

Bosque Ecosystem Monitoring Program

Volume 4, Issue 3
March 2009

A startling Spring!



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

Overbank Flooding at the Crawford Site

Spring is on its way, and with it, the warmer temperatures that mean snowmelt runoff and high river flows in the Rio Grande. With permits in hand, the race is on to create a channel and lower the banks of the river to allow those high river flows to flood the newest BEMP site. The Crawford site, featured in our last newsletter and located about one mile south of the old Willie Chavez State Park in Belen, was set up as part of a collaboration between BEMP, the New Mexico Natural Heritage Program, Hawks Aloft Inc., the New Mexico Interstate Stream Commission and the Middle Rio Grande Conservancy District; with monitoring funding from USDA Forest Service. This collaboration was formed to assess the impacts of altering the landscape in order to restore and revitalize a post-burn area.



Dr. Eichhorst's 5 year old daughter Kiera sits on an airboat and watches the marsh buggy at work!

When using the natural process of overbank flooding during the high May runoff, natural regeneration of vegetation should result in a diverse mosaic of predominantly native trees, shrubs, grasses and forbs. In order to create a backwater area useful to migratory birds, endangered silvery minnows and other wetland critters, the river bank is being lowering and terraces are being created. This means that the site and surrounding area will be lowered by **four feet**, allowing parts of the bosque to flood at river flows as low as 1500 cubic feet per second (cfs). At 2000 cfs, the majority of the Crawford site will be a still, backwater area. As river flow increases, the backwater will extend to cover higher terraces. At 3500 cfs, the river flow will be high enough to enter the newly created channel, which will start to the north at the Belen site, and continue along through the bosque for a mile before flooding the Crawford site. This will not be the still water of a backwater area, but rather, the moving flows of overbank flooding, coming through the channel, over the site and returning to the river over the lowered banks.

Right now, the Crawford site is undergoing a transformation more massive than the fire which burned through it in February of 2007. Bulldozers clear the ground and knock down dead standing cottonwoods. Dirt and debris are piled higher than the bulldozers, and yet the BEMP wells are carefully avoided. Even more impressive than this sight, are the two "marsh buggies" which are on the banks, clearing and creating the lowest terrace. The base of a marsh buggy is comprised of two six-foot tall, 30-foot long pontoons with tank-like tread. On top of this is a shovel or excavator with a 60-foot boom. "Marsh buggy" seems an inappropriate name until you learn that the large, six-foot tall metal pontoons are hollow, allowing this machine to **float in water**. Yes, indeed, these mechanical beasts are awesome. And surveying all this from the river are two airboats zipping by so loudly that you have to wear ear protection when you ride them. This is an impressive undertaking that will hopefully result in changing 100 acres from exotic-dominated post-burn bosque to a self-sustaining, diverse, native-dominated bosque.

Photo & Article by Dr. Kim Eichhorst



SMNHC's Wild Sandias! Short Course, April 18



When: Saturday, April 18th

Time: 9:30am – 3:00 pm

Where: Sandia Mountain Natural History Center in Cedar Crest

Who: all teachers and pre-teachers (also open to non-teachers)

**** many activities will be aimed at a 5th grade audience**

What: Experience the Sandia Mountains and discover ways to integrate the multi-dimensional experience of nature into your teaching! Hike and learn hands-on activities and fascinating facts about local plants and animals to engage your students and demonstrate ecology principles. Get tips on using the outdoors, and even your schoolyard, as a teaching tool! Free ecology curricula CDs available to participants.

Materials: participants will receive SMNHC's Ecology Activity Guide Curriculum



Please register by Tuesday, April 14th.

All workshops have a \$10 materials fee.

To register, or for more information contact Susie Davis at: susan.davis@state.nm.us, 505.281.5259 or visit our website, www.nmnaturalhistory.org/smnhc.

wicked cool website worth checking out: www.climatecounts.org



Feeling a little taken aback by all the news on climate change and global warming? Regardless of your position, you can start making smart consumer decisions based on companies that are either **STUCK**, **STARTING** or **STRIDING** in the global fight against climate change.

A quick visit to ClimateCounts.org and within 20 seconds you can print out your own handy pocket guide of what business are working to make our world a happier place. **HOW IT WORKS:** Climate Counts rates companies on a scale of 0 to 100 and then ranks them against their main competitors. Now **YOUR** money can support those companies that **MAKE THE EFFORT**.

Climate Counts at a glance...

"You... have the power to make choices and raise your voices to motivate business to take action to fight climate change, and that's what Climate Counts is all about."

Companies are rated, based on the following criteria:

- **MEASURED** their climate footprint
- **REDUCED** their climate impact
- **SUPPORTED** (or blocked) progressive climate policy initiatives
- Made their climate protection efforts **PUBLIC** and **TRANSPARENT**

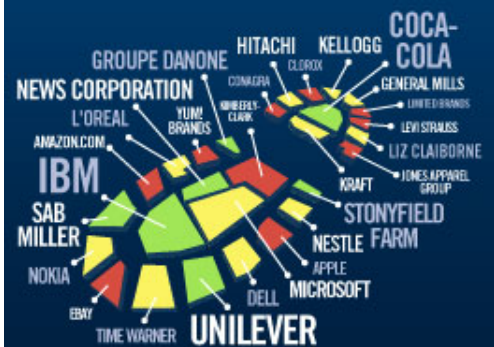
How you spend your money changes the world

Business has the power to change the world - and you have the power to change business. In tackling the growing climate crisis, is your favorite company **STUCK**, **STARTING**, or **STRIDING**?



