

Arizona Rivers – HS Riparian Research Experience (RRE)

Dive into Arizona Rivers this Summer - Know any high school students who would like to study some of Arizona's last remaining wild rivers? The Arizona Rivers Project is sponsoring an 18-day field camp this summer (June 15-July 2, 2008), which will give ten high school students the opportunity to apply riparian monitoring and restoration techniques to four river sites in Arizona. Students will receive seven days of field training and mentoring at Biosphere2, followed by eight days studying four different Arizona river sites and then bringing the experience all together back at Biosphere 2.

High School Students – have you ever wanted to study plants and animals, food webs and water cycles while traveling around the state with a small group of like-minded individuals? Have you developed a science fair project or class project focused on water quality or desert ecology? Are you interested in living the life of a scientific researcher working on critical environmental issues? If so, this program is for you – please read more and send us your questions.

Arizona's riparian corridors – the zone of enhanced biologic activity and productivity surrounding our desert streams – are a vanishing yet precious resource. If we are to preserve these for future generations to appreciate, we need to better understand the interactions between their plants and animals and encourage the next generation to become stewards of the land.

This summer, Arizona Rivers will host a 18-day summer research experience for 10 Arizona high school students between June 15 and July 2. The goal of this summer's program is to develop field research skills and a greater appreciation for Arizona's precious water resources among students and their teachers. Student participants will:

- Learn hydrologic and ecologic sampling skills
- Work shadow Biosphere 2 researchers
- Learn how to make rapid environmental assessments of riparian areas
- Travel around the state to help conduct riparian zone environmental assessments
- Visit unique desert, mountain and cultural sites along the way
- Work in small groups with like-minded peers and graduate student mentors
- Share their field observations, thoughts and experiences with families and friends

Equally important will be the goal of developing similar skills and interests in a research mentor, such as a teacher, who will co-register with the student. These adults will help us sustain this effort beyond the summer experience with their partner student and others in their community.

Students will be strongly encouraged to develop a year-long, monitoring project after they have attended the RRE, tapping their new-found skills as field researchers and working with an extensive group of Arizona Rivers partners. Projects can be based on laboratory or field observations related to the ecology and/or hydrology of Arizona.

Student participants must apply with a research mentor (their teacher, qualified parent or someone who can help with their follow-up project) who will accompany them during their initial training and final reporting periods at Biosphere 2. The RRE will begin and end at Biosphere 2 (B2) near Oracle, AZ, 35 miles north of Tucson.

The RRE will be structured as follows:

June 15-18

3.5 days – Biosphere 2, field measurements training

June 19-22

4 days – Biosphere 2 research shadowing and field practice

June 23-30

8 days – various field sites on Aravipa Ck, Cienega Ck, San Pedro River, Gila River, Fossil Ck, Verde River and Wet Beaver Creek

July 1-2

2 days – Biosphere 2, data analysis, field reports and open house

Application materials can be found on the www.azrivers.org web-site and consist of a student questionnaire, mentor application, teacher recommendation and liability waiver. A \$400 participation fee is required of each student participant (a few need-based scholarships are available) and a \$50 registration fee is required of each mentor. Transportation to and from the Biosphere is not included but all other expenses will be covered, including the 3-day field training, lodging and meals at Biosphere 2 for both the student and their mentor. Applications from around the state and from both public and alternative education programs are encouraged. Applications are due on March 15. **Deadline extended until workshop is full. Please contact us ASAP if you have any questions or potential interest.** We encourage applications from under-represented groups in science.

Arizona Rivers is a relatively new educational outreach and coordinating group based at the University of Arizona, Phoenix College and at Northern Arizona University. Their mission is to facilitate collaborations between teachers/students and scientists/watershed experts to promote long-term research and monitoring of riparian environments throughout Arizona.

This effort is partially supported by an educational grant from the Science Foundation Arizona (SfAz), whose goal is to develop the next-generation of interdisciplinary scientists through encouraging challenging non-classroom science activities.

Instructors

Arizona Rivers has a unique and distributed membership that includes faculty and researchers at UA, Phoenix College and NAU. Our partners include many state and federal environmental organizations as well as many non-profit and citizen-scientist groups around the state. Our philosophy is to bring as many of these people together during our training so as to tap into their decades of expertise and passion for their work. Besides the project PI's and other program partners, the students will receive training at various times from the following personnel:

John Madden – former HS environmental science instructor with many years experience involving students in authentic, inquiry-based field science. He has taught AP environmental science as well as served on many national committees focused on improving science instruction.

Women's field leader: Melanie Lindsey – Hydrology and Water Resources graduate student.

Men's field leader: Greg Butler – Tucson Water education specialist