

Volunteer Association Newsletter



NMMNSH

OCTOBER - NOVEMBER, 2013

VOLUNTEER ASSOCIATION OFFICERS FOR THE NEXT YEAR

After hard-fought election campaigns, it gives us great pleasure to finally announce the officers who will light our way for the coming year!



Barry Granoff
PRESIDENT

Pat Robinson
PRESIDENT-ELECT

David Jackson
SECRETARY

Dwight Harris
TREASURER

THE STATE OF THE VOLUNTEERS' ASSOCIATION

Dwight Jennison, Immediate-Past-President

It has been extremely rewarding for me to serve as your president this past year, and I am very thankful that I had time to meet a great many of you and get to know you on a first name basis. To the great benefit of the Museum, we managed to staff the *Titanic* exhibit. We now have over 400 volunteers and our Association finances permitted us to contribute to the completion of the Hall of the Stars (formerly the Constellation Hall), which is now clearly labeled as "A Project of the NMMNH&S Volunteers' Association". We have/had volunteers on several planning committees, and the communication and respect

between the staff and ourselves is very good. Finally, our Association has been praised by both the Board of the Foundation and the Board of Trustees of the Museum for our devotion, time, and talents. All recognize the central importance of us volunteers to the Museum, not the least of which is the dedication of our time, which amounts to about twenty full-time-equivalents.



My long-standing goal has been to make available to our visitors and our staff the full talent of our people, and for our people to feel that their talents are appreciated and recognized.

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To this end, several of us have assumed larger roles regarding educating the public with the full cooperation of the staff. I hope this trend continues.

I especially want to thank our Continuing Education Committee for maintaining a top-notch program of presentations for our membership. One goal for the future is to increase participation in ContEd events, and the recent trend here has been positive. Please tell your colleagues how interesting these presentations are.

The "lifelong learning" concept is present in the Museum Strategic Plan, which is available on the website. It has mental and physical health benefits for those of us getting a bit more grey. There has never been a time when more, new exciting discoveries, relevant to museum content, appear in sources such as *ScienceDaily*, *Live Science*, or other science magazines. Communicating these discoveries to our membership and to our public should be a high priority, and I encourage anyone who sees something interesting, or who has any questions concerning a new discovery, to contact someone on the Continuing Education Committee, both to spread the word and to help interpret the importance of the new discovery.

Finally, I wish to thank our Director, Charlie Walter, for the excellent level of communication we have had this year, and for his clear appreciation of our membership. Our Museum is now on a strong upward trajectory, and we can all be proud of our part in enabling this to happen.



BOOK REVIEWS ABOUT OCEANS

Ballard, Robert D. ***The Eternal Darkness: A Personal History of Deep-Sea Exploration.*** Princeton, NJ: Princeton University Press, 2000. (GC65 B275 2000)

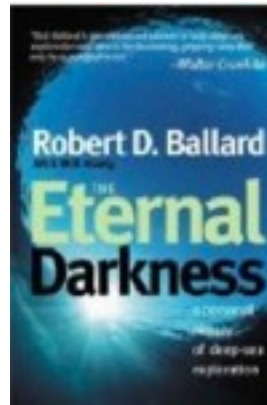
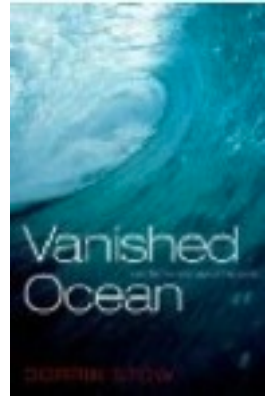
Felt, Hali. ***Soundings: The Story of the Remarkable Woman Who Mapped the Ocean Floor.*** New York: Henry Holt & Co., 2012. (GA407 T43 F45 2012)

Stow, Dorrik. ***Vanished Ocean: How Tethys Reshaped the World.*** Oxford: Oxford University Press, 2010. (QE501.4 P3 S76 2010)

With the *Titanic* exhibit, this is a good time to learn more about the oceans. These three new books look at various aspects. The books by

Ballard and Felt focus on the ocean depths, while Stow's book looks at an ancient ocean.

