

Bosque Ecosystem Monitoring Program

Volume 2, Issue 2
December 2006

Happy Holidays!



It's a very
BEMPY holiday!

OUR MISSION

The mission of the Bosque Ecosystem 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



The University of New Mexico



Hawks Don't Lie

You may have already noticed the smiling face of new BEMP Program Assistant Melanie Keithley around town. She's a New Mexico native, hard-working student, previous Natural History Museum science camp instructor, and accomplished birder who has spent almost five years working with HawkWatch International. HawkWatch is a raptor rehabilitation program and Melanie has filled an assortment of roles working as an educator, volunteer trainer and even care-giver to Gavilán, a red-tailed hawk she houses in her back yard. Not bad for a 22 year old Biology major at Central New Mexico Community College AND the University of New Mexico.

Lucky for BEMP, she has become our new Program Assistant and helps the program in a variety of ways. Entering data for Science Director Dr. Kim Eichhorst, working part time as an outreach educator with Education Coordinator Kimi Scheerer, and toughing it out in the field with Field Coordinator Jen Schuetz keeps



Melanie shows a local student how our groundwater "beepers" work at the Santa Ana Environmental Fair.

Melanie busy three days a week.

So what brought the inspiring Ms. Keithley to the doors of BEMP? According to Melanie, she really enjoys "fieldwork and data collections that are scientific," as well as "the kids' reactions to nature." For her, being outside "feels [like the] most comfortable" place to be! Well... that works out just perfect then in the world of BEMP!



BEMP PROGRAM UPDATES

- ◆ bookmark our website: <http://www.bosqueschool.org/bemp.htm>, things are ALWAYS changing!
- ◆ turn the page and check out some great environmental education funding sources from city to nationwide \$\$\$
- ◆ did someone say "BEMP CALENDAR"??? – turn to page 3
- ◆ don't forget to mark down those "Important Dates" on the back page

Curriculum Corner



La Cueva, and BEMP sites and Beavers... oh MY!

After startling some La Cueva students at the Alameda BEMP site this last September, we are pleased to announce that LaCueva High School environmental science and biology students will be taking over monthly monitoring details at our Bobcat field site. Bobcat is one of the six BEMP sites that bracket the new San Juan Chama Drinking Water Diversion dam. It is very close to La Cueva teachers' Lisa Shibata and Jason DeWitt's ongoing BEMP beaver studies with Dr. Paul Polechla, Research Associate Professor at UNM.

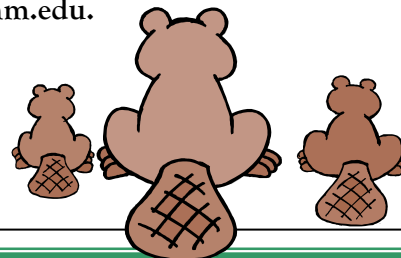
Shibata and DeWitt have been traveling with students to the Open Space area just south of Alameda bridge for about three years. The La Cueva teachers, Dr. Polechla and students study signs of beaver activity such as: tracks, cuttings, trails, bank dens, lodgings, and scent mounds. This research not only helps monitor beaver population and abundance along the Rio Grande, but also examines what the beavers are eating (i.e. what species of trees they prefer). Pretty exciting stuff if you're into riparian mammals!

This beaver research and education program started as a collaborative project with Bosque School student Thomas Nichols and BEMP Coordinator/Bosque School teacher Dan Shaw back in 2001. It was later linked with Polechla to involve more in-depth studies. Additional activities have included wrapping cottonwoods with chicken wire to prevent loss of native vegetation and canoe surveys down the Rio Grande. Several schools have been involved in this program, including Dan Shaw with Bosque School, Chuck Buxbaum with Sandia Prep, and Lisa Shibata/Jason DeWitt with La Cueva High School.

Interested?? Contact Dr. Paul Polechla at UNM: ppolechl@sevilleta.unm.edu.

inappropriate
JOKE
or is it?

Two beavers walk into a house, one leaves the door open... the other beaver immediately says "shut the *dam* door".



TEACHERS

You're a busy lot, but we want you to have the resources to have fun with nature whether it's the bosque, a local park, your classroom or one of the amazing zoos, aquariums, or museums here in New Mexico! How are you going to do it??? Let us help...



Grants that get you MONEY:

- ♦ \$500-\$3,000: PNM Classroom Innovation Grant – www.pnm.com/innovation
Deadline: February 5th, 2007
- ♦ up to \$5,000: Future Fisherman Foundation – <http://futurefisherman.org/programs>
Deadline: March 2nd, 2007

Classroom Activities for FUN and LEARNING:

- ♦ Project Learning Tree: Activity 20 – Environmental Exchange Box: elementary teachers looking for project partners, contact – Jaclyn Stallard, Program Assistant PLT, jstallard@plt.org... For more info: www.plt.org.

Outdoor Education Community SUPERSTARS:

- ♦ New Mexico Statewide Outdoor Education Initiative: <http://outdoor.riversource.net> – see how YOU can get Involved and "leave no child inside"



NMEEA Teacher of the Year!!

Congratulations to New Mexico Environmental Education Association's (NMEEA) Teacher of the Year: Kerri Lathrop of East Mountain High School!!! Kerri has been a strong classroom supporter of BEMP for many years and we applaud her monumental efforts to get her students outside and learning about their native surroundings!

