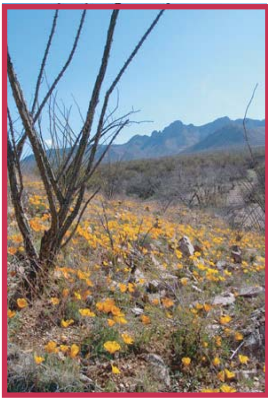


SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATES IN TUCSON, ARIZONA

REU is an NSF-sponsored program of Research Experience for Undergraduates. Students receive a summer stipend to conduct independent research projects in conjunction with NSF funded projects under the mentorship of the project's senior investigators.

Who is eligible?

Students who are US citizens or permanent residents enrolled in an undergraduate degree program. Members of underrepresented groups are especially encouraged to apply.



What is expected?

Students will develop an independent research project and support an ongoing collaborative research project involving the University of Arizona (Steve Archer and Larry Howery) and Texas State University (Susan Schwinning). Students will also develop a written report of the summer research and make an oral or poster presentation during the Fall Semester of 2009.

- ★ **What is the starting date?** - Flexible, but May 2009 is preferred.
- ★ **How much is the stipend?** - up to \$5,760 or \$480 per week.
- ★ **How do I apply?** - Express your interest by emailing Dr. Archer (sarcher@ag.arizona.edu).



What is the research about?

Worldwide, native woody shrubs and trees are encroaching into arid and semi-arid grasslands. One puzzling aspect of this phenomenon is that only some woody plant species are proliferating in grasslands, while others have maintained their historic abundances. What makes these species different? This project examines the critical establishment phase to determine which seedling traits are associated with seedling survival under desert grassland conditions, including uncertain and sporadic water availability, competition from grasses and herbivory. Field experiments at the Santa Rita Experimental Range and complementary controlled-environment experiments at the University of Arizona will determine how seedling growth (above- and below-ground), physiology and survivorship respond to a range of rainfall, competition and defoliation regimes. The results from this study are expected to improve management strategies for grassland conservation.

For more information, visit our websites: <http://ag.arizona.edu/research/archer/>