In ***Vanished Ocean: How Tethys Reshaped the World***, Stow covers the long history of Tethys from Pangea, around 260 million years ago, until it vanished around 5.3 million years ago. He covers how the rocks tell the story of this long history both of the sea itself and the land masses it touched. At the end, he projects what the continents might look like 50 million years in the future.

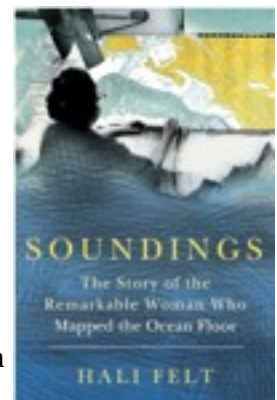


Ballard gives a history of deep sea exploration from the bathysphere of William Beebe and Otis Barton in the 1930s to the latest robotic explorations. From bathyscaphs to deep sea submersibles, he presents a thrilling account of how these innovations allow scientists to explore the ocean depths. As is mentioned by many, we

know more about the moon than we do about the oceans, which represent a large part of the Earth, over 70% of the surface, and even more, if you calculate the volumes. Ballard is well qualified to write on this topic since he has been involved in these explorations since the 1960s as is reflected in the book's subtitle: ***A Personal History of Deep-Sea Exploration.***

This book includes information about the finding of the *Titanic*. If you want to explore more on this topic, the extensive "Further Reading" section chronologically lists other works of interest.

Before people went into the deepest parts of the oceans, soundings were used to create maps of what the bottom looked like. Marie Tharp, who worked at the Lamont Geological Observatory (now the Lamont-Doherty Earth Observatory), at Columbia University, took the raw data from the scientific surveys and created a map in the



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early 1950s that showed the rift valley in the Atlantic Mid-ocean Ridge. This was an exciting time in geology with the rise of the theories of continental drift and plate tectonics. One problem had always been an explanation of how the continents moved. Finding the mid-ocean spreading and later the subduction zones provided the answers. Along with scientist Bruce Heezen, Marie would complete maps of the bottoms of all the oceans, culminating in the 1977 World Ocean Floor Panorama. Marie was an artist and a technician who many feel has not received the credit due for her work in this area. Perhaps *Soundings: The Story of the Remarkable Woman Who Mapped the Ocean Floor* can provide a remedy for this situation.

NEW BOOKS

In addition to the three books reviewed above, here is a list of other new books now in the Library. Since Titanic items are on the top shelf, these new books have been shelved in the regular collection, but are marked with a green book mark which has the word **NEW** on it.

By broad subject:

EVOLUTION

Evolution's witness

Ivan R. Schwab
(QP475 S374 2011)

Why evolution is true

Jerry A. Coyne
(QH366.2 C74 2009)

GEOLOGY

Geological evolution of the Colorado Plateau of eastern Utah and western Colorado

Robert Fillmore
(QE169 F545 2011)

The universe within

Neil Shubin
(QE28 S526 2013)

PALEONTOLOGY

Fossil invertebrates

Paul D. Taylor
(QE770 T34 2005)

Remarkable creatures

Tracy Chevalier
(PS3553 H4367 R46 2010)

The second Jurassic dinosaur rush

Paul D. Brinkman
(QE705 U6 B75 2010)

What bugged the dinosaurs?

George O. Poinar
(QE734 P65 2008)

WOMEN SCIENTISTS

Soundings by

Hali Felt
(GA407 T43 F45 2012)

Enjoy these new items and let me know if you have recommendations for other books.

Your Librarian, *Mina Jane Grothey*
mgrothey@unm.edu



THE LEARNING GARDEN: Outdoor Family Learning In A Parking Lot

Out in the east parking lot, just south of green Bioscience Collection building, the 600+ square foot garden is getting new attention. Since the middle of May, 2013, The Kiwanis Learning Garden, now 15 years old, has been cleaned up, planted by a team of families, and inspired with new grant from Kiwanis. About a dozen interested families have come together, bringing children aged 1 to 15, in the original spirit Kiwanis wanted for the garden – “to the Families of New Mexico – a garden for understanding and appreciating Nature.”



