

Asombro Insights

Science education for eager minds

A Quarterly Newsletter

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Fresh Air and Fun Events at the Nature Park

Are you ready to spend more time outside in 2012 exploring and enjoying the natural beauty of the desert? If so, we want to see YOU at the Chihuahuan Desert Nature Park.

“We love to keep it interesting with new events every year,” said Site Coordinator Paul Harper. We have scheduled a line-up of events that will appeal to a wide variety of people.

A few favorites will be back, including the Butterfly Flutterby on August 18. Now in its 10th year, the event will feature new activity stations to delight butterfly enthusiasts.

Kids of all ages will be the focus for the Kids’ Passport to the Desert on March 20 and the Story Time and Costume Party on October 27. Both events will focus on desert education in a fun, hands-on way.

New events for 2012 include Nature Art in the Park on May 12. We are collaborating with talented artists from the Court Youth Center to allow visitors to experience the desert through a variety of art forms. Also new for 2012



Explore the beauty of the Chihuahuan Desert Nature Park on your own (Tuesday through Saturday, 7AM - 5 PM) or at one of our 2012 events. The view from the Nature Park amphitheater is a staff favorite.

will be a dinner under the stars in September and a luminaria display in December.

Of course, the Chihuahuan Desert Nature Park is open for visits on other days of the year as well. Visit Tuesday through Saturday, 7:00 AM until 5:00 PM, and enjoy the Desert Discovery Trail, Desert Experience Mini-Trail, or Arroyo Trail. Picnic at the ramadas and enjoy the magnificent views from the 150-seat amphitheater.

For directions to the Nature Park or more information on upcoming events, please visit www.asombro.org. We hope to see you at the Park this year!

Save the Date

March 20 Kids’ Passport to the Desert

April 21 Sunrise Coffee

May 12 Nature Art in the Park

June 9 Geocaching Day

July 21 Nighttime Scorpion “Hunt”

Aug. 18 Butterfly Flutterby

Sept. 15 Dinner Under the Stars

Oct. 27 Story Time and Costume Party

Dec. 22 Luminarias in the Desert

Education Programs

Asombro staff broke yet another record in 2011 by delivering hands-on science programs for 14,357 students, 629 teachers, and 1,351 other adults. Many thanks to our generous donors and volunteers for making this happen! Here are the programs from the 4th quarter of 2011.

3-Oct	Tombaugh Elem. - sight	14-Nov	Mac Arthur Elem. - animal adaptations
7-Oct	Ecological Society of America SEEDS - K12 science education	14-Nov	J Paul Taylor Academy - microclimates
10-Oct	Mac Arthur Elem. - plants	14-Nov	Tombaugh Elem. - snakes
10-Oct	Tombaugh Elem. - plants	15-Nov	Central Elem. - animal adaptations
11-Oct	Mesa MS - vegetation measurements	16-Nov	Monte Vista Elem. - water infiltration
12-Oct	El Paso TechH20 - water festival	16-Nov	Hermosa Heights Elem. - arthropod identification
12-Oct	Mesa MS - vegetation measurements	17-Nov	Mesa MS - soil and water infiltration
12-Oct	Desert Hills Elem. - Fossil Day	17-Nov	Mesilla Park - animal adaptations
13-Oct	Mesilla Elem. - plants	18-Nov	Mesilla Park - habitat stats
14-Oct	Sierra MS - field trip	18-Nov	Central Elem. - field trip
15-Oct	Autumn Nature Stroll at the Nature Park	21-Nov	Monte Vista Elem. - desert plants
17-Oct	Monte Vista Elem. - ABC scavenger hunt	21-Nov	Lynn MS - rock and mineral identification
17-Oct	Tombaugh Elem. - animal adaptations	22-Nov	Lynn MS - rock and mineral identification
18-Oct	Central Elem. - plants	28-Nov	J Paul Taylor Academy - intro to photosynthesis
19-Oct	Las Cruces Catholic School - plants	29-Nov	Sunrise Elem. - scientific process & natural selection
20-Oct	Mesilla Park Elem. - plants	30-Nov	Sunrise Elem. - scientific process & natural selection
24-Oct	Monte Vista Elem. - classification	1-Dec	Mesilla Elem. - arthropod identification
24-Oct	Tombaugh Elem. - animal adaptations	2-Dec	Alameda Elem. - desert plants
24-Oct	J Paul Taylor Academy - scientific process	5-Dec	Mac Arthur Elem. - arthropod identification
25-Oct	Monte Vista Elem. - hunt / poetry flag	5-Dec	Monte Vista Elem. - See It Little/See it Big
25-Oct	East Picacho Elem. - animal adaptations	7-Dec	Sunrise Elem. (Gadsden) - classification
26-Oct	Las Cruces Catholic School - biodiversity	7-Dec	Mesa MS - soil compaction
27-Oct	Monte Vista Elem. - I'm A Scientist, Too	8-Dec	Mesilla Park Elem. - arthropod identification
31-Oct	Tombaugh Elem. - evaporation	8-Dec	Monte Vista Elem. - desert plants
2-Nov	Las Cruces Catholic School - plants	9-Dec	Central Elem. - arthropod identification
2-Nov	Las Cruces Catholic School - animal adaptations	9-Dec	East Picacho Elem. - weather
2-Nov	Las Cruces Catholic School - biomes	12-Dec	Monte Vista Elem. - arthropod identification
7-Nov	Tombaugh Elem. - arthropods	13-Dec	Mesa MS - soil and water infiltration
8-Nov	Mesa MS - soil and H2O infiltration	13-Dec	Monte Vista Elem. - biomes
9-Nov	Las Cruces Catholic School - animal adaptations	14-Dec	Las Cruces Catholic School - arthropod id
9-Nov	J Paul Taylor Academy - scientific process part	15-Dec	Mesilla Park Elem. - animal adaptations
10-Nov	Mesilla Elem. - animal adaptations	21-Dec	Winter Wonder Walk at the Nature Park

Our Favorite Moments of 2011

2011 was a great year at the Asombro Institute for Science Education. We delivered our education programs to the most K-12 students EVER (14,357!) and maintained a balanced budget. But it was the many, small moments that made us smile, kept us on our toes, and took our breath away. Here are a few of those moments.



