RIVER TRIP UPDATE

The San Juan River Program is in full swing. Last season EMA and NAU Outdoors, along with Grand Canyon Youth successfully ran 16 river trips. This year we have doubled the number of trips scheduled and updated our equipment. The San Juan River trips provide a range of multi-disciplinary programs that focus primarily on environmental and cultural education, yet also include retreats that are designed for reflection and relaxation. We have established a San Juan River Student Scholarship to support students on academic and research trips.

SAN JUAN SCIENCE: COLLABORATIVE PARTNERSHIPS TAKE SHAPE

Last November, EMA and NAU Outdoors, along with a diverse group of professors, environmental and cultural program directors, and professionals from NAU and Tucson met in Bluff, Utah with resource managers from the Bureau of Land Management (BLM), Monticello Field Office to discuss future collaborative projects that will focus on the San Juan River Corridor. The goals of the collaboration are to connect resource managers with research professionals and educators at the university and enhance NAU's environmental programs by increasing student involvement in natural resource management on the Colorado Plateau, while providing research and assistance to the BLM. Topics discussed included riparian and spring restoration, invasive plant inventory and removal, wildlife inventory, Native American cultural concerns and involvement, environmental education, and the development of a centralized information database for the San Juan River corridor.

A follow-up meeting in January took place at NAU and enabled an even greater diversity of participants on campus to attend, including the representatives from the departments of Anthropology, Geology, Parks and Recreation Management, Environmental Sciences, and the College of Arts and Letters as well as the Research Greenhouse and Arboretum, Center for Environmental Sciences and Education, Environmental Education Outreach Program, Institute for Tribal Environmental Professionals, Hopi Cultural Preservation, Colorado Plateau Cooperative Ecosystem Studies Unit, Center for Science Teaching and Learning, Grand Canyon Youth, and USGS Colorado Plateau Field Station. With widespread interest and enthusiasm from all involved, we are looking forward to integrating these projects into some of our current San Juan River trips this season and develop a comprehensive long-term plan for the future. By increasing awareness and participation of the issues and concerns of resource managers along the San Juan River corridor, we are working to instill participants with a greater appreciation and respect for this unique resource.
Slide Rock State Park Partnership

This past year, several exciting projects and opportunities for NAU have developed from EMA’s growing relationship with Arizona’s State Parks. Patty West, from the Center for Sustainable Environments (CSE) has recently submitted a proposal to the State Parks Heritage Fund for the restoration of the historic orchard at Slide Rock State Park. With assistance from Brad Blake at NAU’s Research Greenhouse, the project will take cuttings from each of the original fruit tree varieties which will be used to produce new trees, thus preserving the genetic history and varietal diversity of this historic orchard. Originally planted by the Pendley family in the early 1900s, the rich history of the orchard and property will be captured and recorded in an upcoming student interview with Tom Pendley as part of EMA’s Ecological Oral Histories Program.

In addition, EMA has recently engaged the help and enthusiasm of Charlie Schlinger from the College of Engineering and Natural Sciences to assist park personnel with a water systems evaluation and assessment plan. Students have been involved in assisting the Park as well. This past fall, EMA organized a group of 15 hard-working students who volunteered their time and effort to help clean up the park facilities and scrub graffiti off the rock walls. This project was such a success that EMA has scheduled two more volunteer service days for the upcoming year (see the events calendar for dates). In addition, we are looking forward to increasing student opportunities in the future by involving both undergraduate and graduate students in the upcoming Slide Rock State Park projects.

Slide Rock State Park is seeking to hire a temporary Park Ranger 1 and several interns this summer. Visit www.azstatejobs.gov (keyword: azparks).

Student Programs

EMA offers a wide variety of opportunities for NAU undergraduate and graduate students from all departments to get involved in EMA’s current research and environmental activities in Northern Arizona.

Hands-on experience with local agencies and land stewardship organizations is an important facet of a student’s education. EMA offers students these opportunities through internships, student projects, and student service projects. Examples include working with the BLM on the San Juan River Science Program, orchard restoration at Slide Rock State Park, and conducting interviews as part of our Ecological Oral Histories Program. In addition, EMA has limited funding for student scholarships such as the San Juan River Scholarship set up to support students on academic and research trips. We also offer recreational opportunities on the San Juan River for students through NAU Outdoors.