When you hear the words “Learning Garden,” what do you remember?

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Many folks who were around the Museum 15 years ago will remember Kiwanis Club of Albuquerque members creating a community park in the parking lot. How many Kiwanis members came for days of digging and fencing and helping Clarence Rodgers of Rodgers & Co. drill the well and set up the windmill! If you were around the Museum over ten years ago, you may remember when there were water lilies and fish living in the stock tank, the gate was locked if a tour wasn't scheduled, apple trees grew along the north side, and heirloom veggies grew in rows under the care of former Museum staff John Arnold and Marlene Tanner.



A few may remember the NMMNHS Volunteer clean-up effort in June, 2011, to spread mulch after garden plants had died in the February, 2011, freeze. The garden was then used as outdoor play space for Summer Camp half-day programs.

You may remember other things. There's a lot more history to it than I know or have room to tell.

Big changes happened to the Learning Garden this year. First, in May, a group of families started coming once a week and some Saturdays to plan

and plant the ground. Second, the Kiwanis Club decided to make another donation to the garden. Third, one of our Junior Docents is making helping the Learning Garden his Eagle Project. Fourth, electricity will again be connected to the well pump in the garden, a new pump house built, and a possible future connection of windmill to the pump implemented.

Garden showcases Reggio approach

Now, the effort in the Kiwanis Learning Garden is showcasing a distinct learning approach – the ***Reggio Emilia Approach*** – named after the town where it started in Italy. It is an educational approach that embraces shared learning in an enriching environment and encourages the responsibility and respect of children by having active roles in their communities. New Mexico Wonder of Learning Collaborative (which includes members of early childhood community in Albuquerque and around the state) is the group that is bringing the *Wonder of Learning* exhibit to New Mexico (and to our Museum) next June. This group suggested last winter that the garden be used as a community project to showcase the learning philosophy behind the exhibit. After consulting with Museum Director Charles Walter, Chief of Education Deb Novak and the Modern Natural History Committee, the Museum gave its blessing to the idea.

Invitations to the “after-school program” went out to Alice King Community School, Sawmill and Downtown Neighborhood Associations and to the Prehistoric Preschool program. The children and adults – the Team of Families - have many accomplishments: manure brought in and dead cactus taken out, planting beds inside the circle enriched, soaker hose system installed, planted, and mulched. Tree limbs were trimmed and tree wells were broadened, and an amazing crop of sunflowers both annual and perennial now thrive. Much to everyone's delight are the child-led creations: the Weed Garden and the Wind Socket. Behind all ground activity has been documentation of children's language each day. Lisa Edmonds and Cheryl Hsia have created a blog, reflecting on their scriptings and photographs of the children. Parents who have attended Prehistoric Preschool with their children, Edmonds and Hsia share knowledge about the Reggio approach gained from being a part of The Rosalie School in Albuquerque.

Kiwanis spurs future planning through new grant

Kiwanis Club of Albuquerque, with its mission “to improve the world one child at a time” had

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wanted to find a way to help the garden again for some time. Their current president, Dave Orner, supported the NM Wonder of Learning Collaborative's idea to have the garden be a place for children alongside their families to guide the process of planning the space. His decision to make his annual project the Learning Garden resulted in much planning ahead by families.

In addition to funding for shade structures over the picnic tables, the Club's new donation has funded purchase of the soaker hoses, perennial plants, the lumber for the planter boxes, an educator to organize the project, fruit trees to be planted this fall and interactive sculptures. Networking by Orner and other Kiwanis members has also resulted in Rodgers & Co. re-building the well house and hooking up the windmill to the pump.

Junior Docent Jett Emms to donate planter boxes as Eagle Scout project

Through his connection to the Chief of Education at the Museum, Junior Docent Jett Emms offered to have the Learning Garden be the target of his Eagle project. He will be organizing members of his Troop to build planter boxes for the garden this fall. The boxes, built out of 2x10 pressure-treated lumber, can double as cold frames in the winter.

