

Bosque Ecosystem Monitoring Program

Volume 4, Issue 4
June 2009

Here comes the HEAT!



SUMMER

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



Spring Congress Events Excite and Delight

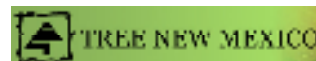
As the end of the school year approaches, BEMP likes to CELEBRATE by bringing students that spend time in the environment together to share in their experiences. Kicking off the events on Thursday, April 30th (in conjunction with the Riversource managed Watershed Watch program) 7-12th grade students presented at the beautiful El Rancho de las Golondrinas, just south of Santa Fe. Over 120 students from seven different schools shared their year-long monitoring and research experiences along New Mexico's watersheds.

The following day, Friday, May 1st, another 135 3rd-6th graders joined forces at Bosque School, under the congratulatory eye of New Mexico State Senator Dede Feldman. Sharing in riddles, rap songs and eco-friendly dances – students learned how their year-long data collection affects middle Rio Grande valley management strategies courtesy of BEMP Science Director Dr. Kim Eichhorst.

The Bosque School event also hosted educators from Albuquerque Open Space, Petroglyphs National Monument, Avian Ambassadors, the New Mexico Herpetological Society and UNM's Bosque Intern class. Capping off both events, Tree New Mexico sponsored environmental entertainer, Tim Womick, got students excited about the interesting and important role trees play in our forests and watersheds. Thanks to everyone who made both events possible!



Tim Womick turns an unsuspecting student into an oh-so-important tree during the Friday event!



www.treenm.com



New Mexico Herpetological Society representative Tom Eichhorst shows off his collection of snakes (top left) as Petroglyphs National Monument Educator Susana Villanueva shares cultural artifacts with visiting students (bottom left). Looking for a good way to get your family outside this summer? Celebrate National Get Outdoors Day (right) at Albuquerque's Tingley Beach with a host of involved agencies and exciting activities!

EEANM Outstanding Educator of the Year!



Mary Erwin (right) graciously accepts her award at the Bandelier Elementary ceremony after principal Glenda Armstrong (left) boosts of her school-wide accomplishments.

Congratulations to **Mary Erwin**, a 3rd grade teacher at Albuquerque Public School's Bandelier Elementary and 5 year **BEMP site representative** at the Rio Grande Nature Center State Park, for receiving the Environmental Education Association of New Mexico's (EEANM) **Outstanding Environmental Educator**

Award for 2008! Mary received her well deserved kudos and plaque at a high energy, kid-frenzied and fun-filled ceremony at Bandelier Elementary on Friday, May 8th. Also present at the ceremony were Bandelier principal and host Glenda Armstrong, EEANM president Christy Tafoya, New Mexico State Senator Cisco McSorley and a bunch of us BEMPer's: Dr. Cliff Crawford, Dr. Kim Eichhorst, Christian LeJeune and me, Kimi Scheerer.

Mary, a classroom teacher of 17 years spearheads a variety of activities at Bandelier Elementary designed to get students involved and connected to their community. This past year, through legislative funding sponsored by Senator McSorley, she helped to organize a school wide Outdoor Garden at Bandelier, linking kids with the staples of their environment and diet. Future plans include a large-scale composter and rain harvesting technology.



Left to Right: EEANM president Christy Tafoya, Bandelier principal Glenda Armstrong, Awesome Teacher Extraordinaire Mary Erwin, me (BEMP Education Coordinator & EEANM vice-president Kimi Scheerer) and Senator Cisco McSorley.

In her own words, Mary states "My best days teaching are usually spent outdoors and I feel very lucky to work at something that I believe is changing the world for the better. Not too many people can say that about their work!" Mrs. Erwin truly is an inspiration to both her students AND her colleagues. ☺

Learn more about Bandelier Elementary by visiting their website at:

www.aps.edu/aps/bandelier/index.html



The Environmental Education Association of New Mexico (EEANM) is a nonprofit organization which provides, promotes, and enhances quality environmental education by offering New Mexicans opportunities for professional development, communication, and partnership. Check out: www.eeanm.org for more info!

