

Asombro Insights

Science education for eager minds

A Quarterly Newsletter

Volume 22, Issue 2 (April - June 2013)

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Many Reasons to Volunteer

By Rink Somerday and Anna Keener

We are humbled by and proud of all Asombro volunteers. With their help, we are able to reach more than 17,000 kindergarten through 12th grade students, maintain a 935-acre park site, and bring desert science to southern New Mexico and far west Texas.

Many people volunteer to give back, but we hope our volunteers get more in return than just feeling good. Many of our volunteers who help in the classroom and on field trips are retired teachers. They use their career-long experience engaging students to help with our science education programs. By volunteering, they experience the joy of being with students and teaching without doing it as a full-time job.

Asombro volunteers also learn background knowledge they need to fulfill their duties. For example, some Butterfly Flutterby volunteers learn information about insects and have become experts over the years. Our field trip volunteers get to

learn about topics as diverse as desert plant adaptations, fossils, and radiotelemetry.

For many people moving to Las Cruces, volunteering helps them learn more about their new community and meet other generous volunteers. At our volunteer gatherings, we may be folding newsletters or prepping for a class program. This sociable work time gives

everyone the opportunity to give back while enjoying each other's company.

Asombro's Board members are all volunteers too, each bringing their talents to the organization. In return, they get the satisfaction of knowing that they are contributing to increasing science literacy and knowledge about the desert for thousands of people.

Each volunteer contributes his/her own talents to make Asombro strong. To those who already contribute, we thank you! If you are interested in joining this amazing group of

"I volunteer at the Asombro Institute because it embodies what science education should be about for children and adults alike - hands-on, real life experiences using scientific methods."

-Pat Mihok



Donna Yargosz and David Hutchinson annually contribute more than 150 hours each to assist with Asombro education programs.

Photo by Brad Cooper.

volunteers, please contact us:

575-524-3334 or info@asombro.org

Developing Asombro's Education Programs

"How do you come up with these amazing programs?" This is a frequent question we hear from teachers. Yet the answer isn't simple. The ideas for programs come from many different sources: teacher requests, discussions with scientists engaged in exciting local research, and even staff members' seemingly crazy ideas that we think just might work!

But getting the idea for a program is just the first step in creating a full Asombro program. The next phase involves lots of testing. Staff members work together and get advice from scientists working on the topic. We then hit the aisles of local stores looking for materials that might work. Then it's back to our office for lots of experimenting, trying to find the combination of supplies and data collection procedures that will make the science come

alive for students. Some ideas are thrown away at this stage - with a combined 50+ years of teaching experience, Asombro staff have a good sense of how students think.

If the ideas blossom into a feasible activity after weeks of testing and tweaking at the office, the next step is pilot testing with students. We ask students lots of questions to figure out if the lessons are having the intended consequences of increasing student knowledge and enthusiasm for science. This process can go on for days, weeks, or even months.

At the end of this lengthy process, we have innovative programs that increase student interest in science. Seeing students light up with new knowledge and enthusiasm makes all the hard work worth it!

THE WAY TO GET GOOD IDEAS IS TO GET LOTS OF IDEAS AND THROW THE BAD ONES AWAY."
- LINUS PAULING

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cause and then visit your favorite shopping sites. More than 1,200 stores are part of the network, including Asombro staff favorites like Orbitz, Road Runner Sports, REI, and the Apple Store.

For more information, please contact the Asombro office (575-524-3334 or information@asombro.org).

Education Programs

Thanks to your support, Asombro staff provided 278 hours of science programming for 7,007 students so far in 2013!

