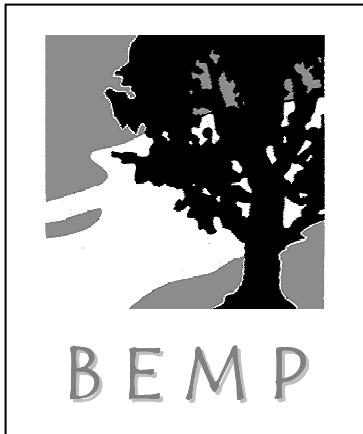


# Bosque Ecosystem Monitoring Program

Volume 2, Issue 1  
August 2006

## BACK TO SCHOOL



### 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](http://www.bosqueschool.org/bemp.htm)

## Marine Biologist in the Desert!?!

“What?” you may ask “is a marine biologist doing in the desert?” Many people have asked... including my own parents; well, I’m here to tell you!

Hello! My name is Kim Scheerer and I am BEMP’s new Education Coordinator. Only 2 million years too late for the oceans of New Mexico but here I am... experiencing life in the Southwest.

After obtaining my Bachelor of Science degree at Alma College in my home state of Michigan I decided to brave the Pacific and 2 more years of schooling for a Masters degree in Marine Biology at James Cook University in Australia, a brilliant experience that ultimately lead to a career in environmental education.

I’ve been lucky enough to work in a variety of locales including: the California coast, Georgia, Michigan, the Caribbean, and most recently the Florida Keys. What is the common link?



Hi!! This is me on my first trip along the river upstream towards Taos... I can’t wait to raft it in the spring!

Ecology... and of course KIDS!

Although the ecosystems may vary, the laws of science and teaching are my constants: predation, territoriality, buses racked with kids, exploring nature, poking at critters ... just add some green chile and New Mexico here I come! ☺

As a new member of the BEMP program look for “Kimi-influenced” updates. Don’t worry I won’t be dropping sea turtles in the Rio Grande but keep your eyes on our program... starting with the listings below!



## BEMP PROGRAM UPDATES

- ◆ bookmark our website: <http://www.bosqueschool.org/bemp.htm>, you’ll see things like a NEW Education & Outreach page including Field Trip Activity info & charter bus listings!
- ◆ turn the page and check out the NEW bosque Curriculum Corner
- ◆ don’t forget to browse our Important Dates section, a great reminder for those involved with BEMP and Albuquerque education



The University of New Mexico



# Curriculum Corner

Alright, so it's more like two pages and less like a "corner" but Curriculum Page didn't seem witty at all. Here's the scoop... we are enlarging our quarterly newsletter by a whole two pages just for you! This space will not only provide you with current BEMP happenings but also nifty tid-bits of relevant bosque information and activities. We know you're already impressing the heck out of your students, fellow administrators, friends, family, and definitely your dog... we're just going to provide you with some additional bosque banter that will keep them on their toes! If you haven't already guessed it this issue's theme is bugs... insects... arthropods, creepy crawlies... whatever title you like check it out!

## June's surface active arthropod collection... rolli polli's and much MUCH more!

Surface active arthropod traps or "pitfall traps" as they are more commonly known serve a variety of functions. They are opened for 48 hours three times a year and provide us with information about the presence, absence, abundance and diversity of many different bosque arthropods. In addition, information about habitat conditions can also be determined by arthropod findings. For example, if you find a beetle from the family Carabidae (ground beetles), you already have a clue about your habitat. They are an **indicator species**, indicating high amounts of localized moisture. You've probably also noticed the now common *Armadillidium vulgare* (see below) also known as the pillbug or rolli polli! This little armadillo-like arthropod is an introduced species from Europe that has taken over not only your backyard garden but the bosque as well. And guess what? It's actually classified as a crustacean... see, being a marine biologist actually IS useful in the desert! ☺



UNM student and BEMP intern Chuck Brown helps collect Surface Active Arthropod traps during our June session



And you thought a spider in the corner or your classroom was bad... check out this Jerusalem cricket (*Stenopelmatus fuscus*) or what is also known as "Child of the Earth" that UNM interns Christian Gunning and Chuck Brown found at our Alameda site!

Q

What is a bee's favorite snack??

A

Sting Cheese!

### TEACHERS



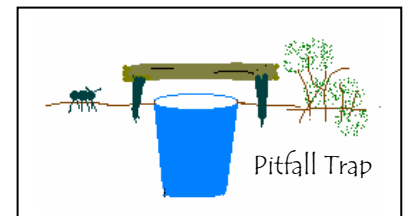
Make copies of the **WORDSEARCH** on the next page to introduce bugs, the bosque, or nature in general! It can even be used to occupy your students while you're busy being brilliant!