Coming together in the fight against climate change!

YOUR CHOICE. YOUR VOICE.
OUR COMPANY SCORES HELP YOU VOTE WITH YOUR DOLLARS.



Image, quote & rating criteria were taken from: www.climatecounts.org on 2/25/2009.

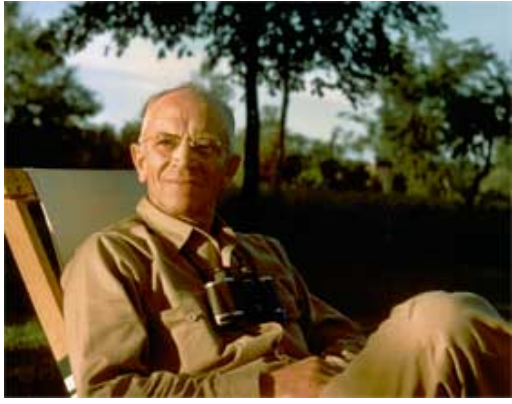
This 2008-2009 School Year

2744

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

BEMPin' it Up!

Living the Leopold Legacy



Picture of Aldo Leopold taken from www.aldoleopold.org.

(U.S. Fish & Wildlife Service middle Rio Grande Coordinator), Dan Shilling (author and professor at Arizona State) and Leopold's daughter Estella Leopold (professor of biology emerita, University of Washington) the conference shared community viewpoints and historic stories of the Native Americans, Hispanics and Caucasians of our green chile loving lands.

To continue the celebration locally, the City of Albuquerque and the Middle Rio Grande Conservancy District have established the **Aldo Leopold Forest** at the northern edge of the existing Leopold trail at the Rio Grande Valley State Park. Roots & Shoots and the Albuquerque Wildlife Federation also took part in the event by planting one hundred trees in the newly dedicated forest! There are also benches with Leopold quotes and viewing areas soon to be established in the forest. So live a little like Leopold... get outside, enjoy the wilderness and it's delights, celebrate that we still have a lot of wild places left here in our beautiful state!

Leopold Forest Partners



roots&shoots



For more information about upcoming LEOPOLD CELEBRATION events, check out the website at: www.leopoldcelebration.org.



Photo by Melanie Keithley

The Biopark BEMP site is located just west of the ponds off Tingley Drive SW. It spans the bosque on either side of the service road between the railroad tracks and wetlands.

WELCOME to the Biopark Albuquerque Institute of Math & Science (AIMS)

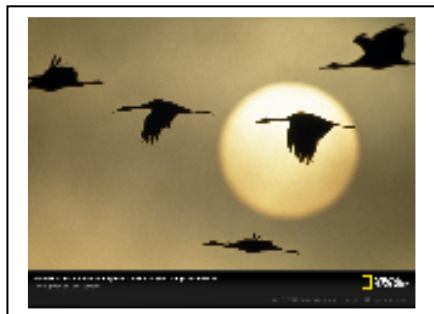


Under the guiding hand of AP Environmental Science teacher Beverly Miller, AIMS students have joined forces with Washington Middle School to assist in the monthly monitoring our Biopark BEMP site. The site, located just west of the southern-most City of Albuquerque Tingley Beach fishing pond, is actively managed to reduce exotic/invasive vegetation and overlaps the nearby pond and associated wetlands. Beverly, whom we met in our UNM Bosque Intern class (UNM – BIO 408/508L), started incorporating her students into our program soon after taking the class and they now visit the beautiful bosque each month. Well done Beverly... we're very excited you're now part of our monthly collections – enjoy your time out of the classroom and in the field! ☺

NOTES...

From the field!

Just like you've noticed these interesting Spring temperatures, so have the beasts of the bosque. At the end of February, thousands of flocking Sandhill Cranes were spotted migrating back along the Rio Grande to their northern habitat. Early season



insects like ants and butterflies have also been spotted emerging from their winter homes. Keep your eyes open as the signs of spring return to the valley.

*Photo by: Joel Sartore
National Geographic
Society*

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
Duran 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	

New Mexico Watershed Watch / BEMP Partners:

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



IMPORTANT DATES

March 17th – BEMP monthly monitoring
 March 23–27th – APS Spring Break
 April 21st – BEMP monthly monitoring
 April 30th – BEMP/Watershed Watch Congress
 May 4th–8th – Pitfall Trapping
 May 9th – International Migratory Bird Day
 May 19th – BEMP monthly monitoring
 June 16th – BEMP monthly monitoring
 June 22–26th – Pitfall Trapping → 
 July 21st – BEMP monthly monitoring

Not like this...

SAVE the DATE



BEMP Student Congress ~ a celebration of outside activity ~

WHO: grades 7-12

WHEN: Thursday, April 30th

In conjunction with
Watershed Watch!

WHERE: Rancho de los Golondrinas

WHO: grades K-6

WHEN: Friday, May 1st

2009

WHERE: Bosque School campus (Albuquerque)

Two events designed to bring students, agencies and researchers together to share their experiences in our outdoor environments.

CONTACT: BEMP Education Coordinator Kimi Scheerer for more info: 505.898.6388 ext. 128!

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 ♦ 7 Bar Foundation