Bosque Ecosystem Monitoring Program





OUR MISSION

The mission of the Bosque Ecosystem Monitoring Program (BEMP) is collaborative long-term ecological monitoring of key abiotic and biotic processes and characteristics to promote continued education, understanding and stewardship of the riparian ecosystem to scientists, teachers, students, policy makers and the public.

www.bosqueschool.org/bemp.htm edited by: Kimi Scheerer



BOSQUE SCHOOL









Volume 5, Issue 4 September 2010

The Stories of Summer.

High School Highlights

By: Judea Wiggins (Bosque School, class of 2011)

I rekking through jungle-like conditions, salty sweat dripping down my forehead, hoping not to be munched alive by man-eating mosquitoes... that was how I spent my summer. But I loved every minute of it. I was introduced to the Bosque Ecosystem Monitoring Program (BEMP) by Mr. Shaw who is the program's co-director and currently employed at Bosque School, the school that I attend. The internship sounded like an amazing opportunity that I couldn't resist; it would give me a chance to experience the everyday life of a field biologist. I figured that the program would be an excellent way for me to explore a career possibility and would well-equip me for my future. The internship also gave me very critical skills for success, not only in the work place, but also in life. By far, taking this BEMP summer job was one of the best decisions I've ever made.

As I started Bosque School in the eighth grade, I did not have any previous experience with BEMP. I knew of its function and was constantly surrounded by its great success and popularity at Bosque School, but I never had any hands on experience. From the very first day I began the internship, Field Coordinator Jen Schuetz and Program Assistant Kristen Weil generously guided me every step of the way. I gained such a great depth of knowledge from the "high energy" job of sorting leaf litter, to conducting ground water chemistry in the bosque. One of my favorite things that I did this summer was going on the jackrabbit survey in Sevilleta with Education Coordinator Kimi Scheerer and UNM students. It was a blast sticking our heads out of the windows of a bus at 1:30 in the morning and looking for the red eye glow of the precious animals. Working for BEMP this summer was truly one of those summers that I will never forget!

By: Danny Ortwerth (Bernalillo High School, class of 2011)

was introduced to BEMP through my environmental science class at Bernalillo High School. Once a month, a member of BEMP, Kimi Scheerer, would take us to the bosque at the Santa Ana site to do monthly monitoring. Near the end of the school year she announced that two students would be hired for the summer to work. I turned in my application, and here I am.

Once I got the job and started working I realized it was better and more exciting than what I previously expected. The hospitality from everyone I met was more than I could have imagined, and the work in the bosque was very entertaining, especially ground water chemistry. For one week I went in the field to take samples and test the pH, dissolved oxygen, turbidity, and conductivity of the water along the Rio Grande. I felt as though I were a real scientist that week, carrying around a bunch of equipment and taking readings from different sensors. I was constantly learning new things whether I was in the field or the air conditioned lab (which was very nice to work in after being out in the heat). I certainly discovered more about one of the fields of work I am looking to get in to. The fact that I was working for a real 'legit' organization with scheduled hours was probably the biggest transition from the unreliable, back-breaking yard work I'm used to. The whole BEMP experience was one of the best and most constructive ways I've spent summer vacation.

Project WILD Herpetology Workshop Highlights

By: Felicia Aragon & Anna Perez-Umphrey
~ BEMP summer college interns ~

he Project WILD herpetology natural history workshop took place at the beautiful Wind River Ranch near Las Vegas, New Mexico this past July 23rd -25th. This was an extraordinary opportunity to learn how to capture and handle reptiles and amphibians and also learn various techniques to teach about these animals both in and out of the **classroom**. As BEMP interns we got the opportunity to attend this workshop and, besides getting to know awesome educators (like Kevin Holladay, the New Mexico Dept. of Game & Fish Conservation Education Coordinator, who organized the workshop) and biologists (like Charlie Painter, the New Mexico Department of Game & Fish's state herpetologist) we were outside doing hands-on learning with various species of lizards, skinks, snakes, toads, frogs and turtles. In addition to reptile and amphibian activities, the workshop also held a bird mistnetting project one morning. During the mist-netting, birds that flew into a finely woven net, were banded and released (which workshop participants including BEMP interns got to do themselves). On top of all of this there was also hands-on work with small mammal trapping and insect identification at night.