*Armadillidium vulgare*

### Build your Own Pitfall Trap

- ◆ 2 plastic cups (poke a hole in the bottom one to drain H<sub>2</sub>O)
- ◆ 6x 6 inch plywood squares (1/4" thick works great)
- ◆ 4 nails or screws = 1 for each corner to keep big beasties OUT
- ◆ dig a hole deep enough to fit the entire cup, you want the lip of the cup level with the ground surface to allow arthropods to fall right in!
- ◆ leave open for 48 hours, collect and discover!
- ◆ don't forget to cover your trap or remove it



Try putting several pitfall traps on your school grounds. Look for differing habitats: an open field, a shady spot, & even mixed in with the landscaping.

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_



## Bugs of the Bosque

T N C S A Y S I B E E T M R B I T B L O K L S R Y  
V U P T L L O Y E U C A S E A V R A L G O L L R C  
R T E I P K A H I P I Y F T L W B L E I E D U E N  
Y Y S N C T T R P B G L L M X B E T Y W L S V D A  
A L T K N T G W U I T N C F I N O Y L R T K P I X  
I F F B T H P M Y N Y V O E L L T T F A E G G P A  
R R M U U P H T P I L C I I N E L B I E E P R S C  
T E A G P E E S P N F F R C P T S I U U B E N T M  
R T L N E T A C U K N G C I U R I M P G Q P L Q C  
T T L R I W A L P E O M T S C T O P A E T S V I W  
S U T M A G F I P D G T T S F K E C E D D E O U L  
A B R L L L I T Y M A L C L A T E E S D P E O M A  
C E S E T A H C A O R K C O C I C T L D E T L E L  
T L A G S L M U M L D L E E Y O L E M F O N H T R  
V G N K L P R K E R G U B W O S N G S T F A I I G

## WORD LIST

|           |           |           |
|-----------|-----------|-----------|
| MOSQUITO  | DAMSELFLY | DRAGONFLY |
| LARVAE    | CRICKET   | STINKBUG  |
| BUTTERFLY | BEETLE    | WASP      |
| SOWBUG    | SPIDER    | BEE       |
| FLY       | CENTIPEDE | NYMPH     |
| MILLIPEDE | ANT       | COCKROACH |

Bosque Ecosystem Monitoring Program

# Something to Share???

let us know...

Do you have an environmentally amazing student? An intriguing bosque story, interesting field facts or bosque teaching tips???

Send them to us and we'll make sure to share!

[ksche@bosqueschool.org](mailto:ksche@bosqueschool.org)

## Participating School & Student Groups

|  |                                |
|--|--------------------------------|
| APS School on Wheels                     | La Cueva High School           |
| Bandelier Elementary                     | Los Lunas Elementary           |
| Bel-Air Elementary                       | Los Ranchos                    |
| Belen High School                        | Montessori of the Rio Grande   |
| Bernalillo High School                   | Monte Vista Elementary         |
| Bosque School                            | Montezuma Elementary           |
| Cottonwood Valley Charter School         | Ohkay Owingeh Community School |
| Creative Education Preparatory Institute | Pueblo of Santa Ana            |
| Dolores Gonzales Elementary              | River Rangers                  |
| Duranes Elementary                       | Rio Grande Elementary          |
| East Mountain High School                | Sandia High School             |
| Harrison Middle School                   | Sierra Vista                   |
| High Desert Home School                  | South Valley Academy           |
| Holy Ghost Middle School                 | Tohatchi High School           |
| Hubert H. Humphrey Middle School         | Tohatchi Middle School         |
| Horizon Academy                          | Washington Middle School       |
| Jimmy Carter Middle School               | Wingate Elementary             |
| John F. Kennedy Middle School            | Zia Schools                    |



## IMPORTANT DATES

August 21<sup>st</sup> – UNM semester begins  
September 4<sup>th</sup> – Labor Day  
September 19<sup>th</sup> – BEMP monthly collections  
September 21<sup>st</sup>-25<sup>th</sup> – BEMP Groundwater Chemistry  
October 3<sup>rd</sup>-5<sup>th</sup> – BEMP pitfalls open & collect  
October 10-14<sup>th</sup> – NAAEE conference (St. Paul, MN)  
October 17<sup>th</sup> – BEMP monthly collections  
October 19-20<sup>th</sup> – ABQ Children's Water Festival  
November 7-11<sup>th</sup> – NAI workshop (Abq., NM)  
November 21<sup>st</sup> – BEMP monthly collections  
December 16<sup>th</sup> – UNM semester ends  
December 19<sup>th</sup> – BEMP monthly collections  
April 27<sup>th</sup>, 2007 – BEMP STUDENT CONGRESS

## Funding Available for Field Experiences



The Bosque Ecosystem Monitoring Program (BEMP) offers field trips to Albuquerque's stretch of the Rio Grande. Bring students to the bosque and participate in a long-term ecological study monitoring the health and ecology of our cottonwood forests. Field trips can include groundwater chemistry, arthropod trapping, porcupine tracking, and many other ecological activities. All data collected by students becomes part of UNM research projects and assists with bosque management activities. **Get your students in the field and involved in their community...** limited funding for transportation and substitute teachers is available!

For more information or to schedule a trip; contact Kim Scheerer at Bosque School: 505.898.6388 or [ksche@bosqueschool.org](mailto: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 ♦

# 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 Sevilleta 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