Departments of Biological Sciences and Mathematical Sciences
COLLEGE OF ARTS AND SCIENCES

SUMMER RESEARCH OPPORTUNITIES
FOR UNDERGRADUATE WOMEN

APPLICATION DEADLINE: March 2, 2015

The Department of Biological and Mathematical Sciences *is pleased to offer the following research project for the summer of 2015. 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 of Endangered Species: How Does Gene Dispersal Distance Interact with Preserve Characteristics

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Project Description

Stephan Pelikan (Department of Mathematical Sciences) and Steven Rogstad (Department of Biological Sciences) are engaged in modeling research aimed at optimizing conservation and restoration-rescue efforts for endangered plant species. Little is known about how preserve characteristics (e.g., size, shape, habitat heterogeneity, connectivity) interact with gene dispersal distance patterns (via seed versus pollen) in conserving the size and genetic diversity of ongoing rescue populations. This project will involve computer modeling to compare the conservation of populations with different gene dispersal characteristics in preserves with alternative designs. This is an opportunity to add to your basic knowledge of population genetics theory and plant population biology, and to develop computer programming and statistical analysis skills.