This workshop was an **invaluable experience** for BEMP interns' future careers as wildlife biologists and conservationists. Besides all of the hands on experience, we also **learned about pressing issues** such as the conservation and trade of rattlesnakes and other pets, wildlife corridors for a variety of animals, education resources and techniques, as well as making great friends AND having a fantastic time! Whether or not we become herpetologists in the future, we have gained knowledge, connections, and skills that will surely last a lifetime.









Felicia is a native of Belen and just completed her sophomore year at Humboldt State University where she studied Wildlife Biology. She has had "amazing experiences such as capturing porcupines, using radio telemetry, E. coli monitoring, necropsy and leading educational workshops" this summer while working as a summer intern for BEMP.



Anna is an Albuquerque native currently studying Fish, Wildlife and Conservation Biology at Colorado State University. She spent her summer as BEMP summer intern assisting in research, conservation and education. After a summer of fun, Anna states that she "wants to continue to dedicate her life to the natural world".



This 2010-2011 School Year

555

...student, teachers, community members, college interns, research partners, parents, agency professionals, festival goers, tribal representatives & government leaders...

BEMPin' it Up!



Raptors of the Bosque



This school year BEMP has a new and exciting member to its staff; **Gavilán** the Red-tailed hawk – an ambassador for all raptors of the bosque!

Beginning this fall, BEMP Program Assistant Melanie Keithley and Gavilán will be available for classroom visits. Together, they will be highlighting our new program "Raptors of the Bosque". This program is an introduction to raptors in which students will learn about their important role as environmental bioindicators along the middle Rio Grande bosque, as well as, their connection to other global ecosystems.

In the past, Melanie has worked as an Education Specialist and part time observer with HawkWatch International studying migratory raptors in the Sandia and Monzano Mountains, as well as, the south rim of the Grand Canyon National Park. Her passion and love of birds, the outdoors, and teaching makes her programs with BEMP highly educational and dynamic.

To schedule a classroom visit, please contact BEMP Education Coordinator Kimi Scheerer at: ksche@bosqueschool.org or 505.898.6388 ext. 128!



~ appropriate for grades K-12 ~ length of class = 1 hour

Save the Date for Next Year's Congress events...

Our end-of-the-year student Congress events are designed to bring students together to share in their environmental monitoring experiences. Grades 7-12 will celebrate on Thursday, April 28th; Grades K-6 on Friday, April 29th 2011!

April 28th & 29th, 2011

















Attention 3rd, 4th and 5th grade teachers!

You and your class are invited to participate in the 2010/2011 **Energy for Education** program.

Students will learn about:

- Natural resources
- · Renewable and non-renewable sources of energy and how they are used
- Energy consumption and conservation

The program consists of 2 presentations, each 1 hour long. Presentations can be scheduled Monday-Friday, beginning August 30, 2010.

THIS IS A FREE PROGRAM OFFERED TO NEW MEXICO PUBLIC SCHOOLS, GRADES 3-5.

To schedule a presentation please contact:
 Miranda Miller
 Instructional Coordinator
 mmiller@slo.state.nm.us
 505-827-4003



New Mexico State Land Office Patrick H. Lyons Commissioner of Public Lands

NOTES...

Bureau of Land Mgmt.

from: El Malpais NCA

The BLM El Malpais outdoor mentors can create 1/2 to full day educational adventure programs for your students! Each FREE program includes creative curriculum, fun games & ecosystem information that stimulate AND educate!