Asombro staff: (left to right) Rink Somerday, Stephanie Bestelmeyer, Paul Harper.

Stephanie Bestelmeyer (Executive Director)

I mentioned at the annual meeting that we needed assistance with bookkeeping and payroll. By the end of the week, we had a volunteer offer to help with bookkeeping and a donor who paid for us to have outside payroll services. Just one more example of our incredible volunteers and donors. Amazing!

Rink Somerday (Program Coordinator)

When I went into a 5th grade class for a science lesson, one of the students told me about what I taught her in 3rd grade. This just proves that our programs make an impact now and long into the future.

Paul Harper (Site Coordinator) Collaborating with talented artists from the Court Youth Center to host the Gen M Summer Program for middle school youth was great. Science and art work well together.



Ecological studies at the Chihuahuan Desert Nature Park allow students to learn about desert science by participating in it. Hands-on science education continues to be the foundation of the organization.

Restoring Desert Grasslands

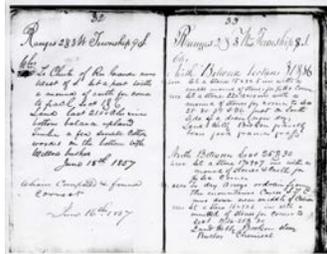
It is hard to believe when you look at it now, but much of the Chihuahuan Desert Nature Park and surrounding desert used to be an expansive desert grassland with few shrubs.

Through a combination of heavy grazing, shrub seed dispersal, reduced fire frequency, and climate change, creosotebush (*Larrea tridentata*), honey mesquite (*Prosopis glandulosa*), and other shrubs spread throughout the area, leaving the shrub-dominated system we see today. The causes and consequences of this “desertification” process are the focus of considerable research at the nearby USDA-ARS Jornada Experimental Range and the Jornada Long-Term Ecological Research Program (for which the Asombro Institute coordinates K-12 science education initiatives).

In early 2011, we became interested in creating a large demonstration area that would teach people of all ages about desertification and the challenges of restoring native grasses to areas now dominated by shrubs. We were fortunate to receive funding for this project from the U.S. Department of Fish and Wildlife’s Partners for Fish & Wildlife Program.

The demonstration area is located northwest of the parking area in the Chihuahuan Desert Nature Park. There are three, 3-acre plots. One plot serves as a control. In the second plot, we are physically removing shrubs with hand tools. In the third plot, we are burning shrubs using drip torches.

Pre-treatment measurements were taken of shrub density, shrub size, ground cover, and soil properties. Once the



This 1857 general land office survey refers to “good grama grass” cover in an area that is now dominated by creosotebush (*Larrea tridentata*).

treatments are completed, middle and high school students will collect data, comparing to pre-treatment values and between the treatments. This is one additional example of students learning science by participating in authentic studies at the Chihuahuan Desert Nature Park.

Once again, we are extremely grateful to many individuals and groups for assistance. Angel Montoya from the USFWS assisted with project development and volunteered some of his own time to remove shrubs. Volunteers from the Las Alturas Volunteer Fire Station spent two days burning shrubs using equipment loaned from the Bureau of Land Management. Jornada Experimental Range scientists assisted with project design, shrub removal, and student project design.



Top: Volunteer Las Alturas firefighter John Anderson uses a drip torch to burn a creosotebush. Photo by Brad F. Cooper. **Left:** Grasses and forbs under shrubs burned, but few full shrubs burned completely. Photo by Brad F. Cooper. **Right:** Justin Van Zee uses a Pulaski axe to remove a shrub.



Asombro’s “Dimes for the Desert” campaign supports quality science education for thousands of children and operation of the 935-acre Chihuahuan Desert Nature Park.

Dimes for the Desert



We are collecting ONE MILLION DIMES in 2012, and we need your help! Dimes for the Desert is the Asombro Institute for Science Education’s 2012 campaign. We set a lofty goal because our cause is lofty - we want to deliver hands-on science to 14,000 children and maintain a beautiful Chihuahuan Desert Nature Park for visitors of all ages to enjoy.

Just 30 dimes brings a deserving student on a field trip to experience the wonder of science and the desert. Just 500 dimes

brings hands-on science to a whole classroom of students. Here’s what you can do to help:

- Make a donation using the form in this newsletter.
- Add your change (or bills) to the collection jug at every Asombro event.
- Ask local businesses you frequent to serve as collection points for Dimes for the Desert.
- Tell everyone you know about our campaign. Every little bit helps.

Updates are posted on Asombro’s Facebook page. Thanks once again for your support!



Asombro Institute
FOR SCIENCE EDUCATION

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Many Thanks

We are grateful to the generous people who have donated since the last newsletter.

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Memorial for
Lois L Rottenborg & Bruce Van Zee
Jolaine Mills



Top: Annual Asombro meeting on January 16. Photo by Mike Groves.

Bottom: Firefighters and Asombro personnel prepare for restoration project. Photo by Brad F. Cooper.