting the faculty member, you can discover more about the project, learn what your responsibilities will be, and if possible, develop a timetable for the twelve-week research period.

Research into Insect Visual Systems

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Have you ever wondered how other animals perceive the world? While our perception is limited to our own senses, modern science actually allows us to glimpse how other organisms sense the world. In my lab we are focusing on insect visual systems. Insects are convenient in that their nervous system is somewhat simpler than ours, and insect visual systems frequently are adapted to very definite needs. This allows us to get specific insights on the structure function relationship of components of the eye. In the lab we are currently working on stalk-eyed flies as well as the twisted wing insect, which is a rare insect with a new eye-type. You can find more information on these projects on my web-side (http://www.biology.uc.edu/faculty/buschbeck/elke.htm). We also started a collaboration with the Cincinnati Zoo which currently houses the largest insect zoo in the country. Among their insects is the Sunburst Diving Beetle, an aquatic beetle with a predatory larvae. The larvae has six little lens-eyes on each side, two of which stand out because of their atypical shape. One project will be to conduct behavioral assays to investigate the role of these oddly shaped larval eyes in pray capture (they indeed are very efficient visual predators). Please contact me or stop by my lab to enquire about details regarding this or other projects.