Looking ahead

The Kiwanis Learning Garden continues to be a place for out-of-town schools' lunches, a place for families to re-group after a visit to the Natural History Museum or Explora. Thanks (huge thanks!) to Kiwanis, to the Team of Families and to the Museum, the garden will offer more learning opportunities (as well as more shade) to the community. If you would like more information, or to share history, gardening expertise, labor, or access to view the Learning Garden blog, please contact Cirrelda at 841-2882.

*Cirrelda Snider-Bryan
Early Childhood Educator*



***Prehistoric Preschool
Fall Sessions***

SEPTEMBER-OCTOBER

*Plants the Perfect
Providers*

NOVEMBER-DECEMBER

Paleontology 101

**OCTOBER AND NOVEMBER, 2013
MUSEUM ADULT AND FAMILY
EDUCATIONAL PROGRAMS**

Programs at a Glance...

OCTOBER

October 6 • *First Sunday*

October 10 • *Teachers:
Bosque Education Workshop*

October 25 • *Night at the Museum
Fright Night*

NOVEMBER

November 3 • *First Sunday*

November 7 - 9 • *Beginning of Prehistoric
Preschool Fall Session 2*

November 9 • *Adult Class
Jewelry and Minerals*

November 14 • *Lecture
Curiosity Rover*

November 16 • *Starry Nights
Venus*

November 19 • *Field Trip
Rio Puerco Volcanic Necks*

LECTURES

Roving Mars with Curiosity

Horton E. Newsom, Ph.D
**Institute of Meteoritics and Department of
Earth and Planetary Sciences, UNM**

Thursday, November 14, 2013

A new rover is roving on Mars. Curiosity (Mars Science Laboratory) is designed to assess Mars' past environments with an advanced suite of scientific instruments. It carries a radioisotope power system that will give the rover an even longer operational lifespan than its predecessor Opportunity (which is still roving). Curiosity landed in August of 2012; this is a perfect time to hear about its first year on Mars.

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Dr. Hort Newsom, a Research Professor at the University of New Mexico, has over 30 years of experience in planetary geology emphasizing the study of impact craters and surface processes on Mars. He is a Co-investigator and science team member on the ChemCam Laser Induced Breakdown Spectroscopy (LIBS) instrument on Curiosity. Dr. Newsom also works with K-12 teachers, middle school and high school students, and Native American colleges. He received his B.S. at the University of California Berkeley and Ph.D. at the University of Arizona.

Held at the New Mexico Museum of Natural History & Science
1801 Mountain Rd. NW, Albuquerque, NM 87104
(505) 841-2800

Visit: www.nmnaturalhistory.org

\$6 (\$5 members, \$4 students)

Purchase in advance online to guarantee your seats at www.NMnaturalhistory.org. (Online ticket fees may apply.) or purchase tickets at the Admissions desk prior to the event. Doors open at 6:15 pm.

Questions: August Wainwright
email: programs.NMMNHS@state.nm.us
call (505) 841-2861

STARRY NIGHTS

Viewing at the Observatory Planetarium Shows Special Activities

Venus: The Morning and Evening Star November 16 • 6:30 - 9:30 pm

\$8 (\$6 members & Seniors, \$4 children)

Purchase in advance online at www.NMnaturalhistory.org (Online ticket fees may apply.) or purchase at the Admissions Desk

Questions: August Wainwright
email: programs.NMMNHS@state.nm.us
call (505) 841-2861

NIGHT AT THE MUSEUM

Evening events for adults 18 years and older only - cash bar 21+

2nd Annual Fright Night

Nights at the Museum presents the **2nd Friday, October 25 • 6:30 pm - 10:30 pm**

Annual Fright Night--an evening designed for adults 18 years and older. Guided tours, live music, cash bar 21+, costume contest, planetarium shows, exhibits and more.