Build your own Aquifer!

Concept: To illustrate how aquifers, surface water and groundwater are related!

Age: I did it with 2nd graders through college!

Materials: clear plastic cups (6-8 oz.) sand/dirt or rice
rocks/gravel or beans (kidney & pinto) bendy straws or pipettes
play-dough or modeling clay water
blue food coloring



Great for the classroom
and easy to take home!

Activity: Place about 2" of gravel or beans into the cup. Tint the water blue and pour into cup to cover gravel or beans. This is your deep aquifer and holds the purest water that has been filtered (percolated) over many years.

Make a pancake with play-dough or clay and cap the water and gravel! This represents the confining layer that separates the deep aquifer from the shallow groundwater.

Cover the play-dough/clay layer with about 1" of sand or rice. Pour in blue water to just below the surface. This represents the groundwater table and is the water utilized by plants, etc.

Carefully insert a straw into the cup along the side. This represents a well that pumps water to the surface. **Where does your drinking water come from??**

Adapted from Children's Water Festivals "How to Make Your Own Aquifer".



CALENDAR CONTEST

Have your elementary, middle, or high school students create a masterpiece of what BEMP means to them, your school, or the community!

Announcing BEMP's first ever *CALENDAR CONTEST!!!*
"How", you may ask "does it work??"

1. Have your students create a BEMP masterpiece 8 1/2" x 11"
2. submit art to Education Coordinator Kimi Scheerer at Bosque School by **Friday, March 30th**
4000 Learning Road, NW
Albuquerque, NM 87108
3. come to our BEMP Student Congress to find out who the winners are and get your *new* BEMP calendar (complete with BEMP monitoring dates and nifty BEMP factoids)
4. there are 12 months every year... that's 12 chances to win!

Calendar Contest!!!

Did you see that??

Oh my Gosh... BEMP is going to print its very own BEMP-a-licious 12 month school calendar (page 3)! Your students' art could be featured... in real live print. Sounds like a great Christmas gift; now doesn't it?

Questions, Comments, Concerns... Stories, Poems or Fables – contact Kim Scheerer at:

ksche@bosqueschool.org

Participating Schools & Student Groups

APS School on Wheels
Bandelier Elementary
Bel-Air Elementary
Belen High School
Bernalillo High School
Bosque School
Cottonwood Valley Charter School
Creative Education Prep Institute
Dolores Gonzales Elementary
Duran Elementary
East Mountain High School
Harrison Middle School
High Desert Home School
Holy Ghost Middle School
Hoover Middle School
Hubert Humphrey Middle School
Horizon Academy
Jimmy Carter Middle School

John F. Kennedy Middle School
La Cueva High School
Los Lunas Elementary
Los Ranchos
Montessori of the Rio Grande
Monte Vista Elementary
Montezuma Elementary
Ohkay Owingeh Comm School
Pueblo of Santa Ana
Rio Grande Elementary
Sandia High School
Sierra Vista
South Valley Academy
Tohatchi High School
Tohatchi Middle School
Washington Middle School
Wingate Elementary
Zia Schools



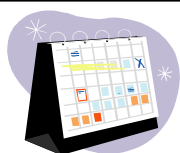
Porcupine Kissing?

Want to kiss a porcupine?? Well, I certainly won't encourage it, but I'd be happy to lead you to it!

This November, students from Bosque School's Advanced Wildlife Studies Seminar and 6th grade Science class helped trap, capture, sedate, and tag one of our bosque porkies. With the guidance of Albuquerque veterinarian Dr. Susan Dicks, BEMP students radio-collared our first porcupine of the school year. If you would like to bring your students for a tromp in the bosque and a telemetry hunt for our porcupine just get in touch!

For more information or to schedule a trip contact Kimi Scheerer at Bosque School: 505.898.6388 or ksche@bosqueschool.org! Also check out our website at: <http://www.bosqueschool.org/bemp.htm>

♦ we also have pre-made Bosque Ed Guide "Changing River" kits available to check out ♦



IMPORTANT DATES

Nov. 27th – March 30th – *Fuel Load Studies*:

contact Jen if you want to participate (505.277.0758)

December 18th - Jan 2nd – APS Holiday Break

December 19th – BEMP monthly collections

January 11th – Aldo Leopold's Birthday

January 16th – BEMP monthly collections

January 18th-20th – Quivira Coalition Conference

February 20th – BEMP monthly collections

February 26th - Mar 2nd – Groundwater Chemistry

March 8th-9th – ABQ's Xeriscape Conference

March 20th – BEMP monthly collections

April 27th, 2007 – **BEMP STUDENT CONGRESS**

THANK YOU

to those that sponsor the BEMP program

Albuquerque Community Foundation ♦ Bernalillo County ♦ Bosque School ♦ Education 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 Sevillea Long Term Ecological Research Site ♦ New Mexico Association of Conservation Districts ♦ PNM Foundation Classroom Innovation Grant ♦ Sandoval County ♦ Thomas Nichols ♦ U.S. Army Corps of Engineers Bosque Restoration Program ♦ U.S. Bureau of Reclamation ♦ 7 Bar Foundation