



OUR NEW PLANETARIUM *Projection System* IS FUNDED – A THANK YOU

I wish to thank the many volunteers who signed the letter to Secretary of DCA Veronica Gonzales, but also the many other people who contributed to the outcome. When it became apparent that the larger request for funding was not fiscally possible, Charlie and Jotina worked the Round House, obtaining a smaller amount that could serve as seed money, but which needed to be protected. Since the staff cannot lobby, I wanted to explore whether the Volunteers' Association could help to spread the word concerning the importance of the planetarium for STEM-based educational motivation.

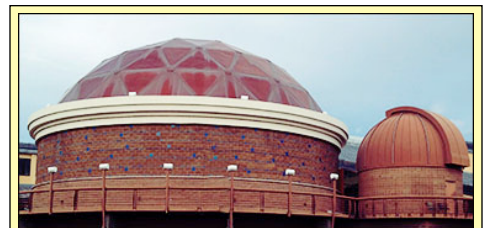
Charles Compton, Brian, Jayne, Larry, Simone and I brainstormed this, settling on a letter writing campaign to give Veronica support, who has been our champion throughout. Jim and Simone contributed talking points and I added words concerning how planetariums motivate many kids to become interested in science, myself included (the Hayden in NYC). Barry and Charlie were then brought into this for distributing information to our membership and because, to my knowledge, volunteers have not attempted such a thing before, and we definitely wanted to coordinate with our Director. Finally, I wrote Veronica personally to alert her to the letter campaign, and received a warm response.

Many of you signed paper copies or sent them electronically to her administrative assistant, and I was able to hand Charlie a stack of signed letters, which he handed to Veronica. Finally, our Governor approved the allocation that could be used for the computers needed for the new projection system. Jeannie also played a role, putting me in touch with the NASA Science on a Sphere contact, who connected me to the NOAA one, so that I could verify that our new planetarium would have full SOS capability, and I could make the argument for its importance in teaching Earth Science.

CONTINUED



See the actual award when it is mounted in the Hall of Stars!



PLANETARIUM SCHEDULE THROUGH SEPTEMBER 1, 2014

- 11:00 am • Earth's Wild Rise
- 12:00 am • Dark Universe
- 02:00 pm • Enchanted Skies
- 04:00 pm • Dark Universe

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But then Secretary Gonzales stepped in to work on the rest of the needed funding, and it appears that we will be receiving the entire amount necessary for a new projection system. The funding will be coming in two parcels, and we hope to have the new projection system totally installed and functional by the end of September.

For Science on a Sphere shows, the current plan is to experiment with offering them to visitors at specific times within the regular schedule. We hope to present these shows by volunteer presenters. In the autumn I will be gathering for training the names of those who wish to become presenters. I will make Space Science and Earth Science playlists and perhaps another for presentations to school groups. Deb also supports this effort. When I was running SOS last year, I had never experienced such a positive response from our visitors - it was really great fun.

We anticipate that the planetarium will have the latest Sony projectors, with "4K" resolution and probably about ten times as bright as the old one - the demos we saw last fall were spectacular. SOS will be as bright and crisp as the real one, and controlled by a presenter using an iPad while sitting with visitors.

Dwight Jennison, Space Sciences Strategic Planning Committee, Volunteer Continuing Education Committee

Earth's Wild Ride - Join a grandfather and his grandchildren on a future lunar base as they observe the moon's shadow crossing the Earth. They recall key moments in history, such as the time of cave dwellers and the day the dinosaurs met with catastrophe. They'll also talk about the differences between the Earth and moon.



This live tour of the heavens above New Mexico changes constantly and highlights the planets, constellations, deep sky objects and special astronomical events coming soon to a sky near you.

[Se ofrece una versión en español de Cielos Encantados el primer domingo de cada mes a las 3:00 pm.]

Dark Universe - Go beyond the night sky and into deep space to find out how discoveries over the past 100 years have led us to two great cosmic mysteries: dark matter and dark energy. Hurtle through Jupiter's atmosphere, peer at the web of dark matter holding galaxies together, and watch the colorful remains of the universe's beginnings unfold. Your guide is astrophysicist Neil deGrasse Tyson, host of the television series Cosmos.

Doug Simon

REMEMBER: If you are reading the VAN online, all blue URL's are hyperlinks that can be activated with a click of your mouse!!

THE REST OF THE STORY...

Last issue of the VAN featured a note from our membership committee chairperson, Penny Goldstine. She had two important messages for our volunteers concerning the importance of signing in and of making sure that your dues reach the Volunteer Association.

Now as they say... For the rest of the story! Penny has spent many long hours working with our Volgistics system to insure that it works well and serves the volunteers, the volunteer coordinator, and the interests of the museum. Thanks to her hard work, we can now be confident that Volgistics works for us and that we can use it as a data base to better move forward. A great big **Thank You** to Penny for taking on this huge project!