\$8.00 (\$7.00 students, \$4 members)

Pre-registration suggested. Buy your ticket online at www.NMnaturalhistory.org (Online ticket fees may apply.) or purchase your ticket at the Admissions Desk

Questions: August Wainwright

ADULT CLASS

email: programs.NMMNHS@state.nm.us
call (505) 841-286

ARTIST: Camille Argeanas
GEOLOGIST: Jayne Aubele

Creative Wire: Minerals and Jewelry

Saturday November 9 • 10:00-Noon

Learn a few fun things about New Mexico's minerals from a geologist's perspective and then create your own handcrafted wire jewelry that will showcase these gems of the earth. Create a pendant, earrings, or bracelet. This class is geared for adults and older children, ages 12 and above. No prior experience in art or jewelry making is required. The class fee includes all materials.

Camille Argeanas, a native New Mexican, is a nationally known wire wrapping artist and teacher who has virtually transformed the meaning of using wire to create unique and beautiful jewelry. She has taught regularly at the UNM's Division of Continuing Education for over twenty years.

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Jayne Aubele is a geologist who has mapped and researched the geology of New Mexico, as well as studying the Moon, Mars, and Venus for NASA. Over the years, she has taught adult classes in all aspects of geology.

\$35 (10% member discount)

Pre-registration required. For more information or to guarantee your place in this class, register online, go to www.NMnaturalhistory.org. (online ticket fees may apply)

FIELD TRIPS

Questions: August Wainwright
email: programs.NMMNHS@state.nm.us
call (505) 841-2861

Volcanoes of the Rio Puerco

Tuesday, November 19
8:00 am – 3:00 pm

Trip Leader: Larry Crumpler Ph.D.
Research Curator of Volcanology and Space Science, NMMNHS

The Rio Puerco valley, west of Albuquerque, is a beautiful and desolate area of sandstone mesas and volcanic necks. We will visit one of these natural “walk-thru” volcanoes, Cerro de Guadalupe (which was recently featured on the official New Mexico Centennial stamp), and explore what these “necks” tell us about the inside of volcanoes. This is an unusual opportunity to see a part of New Mexico that few people ever visit, with an expert volcanologist.

Bring your own lunch, sunscreen, water. Wear sturdy shoes and dress appropriately for the weather. Meet at the Museum at 8:00 am. One Museum van will provide transportation.

\$40 adult (\$35 members)

Adults only. Limited number of participant slots available.

Purchase in advance, Space is limited, go to www.NMnaturalhistory.org (online ticket fees may apply)

Questions: August Wainwright
email: programs.NMMNHS@state.nm.us
call (505) 841-2861

FIRST SUNDAYS

FREE Admission to the Museum for all New Mexico Residents

Sunday, October 6, November 3
9:00 am – 5:00 pm

On the first Sunday of every month, the New Mexico Museum of Natural History and Science is FREE to all New Mexico residents. (Bring NM ID or proof of residence.) Regular admission fees for DynaTheater and Planetarium shows and Titanic Exhibit.)

FIRST SUNDAY SPECIAL EVENTS

Guided Tour of the Museum Public Exhibits **Every First Sunday • 1:30 – 2:30 pm**

Take a free, fact-filled, fun, guided tour of Museum exhibits.

SPECIAL EVENT AT THE MUSEUM ON OCTOBER'S FIRST SUNDAY

Meet the Expert

Sunday, October 6 • 12 pm - 5 pm

Over 20 museum experts will be on site with an array of show and tell. Staff and specimens will come out from behind the scenes - engage one on one with museum curators, educators, exhibits staff and more!

EVENT IS FREE

Limited to 14 participants ages 13 and up
No registration required. Tours are first-come, first served.

No Registration Required.

Questions: August Wainwright
email: programs.NMMNHS@state.nm.us
call (505) 841-2861

MUSEUM TOURS

Museum Exhibit Tours **Every Monday • 1:30 – 2:30 pm**

Take a docent-led, fact-filled, fun, guided tour of the Museum exhibits.

Limited to 14 participants ages 13 and up. Meet in the Atrium at the stadium seating.

*Free (with Museum Admission)
No registration required. First-come, first served.*

*Questions: August Wainwright
email: programs.NMMNHS@state.nm.us
call (505) 841-2861*

TEACHER WORKSHOP

BOSQUE EDUCATION GUIDE WORKSHOP FOR TEACHERS

Thursday October 10 • 8:30 am – 4:30 pm

At the Rio Grande
Nature Center State Park

Join other educators in getting to know this amazing hands-on, Elementary-12th interdisciplinary curriculum about the Middle Rio Grande bosque ecosystem.