Education Ranger Contact INFO

Jackie, Jenn, Joe & Paul Bureau of Land Management El Malpais NCA PO Box 846 Grants, New Mexico 87020 PHONE: 505.285.5041 FAX: 505.287.6607 ~ classroom visits available!!! ~

TOPICS INCLUDE

nature hikes navigation plant identification fossils volcanoes tracking geology birding service learning

Participating Schools & Student Groups

Albuquerque Biopark Abq. Institute of Math & Science Albuquerque Talent Development Bandelier Elementary Bernalillo Middle & High School Bosque Farms Elementary Bosque School Cottonwood Valley Charter School **Dolores Gonzales Elementary Duranes Elementary** East Mountain High School Escuela Luz de Mundo Gallup Middle School Georgia O'Keeffe Elementary Harrison Middle School Holy Ghost Catholic School Hoover Middle School Hope Christian School

Horizon Academy John Baker Elementary John F. Kennedy Middle School Kewa Middle School Kewa Peublo La Academia Esperanza La Cueva High School Los Lunas High School Mountain Mahogany NM Museum - Young Explorers North Star Elementary Ohkay Owingeh Comm School Pueblo of Santa Ana Rio Grande Elementary School on Wheels Alternative HS Sevilleta National Wildlife Refuge Van Buren Middle School Zia Elementary

New Mexico Watershed Watch / BEMP Partners:

Cimarron High School, Cochiti School, East Mountain High School & United World College



IMPORTANT DATES

Sept. 20-24th – BEMP monthly monitoring

Sept. 27-Oct. 1st – BEMP pitfall trapping

Oct. 7-9th – EEANM/NMCTM/NMSTA conference

Oct. 13-14th – Abg. Water Festival (4th graders)

Oct. 16th - Sevilleta NWR Dia del Rio event

Oct. 18-22nd – BEMP monthly monitoring

Oct. 21-22nd – Rio Rancho Water Festival (4th)

Nov. 15-19th – BEMP monthly monitoring

Nov. 17th – Green Trails student conference

To **R**egister, **E**xhibit, **P**resent *and/or* **L**earn more... visit:







www.eeanm.org www.nmsta.org www.nmctm.org

Soar to Greater Heights

Shaping the Future Through Education

Join us this Fall 2010 in Albuquerque, NM

EEANM/NMSTA/NMCTM Annual Conference

LOCATION: Bosque School, 4000 Learning Road NW (87120) DATES: October 8th & 9th Pre-sessions: October 7th

Bosque Bellodi









GREEN Ideas at Work!

Bring your OWN water bottle and/or coffee mug and be entered into a raffle to WIN prizes!

Featuring Friday evening Keynote

Brad Lancaster

Author, Activist, Educator, Land Steward 6:00 pm ~ Friday, October 8th





In cooperation with Albuquerque Academy & Sandia National Labs!



Join New Mexico environmental educators, science & math teachers at their joint annual conference this October 7th-**9**th at Bosque School in Albuquerque, New Mexico. Get updated on state math, science and EE initiatives; network with regional professionals and check out keynote speaker Brad Lancaster during this 3 day event. To learn more and register, visit:

http://nmteach1o-registration.eventbrite.com.

HANKYO

to those that sponsor the BEMP program

Albuquerque Community Foundation ♦ Bernalillo County ♦ Bosque School ♦ Captain Planet Foundation, Inc.

◆ Educational Foundation of America ◆ Goodman Family ◆ McKee/Crawford Foundation ◆ Messengers of Healing Winds Foundation ♦ Middle Rio Grande Bosque Initiative/U.S. Fish and Wildlife Service ♦ Middle Rio Grande Conservancy District ◆ National Science Foundation's Schoolyard

Education Program at UNM's Sevilleta Long Term Ecological Research Site ◆ New Mexico Association of Soil & Water Conservation Districts ♦ New Mexico Forest & Watershed Institute at Highlands University ◆ PNM Inc. ◆ Sandoval County ♦ U.S. Army Corps of Engineers ♦ U.S. Bureau of Reclamation ◆ USDA Forest Service ◆ Wal-Mart Foundation

♦ 7 Bar Foundation