9-Jan	LC Catholic School - weather	31-Jan	Las Montañas HS - Desert Data Jam	27-Feb	Sierra MS - plant biodiversity
9-Jan	LC Catholic School - see it little/big	1-Feb	J Paul Taylor Academy - geology	28-Feb	Sierra MS - field trip
10-Jan	Las Montañas HS - Desert Data Jam	6-Feb	White Sands MS - biodiversity	28-Feb	J Paul Taylor Academy - Earth Squad
10-Jan	J Paul Taylor Academy - vertebrates	6-Feb	LC Catholic School - solar system	28-Feb	Desert Hills Elem - science night
10-Jan	LC Catholic School - vertebrates	7-Feb	J Paul Taylor Acad - plant biodiversity	1-Mar	Sunrise Elem - project based learning
14-Jan	Doña Ana Elem - weather	7-Feb	LC Catholic School - plant biodiver.	1-Mar	J Paul Taylor Academy - rock cycle
14-Jan	Alma d'Arte HS - Desert Data Jam	7-Feb	J Paul Taylor Academy - senses	4-Mar	J Paul Taylor Academy - arthropods
15-Jan	Mayfield HS - Desert Data Jam	8-Feb	Picacho MS - biodiversity sampling	4-Mar	LC Catholic School - arthropods
15-Jan	Vista MS - vertebrates	9-Feb	Take It Outside, NM workshop	5-Mar	Vista MS - arthropod biodiversity
15-Jan	Tombaugh Elem - weather	11-Feb	Doña Ana Elem - solar system	5-Mar	Central Elem - earth movers
16-Jan	Sonoma Elem - science fair projects	12-Feb	Vista MS - plant biodiv	6-Mar	Sierra MS - arthropod biodiversity
16-Jan	Sierra MS - vertebrates	12-Feb	Tombaugh Elem - solar system	6-Mar	LC Catholic Schools - earth movers
17-Jan	Lynn MS - vertebrates	13-Feb	LC Catholic - soil organic matter	6-Mar	LC Catholic Schools - classify
17-Jan	Picacho MS - ecosystems	13-Feb	Sierra MS - plant biodiversity	6-Mar	LC Catholic Schools - plant a seed
17-Jan	White Sands MS - ecosystems	14-Feb	LC Catholic - soil organic matter	7-Mar	J Paul Taylor Academy - Earth Squad
17-Jan	J Paul Taylor Academy - plants	14-Feb	J Paul Taylor Academy - Earth Squad	7-Mar	Sierra MS - vegetation measurements
18-Jan	Sonoma Elem - arthropod id	14-Feb	Lynn MS - plant biodiversity	7-Mar	Lynn MS - arthropod biodiversity
18-Jan	Mesa MS - vertebrates	14-Feb	Nature walk at the Nature Park	7-Mar	J Paul Taylor Academy - Earth Squad
21-Jan	Annual membership meeting	14-Feb	J Paul Taylor Acad - states of matter	11-Mar	Doña Ana Elem - earth movers
22-Jan	Vista MS - vertebrates	15-Feb	Mesa MS - plant biodiversity	12-Mar	Tombaugh Elem - earth movers
22-Jan	Central Elem - weather	19-Feb	Booker T. Washington - solar system	12-Mar	Vista MS - arthropod biodiversity
23-Jan	Sierra MS - vertebrates	19-Feb	Oñate HS - Desert Data Jam	13-Mar	Sierra MS - arthropod biodiversity
24-Jan	Lynn MS - vertebrates	19-Feb	Vista MS - plant biodiversity	14-Mar	Camino Real MS - field trip
24-Jan	J Paul Taylor Acad - see it little/big	20-Feb	Sierra MS - plant biodiversity	14-Mar	J Paul Taylor Academy - Earth Squad
25-Jan	Picacho MS - field trip	20-Feb	Mayfield HS - Desert Data Jam	14-Mar	Lynn MS - arthropod biodiversity
26-Jan	Teacher workshop - Stepping Out for Science Inquiry Project	21-Feb	J Paul Taylor Academy - Earth Squad	15-Mar	Mesa MS - arthropod biodiversity
29-Jan	Booker T. Washington Elem - weather	21-Feb	Lynn MS - plant biodiversity	19-Mar	Las Montañas HS - Desert Data Jam
29-Jan	Las Montañas HS - Desert Data Jam	21-Feb	Arrowhead Park HS - Data Jam	19-Mar	Sonoma Elem - weather
30-Jan	Sierra MS - vertebrates	21-Feb	Las Montañas HS - Desert Data Jam	20-Mar	Alameda Elem - arthropod identification
30-Jan	Oñate HS - Desert Data Jam	21-Feb	J Paul Taylor Academy - animal color	21-Mar	J Paul Taylor Academy - Earth Squad
31-Jan	Picacho MS - field trip	22-Feb	Central Elem - solar system	22-Mar	Sonoma Elem - field trip
31-Jan	White Sands MS - field trip	25-Feb	Entomological Society - Insect Expo	23-Mar	Egg Trek at the Chihuahuan Desert Nature Park
31-Jan	J Paul Taylor Academy - biomes	26-Feb	Monte Vista Elem - biomes		
		26-Feb	Camino Real MS - carbon cycle		

Shrub Removal Experiment - 1 year later

In early 2012, Asombro launched an ambitious research and education project at the Chihuahuan Desert Nature Park. Our “shrub removal experiment” investigates the effects of removing shrubs from an area that was formerly grassland. The study includes 4.5-acre plots: one plot where shrubs were physically removed, one plot on which shrubs were burned, and one control plot. The project is modeled after large-scale shrub removal efforts by the Bureau of Land Management and the US Fish and Wildlife Service. Find more details about the project in the January 2012 issue of *Asombro Insights*.

It has now been more than a year since the experiment began, and in many ways, the work is just beginning. Asombro staff and volunteers



Students get last-minute instructions before heading to the research plots to collect data. Photo by Brad Cooper.

collected pre-treatment data in January and post-treatment data in October 2012.

On April 15, 7th graders from Sierra Middle School in Las Cruces learned about the project from Asombro staff, Margie Guzman from the BLM, Angel Montoya from the USFWS, and John Coffman, a scientist working on biodiversity studies in shrub removal plots throughout southern New Mexico. Students collected data on plant cover and composition. They learned common vegetation monitoring methods like belt transect methods and compared their data with pre-treatment data.

Middle and high school teachers will collect an additional set of research data this summer at an Asombro workshop focused on biodiversity.

Events at the Nature Park

It's been a busy year already at the Chihuahuan Desert Nature Park. In addition to field trips for school groups, Asombro has also hosted:

- January 21 - Annual membership meeting
- February 14 - Fall in Love with the Desert Nature Walk
- March 2 - Trail work day
- March 23 - Egg Trek Family Education Event

We have a lot more planned for the year, including:

- April 27 - **Take it Outside, New Mexico teacher workshop**
- May 11 - **Desert Walk and Movie Night.** Take a guided stroll through the Nature Park beginning at 7 PM and then relax under the stars for a showing of Planet Earth: Deserts beginning at 8 PM.
- July 12 - **Nightlife of the Desert** (registration required)
- August 17 - **Butterfly Flutterby** from 9 AM - noon
- September 14 - **Geocache the Desert**
- November 9 - **Desert Dash 5K, 10K, and Children's 1K trail race.** Sponsorships and registration available now! www.asombro.org/dash
- December 14 - **Luminarias Light Up the Desert**



Egg Trek participants like Wesley Amato (above) learned about egg-laying animals as they searched for a few “nests” made just for the event.



Trail work day participants from NMSU's Plant and Environmental Science Department.



Asombro Institute
FOR SCIENCE EDUCATION

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