

**Department of Biological Sciences, and
Department of Mathematics**

MCMICKEN COLLEGE OF ARTS AND SCIENCES

**SUMMER RESEARCH OPPORTUNITIES
FOR UNDERGRADUATE WOMEN**

APPLICATION DEADLINE: March 3, 2008

The Department of Biology, along with the Department of Mathematics, is pleased to offer the following research project for the summer of 2008. 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.

**PROJECT TITLE: CONSERVATION GENETIC EFFECTS OF DIFFERING
POLLEN VERSUS SEED DISPERSAL DISTANCES.**

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Project Description

For flowering plants, we are studying how genetic diversity retention is affected in newly founded populations by several different life history characteristics. To conduct such analyses, we are using a computer program, NEWGARDEN, with which the growth and allele retention of virtual newly founded plant populations can be tracked over time to study how changes in certain life history characteristics, placement of the founders, and preserve shape and size (including corridors) affect genetic diversity as comparative populations develop. A student joining us on this project would have the opportunity to gain more understanding of population genetics and conservation genetics issues, as well as some of the factors that play a role in habitat restoration projects. Instruction on learning new computer programs and manipulating and analyzing data output would also be provided.