Share your good fortune... *donate blood on Saturday, June 13th at REI in Albuquerque.*
And get a 20% coupon for their Scratch & Dent Sale!

www.rei.com

Advanced Project WILD Professional Development

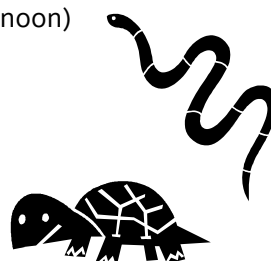
July 31-August 2, 2009



Turtles, Frogs, Lizards & Snakes: combining field research, your students and citizen science!

COST: FREE!!! Bring your own food & camping equipment; kitchens & bathrooms available.
WHO: educators of any kind and interested adults (no pets please)
WHEN: 7/31-8/2, 2009 (Friday, 6:00pm – Sunday, noon)
WHERE: Wind River Ranch - NE of Watrous, NM

REGISTRATION: Kevin Holladay
Project WILD Coordinator
NM Dept. of Game & Fish
505.276.8095
kevin.holladay@state.nm.us



Wind River Ranch

Mission Statement: To conserve the wild landscapes through ecological restoration, research and education.

www.windrivranch.org

This 2008-2009 School Year

4931

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

BEMPin' it Up!

Fish Rearing Fun and Refugium

The American Fisheries Society (AFS) Western Division Annual Meeting took place in Albuquerque May 3-7th at the downtown Hyatt Regency Hotel and BEMP staff was lucky enough to help with Silvery Minnow Refugium and Sanctuary Field Trip on Thursday, May 7th.

About 17 participants, Dan Shaw (BEMP Coordinator and Wildlife Biologist extraordinaire) and I first headed south to the Los Lunas Silvery Minnow Refugium – a beautiful, if not expensive (\$1.7 million dollars), replica of the overbank flood channels of the middle Rio Grande valley. The facility, managed by Douglas Tave, a friendly and knowledgeable fisheries biologist with years of experience, was designed by HDR/Fish Pro and funded by the New Mexico Interstate Stream Commission and New Mexico Water Trust Board. Construction was finished in

March of 2008 and became fully operational just this year. The first batch of 100 silvery minnows, stocked on May 1st, were quietly swimming in holding tanks awaiting their release into the full pond system at the beginning of June. The refugium is a cutting edge mimic of the historic flooding-based Rio Grande system. It provides habitat for the minnows throughout their life stages while being mindful of water use here in the dry, arid southwest. It highlights a flowing river, changeable islands and backwater ponds all surrounded by native vegetation and a surprisingly innovative blue heron excluder device. The stream, which measures 458 feet long and varies in width from 7-21 feet, maintains an average depth of about 2-2 1/2 feet, undergoes



AFS Field Trip participants smile by the 1.7 million dollar "mini" Rio Grande" replica.
Photo by Dan Shaw

passive mechanical aeration and consumes only 2 acre feet of water per year. As Southwest Contractor's Best of New Mexico 2008 Small Projects, Best of the Best in the US 2008 Small Projects and the American Council of Engineering Companies Excellence in Environmental Engineering Award for 2009, the Los Lunas refugium has high hopes of assisting in the recovery of these tiny keystone species of the southwest!

Our next stop took us the City of Albuquerque and New Mexico Interstate Stream Commission's joint Minnow Rearing and Breeding Facility at Albuquerque's Biopark. This facility, managed by the delightful Terina Perez, has been in operation since June of 2003 and has produced over 368,000 minnows that have been released into the Rio Grande and another million plus that have been sent to other facilities. This oval-shaped re-circulating pond, allows for variable habitat using a system of sandbags, natural vegetation and sand/silt substrate all while maintaining a normal operating depth of about 60-64 cm. Also designed by HSE/Fish Pro, it received the Best of New Mexico Civil/Infrastructure Project Award in 2003.

In addition to this nifty re-circulating system, the Biopark facility also houses an indoor culture system designed for hatching and early life-stage rearing and 12 outdoor holding tanks. One of which was holding the illusive Zuni bluehead sucker (*Catostomus discobolus yarrowi*) which is also on the New Mexico Department of Game & Fish's endangered species list.