The other important piece of information that needs to be shared is the purpose of collecting dues or contributions to the NMMNHS Volunteer Association. In the past year the volunteers have been able to open the brand new Hall of the Stars with volunteer contributions of time, expertise, and money. If you haven't checked it out, please do so. It's really something to be proud of.

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THE REST OF THE STORY, CONTINUED FROM PAGE 2

In addition the volunteer board has recently approved money to provide new work benches in FossilWorks and for a wonderful dinosaur family tree which will enhance the Jurassic Hallway. The Jurassic Hallway will also be marked by dino footprints to better lead visitors on to the Cretaceous exhibit.

These are just some of the ways in which we have spent volunteer money to really have a positive impact on the museum. If you would like to help us continue with this important work, please do remember to be sure your dues reach us. We would also welcome any additional contributions directly to the Volunteer Association which can be done by including a note with your donations or dues that the money is to go to the Volunteer Association Main Account. It will also help to note this on your check.

In short, we are working hard to insure that your volunteer money is used to directly benefit volunteers or for worthwhile projects which will enhance museum exhibits.

Pat Robinson
President-elect NMMNHS Volunteer Assn.

June's CONTINUING EDUCATION SEMINAR

JOHN MCDONNELL: *Economic Geology of New Mexico - Volcan's Forge*

June 17, 2014 • 10:30 AM • BOARD ROOM
(second floor)

SUMMARY: John's talk, *Volcan's Forge*, will take us from the surface manifestations of volcanism deep into the sub terrain realm where intrusive rocks give way to volcanic. There, in the upper reaches of hypabyssal stocks and throat rocks, porphyry deposits and cogeneric scarns and epithermal veins are formed. From this introductory survey, we will then take a look at relevant deposits in New Mexico and what they mean for the state. We'll conclude the meeting with an open discussion concerning how to better represent the economic geology of New Mexico in our exhibits.

John McDonnell spent much of his career as a geologist in the exploration of uranium and other minerals (copper, gold, silver), with much of it in volcanic terrains in the western US, following his Bachelor in Science in 1963 from the College of Mines, University of Arizona, in Tucson.

Malcolm Siegel,
MVA Continuing Education Committee
msiegel51@yahoo.com 688-3716

July's CONTINUING EDUCATION SEMINAR

LARRY REINHART: *The Paleobiology of Coelophysis*

July 29, 2014 • 10:30 AM • BOARD ROOM
(second floor)

Larry offers the following introduction to his talk:

Coelophysis, one of the first dinosaurs, was a visually-oriented predator and a powerful runner. It congregated in large numbers. It probably provided parental care for its young, yet it would cannibalize them under some circumstances. Mortality was very high in the juveniles, but if they reached adulthood, a long life was probable. We know much about the growth, reproduction, and lifestyle of this remarkable animal. This talk will focus on what we know and how we know it -- how the research proceeds and how the results are interpreted.

Bud Hodgkin
Coordinator, Continuing Education Committee
hollybudhodgin@gmail.com



ICE AGES, THE ANCESTRAL ROCKY MOUNTAIN OROGENY AND LATE PALEOZOIC SEDIMENTATION IN NEW MEXICO

Part 1 of speaker Spencer Lucas' topic for the 20 January 2014 FOP meeting focused on the history of the *Ancestral Rocky Mountain orogeny (ARM)* during the complex history of the Gondwana and Laurussia land masses and the Pennsylvanian/Permian sedimentation of New Mexico. *Orogeny* was described as events leading to structural changes in the crust and mantle, or just plain old fashioned mountain building. Two smaller orogenies, the Marathon and the Dugout, occurred in New Mexico during that timeframe.

Part 2 addressed *glacial eustasy*--the measurement of waxing and waning of sea levels and ice sheet cycles that may reflect a change in the quantity of water in an ocean or a change in the shape and capacity of ocean basins. The Pennsylvanian and Permian periods had cold spells which led to overprinting by eustasy. Few glacial eustasy cycles

are intermixed, and to date strata has typically been attributed to glacial eustasy collected from US midcontinent strata from a relatively quiet geologic history (that is geologically different from New Mexico strata.) The Midcontinent analysis process includes the Marincovich equations of earth and sun positions in 100k year cycles to calculate the cycle durations in the late Pennsylvanian period (some researchers regard the equations as orbital forcing).

New research does not support glacial eustasy as the only method to define the Paleozoic sedimentation in New Mexico. During the early Permian the ocean experienced extensive glacial eustasy from the collapse of Gondwana ice sheets, which is interpreted to be too small to have affected global sea level. There were many off and on cyclotherms of cold, and the glaciers may not have been big enough to affect sea levels.

Late New Mexico Paleozoic stratum contains significantly fewer cycles than recorded by the Midcontinent, (which can be seen at the mixed marine/non marine Carrizo Arroyo in the Lucero Uplift). Conodont ages indicate that the New Mexico strata have too few cycles to be compared to Midcontinent data. The Oscura Mountains late Pennsylvanian strata have mixed marine--nonmarine fusulinid age markers and 8 -10 cycles verses the 73 recorded in the Midcontinent data. Also, the Bursum strata has better age control of marine conodonts for dating than does the Midcontinent.