For more information, visit the Bosque Education Guide website:

<http://www.nmnaturalhistory.org/bosque-education-guide.html>

Pre-registration is required. To reserve a space call: 505-344-7240

Workshop is free. \$3 per vehicle day-use fee (exact change or check) for the RGNC. Curriculum and kit of materials included with full-day workshop.

*Rio Grande Nature Center State Park
2901 Candelaria NW, Albuquerque, NM 87107
(505) 344-7240*

TEACHERS... PLAN TO ATTEND...

Soar to Greater Heights Growing STEMs for the Next Generation

Annual Meeting of The Environmental Education Association of New Mexico, the New Mexico Council of Teachers of Mathematics, and the New Mexico Science Teachers Association

**Friday – Sunday, November 1 - 3, 2013
Centennial High School, Las Cruces, NM**

For more information, call for proposals, early bird registration, scholarships, and more, check the meeting website at www.nmsta.org.

CHILDREN'S CLASSES

PREHISTORIC PRESCHOOL

Prehistoric Preschool is a Museum program for 3- to 5- year-olds and their adult companions to explore natural history topics in a supportive and fun atmosphere. All activities are child-centered, hands-on, and age appropriate. Classes include two hours of crafts, songs, games, puppet shows, investigating specimens from the Museum's collections, Museum visits, and a fun and healthy snack.

Participants may choose to attend either Thursday or Saturday morning or afternoon classes from 10 a.m. to noon or 1 p.m. to 3 p.m – or – Friday morning classes from 10am to noon.

Fall Session 2: Paleontology 101 (November 7 through December 21)

First class begins November 7 – 9

Learn about prehistoric creatures from the eyes of the people who study fossils! If your

NOTE: Classes already in progress may still have openings. If you join a class already in progress, the cost will be prorated.

child loves dinosaurs, then this class is the next step! Tune them into the joy of being a paleontologist!

All class participants must be accompanied by an adult. No more than two children may be registered per adult companion and no more than two adult companions may accompany any one child. Maximum class size is 12 children and their adult companions.

Cost: \$90 for the first child, \$81 for the second child in the same family.

Museum members receive a 10% discount. **Scholarships available** for children who qualify. To apply, download the Preschool Scholarship application and instructions. Preregistration is required.

See detailed descriptions of sessions and register for classes at www.nmnaturalhistory.org

Information: www.NMnaturalhistory.org
Questions: August Wainwright
email: programs.NMMNHS@state.nm.us
call: 505-841-2861

YOUNG EXPLORERS WINTER HOLIDAY CAMP 2013-2014

FRIDAY, DECEMBER 27, 2013

--- Dinosaurs and Friends ---

MONDAY, DECEMBER 30, 2013

--- Earth to Mars ---

THURSDAY, JANUARY 2, 2014

--- Tracks and Scat ---

FRIDAY, JANUARY 3, 2014

--- New Mexico's Ice Age ---

Each day's session is a stand-alone science camp. Sign up for one session, more than one, or for all of them.

For camp descriptions, schedules, and registration, go to www.NMnaturalhistory.org after October 15 for more information, cost, and registration.

Questions: *August Wainwright*
email: programs.NMMNHS@state.nm.us
call (505) 841-2861

300 MINUTES OF SCIENCE

Catch the Museum every Monday morning at 11 a.m on KOB TV 4 for the exclusive series—*300 Seconds of Science*. Designed to bring the museum to your home and classroom. Learn about all of the sciences at the Museum.

Be a part of it!!

TITANIC IS LEAVING US ON OCTOBER 27

SUBMISSIONS FOR VAN

Please put the word 'VAN' in every emailed submission Subject line. This will reduce the chances of my missing your input! Thank you!

-Louise Harris, Editor

Francesco Zuffi



The New Mexico Museum of Natural History and Science serves the public in ways many are not aware of. One of the ways I like to utilize the volunteer program is to provide educational opportunities. This summer a student from Italy, Francesco Zuffi, worked almost 300 hours supporting the work of Dr. Spencer Lucas and receiving the hands-on enrichment he hoped for when he contacted me through a friend in Albuquerque.