Refugium Manager Douglas Tave (left), associate Louie Toya (right) and Assistant Manager Alison Hutson (not pictured) oversee the daily operations of the \$1.7 million dollar facility.



The Biopark Minnow Rearing and Breeding Facility is closed to the public, but located at the City of Albuquerque's Rio Grande Botanic Gardens.



American Fisheries Society

The mission of the American Fisheries Society is to improve the conservation and sustainability of fishery resources and aquatic ecosystems by advancing fisheries and aquatic science and promoting the development of fisheries professionals.

Learn more at: www.fisheries.org

NOTES...

TIJERAS, NM

from the Community!

Talking Talons Youth Leadership announces the scheduling of WILDFEST 2009 for Saturday, July 25 from 10 am to 4 pm at Roosevelt Middle School in Tijeras. General admission to WILDFEST is free, with wristbands available to purchase for access to some additional activities.

www.wildfest2009.com



For more Info:
 Contact: Shelby Blessing
 Phone: 505.281.1133
shelby@talkingtalons.net

LEARN about the environment, wildlife and personal health in an atmosphere of fun and discovery.

Participating Schools & Student Groups

Albuquerque Biopark	John F. Kennedy Middle School
Alb. Institute of Math & Science	La Academia Esperanza
Bandelier Elementary	La Cueva High School
Bernalillo Middle & High School	Los Lunas High School
Bosque School	Mountain Mahogany
Cottonwood Valley Charter School	NM Museum – Young Explorers
Dolores Gonzales Elementary	Ohkay Owingeh Comm School
Duranes Elementary	Pueblo of Santa Ana
East Mountain High School	Rio Grande Elementary
Georgia O'Keeffe Elementary	Rio Grande High School
Gallup Middle School	River Retrievers Home School
Harrison Middle School	Santo Domingo School
High Desert Home School	School on Wheels Alternative HS
Hoover Middle School	Van Buren Middle School
Hope Christian School	Washington Middle School
Horizon Academy	Zia Elementary

New Mexico Watershed Watch / BEMP Partners:

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



IMPORTANT DATES

June 16th – BEMP monthly monitoring
 June 22-26th – BEMP Pitfall Trapping
 July 21st – BEMP monthly monitoring
 August 18th – BEMP monthly monitoring
 August 20th – APS first day of school
 August 24th – BEMP Study Trip calendar opens
 April 29th – BEMP/Watershed Watch Congress
 2010 ~ 7-12th grade
 April 30th – BEMP Student Congress
 2010 ~ K-6th grade



We love bugs!

Bosque Eco-Science... the Camp ~ 2009



Photo: Melanie Keithley

SUMMER CAMP

~ sponsored by BEMP & Bosque School ~

WHO: students entering grades 4-6

WHAT: Bosque Biology Bonanza

- June 15-19th
- July 20-24th

WHAT: Weird & Wacky

Wildlife Biology

- June 22-26th
- July 20-24th

WHERE: Bosque School campus (Albuquerque)

TUITION: \$195/session, scholarships available

CONTACT: Colleen at cseag@bosqueschool.org

For More Information, visit:

www.bosqueschool.org



Also Featuring:

From Farm to Table

- June 29th-July 2nd

The Albuquerque Geoscape

- July 6-10th



THANK YOU

to those that sponsor the BEMP program

Albuquerque Community Foundation ♦ Bernalillo County ♦
 Bosque School ♦ Educational Foundation of America ♦
 McKee/Crawford Foundation ♦ Messengers of Healing Winds
 Foundation ♦ Middle Rio Grande Bosque Initiative/U.S. Fish
 and Wildlife Service ♦ 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 Bosque
 Restoration Program ♦ U.S. Bureau of Reclamation ♦ USDA
 Forest Service in cooperation with the Middle Rio Grande
 Conservancy District ♦ Wal-Mart Foundation ♦ 7 Bar
 Foundation