The 8th Biennial Conference of Research on the Colorado Plateau

Northern Arizona University’s duBois Center was host to another successful biennial conference highlighting research and resource management efforts related to physical, cultural and biological resources of the Colorado Plateau. This year, EMA was proud to sponsor a special session and panel discussion on building successful collaborations for rangeland conservation in the Southwest. With increased pressures from population growth and resource use, the role of community-based collaborations has become essential in addressing the complex issues of sustainable rangeland management. However, the effort to create successful collaborations is not without its challenges. Four panel members representing diverse organizations were invited to share their knowledge and experiences on the components and inherent challenges faced in forming successful community-based collaborations that aim at conserving and restoring rangelands for future generations.

Whitney Tilt of the Sonoran Institute shared a list of lessons learned from past and present collaboration. Peter Warren of the Arizona Chapter of The Nature Conservancy presented the successes of the Malpai Borderlands Group. Craig Conley of the Quivira Coalition explained their work with the Rowe Mesa Grassbank in New Mexico, and Tischa Muñoz-Erickson of the Sisk Lab of Landscape Ecology and Conservation Biology offered insight into the Lab’s ongoing projects with the Diablo Trust and land managers on Anderson Mesa.

EMA is working to produce a short publication that will present the knowledge and experience of these groups’ efforts, reaffirming that the collaborative process can be successful in developing long-term solutions for rangeland management. The publication will be available this April. In addition, we are awaiting acceptance of a more in-depth publication of the symposium that will appear in the Colorado Plateau Proceedings Series. Published every two years and made available at the following Biennial Conference, this publication contributes to our increasing pool of fresh data, providing baseline scientific information pertinent to the Plateau’s physical, cultural and biological resources.
ENVIRONMENTAL CAPABILITIES DIRECTORY

EMA is compiling a directory that will provide detailed information about NAU's many environmentally-focused programs, partnerships, and degree programs. This directory will serve as a reference guide for prospective students, provide the general public with a succinct list of research options available to assist in making more informed decisions, and provide NAU programs and departments with information on which to build and promote partnerships. The directory, which will be available by the end of the spring 2006 semester, will help NAU and the public realize the broad and interdisciplinary environmental programs that have been developed on campus.

ECOLOGICAL ORAL HISTORIES OF THE COLORADO PLATEAU

This Program is a concerted effort to gather the land-wisdom of long-time residents of the Colorado Plateau, including land managers, ranchers, Native Americans, and scientists. The Master of Liberal Studies Program, EMA, and the Program in Community, Culture, and the Environment offered oral history training to a cadre of graduate students. The fall 2005 Ecological Oral Histories class (MLS 599) was a great success. Oral history interviews, conducted by 13 students, will be combined with the students' final essays and will be published in a collection. Additional interviews in the spring of 2006 will be included in the publication and the interviews will soon be available in electronic form at NAU Cline Library's Colorado Plateau Digital Archives (www.nau.edu/library/specoll).

WIND ENERGY IN NORTHERN ARIZONA

The development of alternative energy solutions has become an important issue, not only for the economic and environmental health of our nation, but for reducing our reliance on foreign oil supplies. With our expertise and research facilities, NAU is in the unique position to help develop Arizona's wind resources. Over the past year, EMA has begun work on several small energy projects across Northern Arizona. Current projects include avian and bat monitoring at Sunshine Wind Park, wind monitoring on the Babbitt Ranches, and providing public access to wind maps created by Sustainable Energy Solutions (available on EMA's Southwest Ecological Information Center at http://www.ema program.com/ema web/ema/web/MapSplash.asp).

WILD BILL ECOLOGICAL CENTER

Colleen Morrison and Tracy Olinstead, working under the guidance of Wayne Fox in the College of Business, spent the last year drafting the Wild Bill Feasibility Study. Located on 24 acres of the Babbitt family's historic Wild Bill Ranch, the Center will serve as a living laboratory and gathering place for landowners, ranchers, scientists, teachers, and students. Once the feasibility study is completed, EMA will begin to raise funds for this exciting and unique project.