Francesco studies natural sciences at the University of Bologna. His planned field is Anthropology, specializing in Osteology. He was not able to get an answer from the Maxwell Museum of Anthropology, so he contacted me. I tried a number of staff and almost gave up, when Dr. Lucas responded in the affirmative. Francesco was a strong asset on several excavation trips; he came back tanned, tired and happy. He was also able to get some valuable collections experience with Amanda Cantrell. With his sunny smile, I think Francesco brought something special to everyone here, and it looks like Spike made a new friend!

Doug Simon
Shared Resources Volunteer Coordinator



LATEST DINOSAUR DISCOVERIES IN THE CRETACEOUS OF THE SAN JUAN BASIN

Stemming from a BLM funded paleontological survey in July of 2011, the title of the September 16, 2013, FOP talk by Interim Geosciences Collections Manager Amanda Cantrell laid claim that her current dig is the most recent major prospecting effort by the New Mexico Museum of Natural History and Science in the Bisti-de-na-zin Wilderness. Amanda organized her talk into eight segments:

1. *Where is the Bisti/De-na-zin Wilderness?* Located 50 miles south of Farmington or about 200 miles northwest of Albuquerque on Highway 550. The wilderness is a 41,000 acre federally protected area with numerous washes, three of which, the Hunter, Alamo and Da-na-zin, were of interest.
2. *What are the rocks like?* The rock formations in the area consist of the fully marine Pictured Cliffs Sandstone and Lewis Shale, the dinosaur producing terrestrial sandstones, mudstones and coals of the Fruitland and Kirtland Formations and the Ojo Alamo Formation which spans the Mesozoic/Cenozoic boundary.
3. *What was the world like during the Cretaceous?* Heightened mid-ocean-ridge activity during the Late Cretaceous time period caused temperatures to be warm and sea levels to be high. In North America the Western Interior Seaway would have connected the Gulf of Mexico to the Arctic Sea. The rocks expressed in the Bisti/De-na-zin area today represent this seaway as well as the rivers and swamps that would have surrounded it. The riparian and swampy environments in this area at the time would have been the perfect place for dinosaurs to live.
4. *Who was on the team?* The original team comprised Dr. Spencer Lucas, Dr. Bob Sullivan, Amanda Cantrell, Tom Suazo and Josh Fry. Recent efforts have been aided by Larry Rinehart, Charles Turner, Darren Raspa and a visiting paleontology intern from Italy, Francesco Zuffi.

5. *What was it like in the field?* The survey took place in July, the hottest month of the year in the Bisti/De-na-zin Wilderness. Having enough water to sustain camp and for plaster jackets was the biggest hurdle. Unpredictable rainstorms filled washed and made prospecting or recovering fossils difficult. Hungry dogs and llamas from the surrounding Navajo Reservation visited camp. The crew spotted the New Mexico state insect, the *tarantula hawk wasp*, which has the second most painful sting of any insect. Many other creepy crawlies like mole crickets, centipedes and scorpions were found in the field.
6. *What did they find?* They found an assortment of fossils including the disarticulated skeleton of the first juvenile Pentaceratops known to science, the skull and first cervical ring of a new species of Ankylosaur, an isolated Ankylosaur cervical ring, two tyrannosaur teeth, a turtle shell and many other fossils.
7. *Where are the specimens now?* The specimens are now housed in the Geoscience Collection at the New Mexico Museum of Natural History and Science, with the exception of the juvenile Pentaceratops skeleton which the crew is still working to retrieve from the Bisti/De-na-zin Wilderness.
8. *What are the plans for the future?* Fieldwork continues in the Bisti/De-na-zin Wilderness to retrieve the juvenile Pentaceratops. A team of scientists from Canada are working with Dr. Spencer Lucas and Dr. Bob Sullivan to name the Ankylosaur as a new species. All of the other fossils are being prepared and curated at the New Mexico Museum of Natural History and Science.

Amanda Cantrell
Interim Geoscience Collection Manager

FOP Meetings

The next two meetings of the Friends of Paleontology will be held in the Museum Multipurpose Room at the following dates and times:

Monday, 21 October 2013, 7:00 pm. Speaker: Dr. Bruce McFadden, Florida Museum of Natural and Science. Subject: TBD

Monday, 26 November, 2013, 7:00 p.m. Speaker: Gary Morgan Subject: TBD.

Dick Yeck, VP Programs, FOP

Education, Bioscience, Volunteer Association Joint Pilot- Project Proposal Draft

Proposed by : Jim Peavler, Deb Novak, Mike Sanchez, Ayesha Burdett, Dwight Jennison

2013-2015: New Mexico Museum of Natural History and Science Strategic Plan: A Force for Good.

Addressing Important New Mexico Issues: By focusing its resources on areas of importance to our state and related to its mission, the Museum's impact is increased. Areas critical to the state's long term well-being in which the Museum can play an important role include: science education and lifelong learning; water and the Middle Rio Grande; Biodiversity; Climate Change, Sustainable Energy Development; and Innovation... (Executive Summary).

"...high-impact nonprofits work with and through organizations and individuals outside themselves to create more impact than they could ever achieve alone..."

"The primary strategy for statewide impact will be through partnerships."

Charles H Walter

Executive Director, NMMNHS

The three pilot programs we are proposing are:

Darwin Day/Week, February 8 – 16, 2014

Earth Hour, March 29, 2014. All day event.

Earth Day and Arbor Day/Week, April 18-27, 2014

(Because they are within one week, Arbor Day/Earth Day can be combined into one coherent program.)

Some suggestions for Sample Darwin Week Model Schedule: (Nothing is in stone yet. Our new activity will determine the content and participation in the programs).

Major initiatives on Saturday, February 8; Darwin's birthday, February 12; and Saturday, February 15, and minor programming other days of the week.

Focus on evolution and the daily applications of evolutionary science.

- Mike S. shares his Evolution papers and Teacher Kit with Volunteers interested in participating to whet appetite.
- Tom Williamson's recent work illustrates how rapidly evolution (only ~ 50,000 years) can fill empty niches, such as the mammal radiation after the K/Pg extinction.
- Education staff and Volunteers provide a half-day teacher Workshop on teaching Evolution followed by a half day symposium open to all. Volunteers help develop activities, resources and symposium panel positions.
- Purple Puppet Theater script on Darwin and evolution developed and presented by volunteers throughout the week. Target audience is K-3.
- School Group and Visitor Activities developed by volunteers with Education assistance. To be offered to visiting school groups during that week and also potentially as outreach to classrooms along with tables for visitors to interact during weekend hours.
- Develop and offer a Student or Teacher paper contest on evolution statewide. Winners will be selected by volunteers and provided some prize at Museum during Darwin Week.
- General Public Tour developed on Evolution examples in the Museum. Tour to be written and provided by trained volunteers.

The model schedule and activities would be used as a template for other themed days or weeks.

Arbor Day/Earth Day: Earth Hour would have an energy conservation theme. Earth Day/Arbor Day would use some of Earth Hour and expand on green topics and trees.

The VAN

The VAN is published bimonthly. There are six regular issues each year: *February-March*, *April-May*, *June-July*, *August-September*, *October-November* and *December-January* and an occasional *Special Issue*. The deadline for submitting articles or photographs for the next regular issue is always the fifteenth of the month prior. The deadline for the *December-January* issue, for example, will be November 15, 2013.

Please send items for the VAN to Louise Harris, VAN Editor, <louise@goingourway.net>, with a copy to Chris Sanchez DCA <chris.sanchez@state.nm.us> and Doug Simon DCA <doug Simon@state.nm.us>

The VAN mission is to inform, engage, and enhance the experience of NMMNHS Volunteers, by acting as a vehicle of *continuing education*, keeping volunteers informed about the Museum, and relaying news of volunteers and their activities.

Your articles pertaining to the museum are most welcome. Articles may be edited for clarity and space limitations.

Editor Request: Please put the word "VAN" in your email title.