ECOLOGICAL PHOTO HISTORY AND MONITORING

The Babbitt Ranches and EMA have begun a long-term photo documentation and monitoring project that will provide land managers with visual baseline data that will help in assessing the status of the landscape. The objectives of the project are to detect changes in vegetation structure and composition, gain insights into the effects and dynamics of climatic and geomorphic processes, and measure the effects of trampling, grazing, and erosion using repeat photography.

PUBLICATIONS

Currently Available
The Importance of Grasslands in Northern Arizona is an eight-page brochure co-produced by The Nature Conservancy, the Arizona Game and Fish Department, and EMA. The publication is based on ecological assessments completed by TNC. It provides an analysis of the status of much of northern Arizona grasslands below 5,000 feet in elevation, information about grassland ecology, threats to native grasslands, and suggestions for improving and maintaining native grasslands. If you'd like a hard copy or electronic copy of the publication, contact Michele James at (928) 523-0715 or Michele.James@nau.edu.

In Review

Coming Soon
Building Collaborations for Rangeland Conservation. EMA is working to produce a short publication that will summarize information contained within the more in-depth peer-reviewed publication listed above. This publication will present the knowledge and experiences of the four panel members and their groups' efforts, reaffirming that the collaborative process can be successful in developing long-term solutions for rangeland management.
As President of Babbitt Ranches, he is responsible for the organization and operations of the ranches including the integration of external resources and communities into their social and ecological landscape-scale management plans. His work also includes the creation of a new economic model for sound land stewardship and developing ways of integrating it into the family business and community needs.

Bill is a Northern Arizona University alumnus, graduating in 1990 from the College of Business Administration. In 1977, he worked part-time for Babbitt Brothers Trading Co., then full-time at Babbitt's lumber company in 1980, before working at Babbitt Ranches in 1986. Bill has been influenced by Aldo Leopold's “Land Ethic”, and is committed to the progressive land management philosophy of the Babbitt Ranches; “Through our efforts of learning and understanding we are better able to join, to share, and to be a part of the ecological processes.” This April, Babbitt Ranches will celebrate 120 years, spanning 4 generations of employees and 5 generations of owners in Northern Arizona.

Upcoming Events

For a complete list of upcoming events, check out the numerous environmental programs on campus.

APRIL 6, Timothy Beatley, Theresa Feinig Professor of Sustainable Communities, University of Virginia, Cline Library Assembly Hall (NAU Environmental Lecture Series)

APRIL 7-9, Historic Orchards: A Hands-On Skills Workshop at Slide Rock State Park Historic Peeples Homestead Orchard, Sedona, with Gary Nabhan, Karin Rousten, and Patty West. $150. Registration required. Contact Patty West at 523-2942 or Patty.West@nau.edu

APRIL 20-22, Field School for K-12 Educators, Offered by the Watershed Research and Education Program at NAU. More information can be found at: http://www.watershed.nau.edu/2006FieldSchool/index.htm

APRIL 27, Melissa Nelson and Vivian Jake, “Soaoscapes of Native America”, 7:30 p.m., Cline Library Assembly Hall (NAU Environmental Lecture Series)

MAY 3-4, Green Procurement Conference, daBois Center, NAU Campus. This free conference will focus on helping the public sector to improve their green purchasing practices. More information can be found at http://www.cultivating sustainability.com

MAY 19-21, C.A. (Chet) Bowers, “Educating for a Sustainable Future,” 1 credit (MLS Summer Institute)

MAY 29-JUNE 1, EMA San Juan River Trip. For details please contact Janet Lynn at the EMA office, 523-0715 or by email at Janet.Lynn@nau.edu.


JULY 11, 13, 15, 18, 20, 22, Ron Habert, “Elements of Effective Consulting”, 1 credit; also offered as a non-credit workshop (MLS Summer Institute)

AUGUST 3-5, Southwest Sustainability Expo, NAU campus. For more information visit: www.sustainabilityexpo.com

SEPTEMBER 20-23, 33rd Natural Areas Conference, daBois Center, NAU campus. Conference Theme: Stewards of the Old and New West. More information can be found at http://www.naturalareas.org/conference.htm

SEPTEMBER 23-24, Volunteer work weekend at Slide Rock State Park. Contact: EMA for more information.

OCTOBER 1, Slide Rock State Park Apple Festival. Slide Rock State Park, in Oak Creek Canyon.