Dick Yeck
FOP VP for Programs

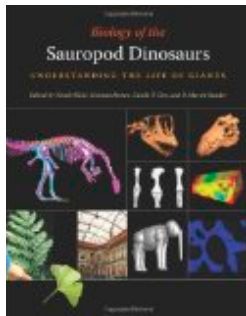


News of Books

The Spring crop of books mostly deals with dinosaurs with the one exception on pterosaurs.

Biology of the sauropod dinosaurs: understanding the life of giants. Edited by Nicole Klein, et al. (QE862 S3 B56 2011)

From the Preface (p. ix): "A highly diverse group of researchers in Germany and Switzerland join forces in an attempt to understand why and how the largest of the large, the long-necked sauropod dinosaurs attained their gargantuan proportions... The 38 authors who have helped to put together the latest knowledge on sauropod dinosaur biology... are



specialists in animal nutrition, bio-mechanics, bone histology, computer modeling, dinosaur anatomy, evolutionary ecology, geochemistry, materials science, paleobotany, physiology, veterinary medicine and zoology."

Dinosaurs of Utah. Second edition. Frank DeCourten. (QE862 D5 D42 2013)

"An ambitious book bridging the gap between the voluminous technical literature on Utah's Mesozoic era and the numerous publications that describe dinosaurs at the elementary level. 'Utah' dinosaurs are presented here as part of the Mesozoic terrestrial ecosystem that evolved in the Colorado Plateau region and are discussed in the context of the changing landscapes, environments, and biota recorded in the geologic record." (from back cover)

Dinosaurs without bones: dinosaur lives revealed by their trace fossils. Anthony J. Martin. (QE861.4 M367 2014)

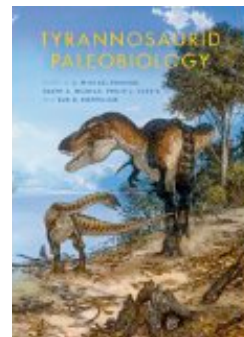
"The research specialty of *ichnology*—the study of *trace fossils* (tracks, trails, burrows, feces, and other traces of behavior, including fossil examples)—is about that exciting intersection between science and flights of fancy... I like to argue that for us to

truly grasp how dinosaurs behaved, to really know how they lived as animals and interacted with one another and their environments, we absolutely must study their trace fossils, and not just their bones, in order to paint the most vivid picture imaginable of their world." (p.9)

Pterosaurs: natural history, evolution, anatomy. Mark P. Witton. (QE862 P7 W58 2013)

The first ten chapters are general introductions to pterosaurs followed by chapters dealing with individual groups, and the conclusion points out areas for further research. "Most modern pterosaurologists perceive pterosaurs as successful, diverse animals with interesting and intricate life histories... We'll meet numerous pterosaur groups and over one hundred species spread across a dynasty spanning almost the entire Mesozoic." (p.3) This work is heavily illustrated.

Tyrannosaurid paleobiology. Edited by J. Michael Parish, et al. (QE862 S3 T96 2013)



The majority of chapters started as papers delivered at the Conference on the Origin, Systematics, and Paleobiology of Tyrannosauridae held September 16-18, 2005. The Conference was "held in conjunction with the development of the Burpee [Museum of Natural History]'s new dinosaur hall, the centerpiece of which was a skeletal reconstruction of 'Jane,'... a relatively complete and very well preserved specimen of a juvenile tyrannosaur." (Introduction, p. ix) "The chapters in this volume fall into three broad categories: (1) systematic studies and descriptions of new material, (2) projects incorporating functional morphology or life reconstruction, and (3) contributions focusing on paleoecology, taphonomy, and paleopathology." (Introduction, p. xi)

Hope you enjoy these new books. Your librarian,
Mina Jane Grothey, mgrothey@unm.edu

June and July, 2014 Museum Adult and Family Educational Programs

JUNE

June 1 • First Sunday

June 3 • Special Event

Bosque Forum

June 5 • For Teachers

Bosque Education Workshop

June 7 • STARTUP

Scratch Workshop

June 9-13 • For Teachers

Energy Institute

June 13 • SMNHC

Fire Ecology Hikes

June 14 • Special Event

Astronaut Luca Parmitano

June 21 • Field Trip

VLA Solstice

June 22 • Special Event

International Sun Day

June 22-25 • Field Trip

San Juan River

June 28 • SMNHC

Public Open House

JULY

July 6 • First Sunday

July 8-11 • For Teachers

Mars Workshop

July 9 • SMNHC

Evening Stroll

July 13 • Field Trip

New Mexico Springs

July 15 • Special Event

Family Science Night

July 16 • Curator's Coffee

Bioscience Collections

July 19 • STARTUP

3D Printing, Scanning, and Design



Space Science Special Event

Day with an Astronaut

Saturday • June 14, 2014

The New Mexico Museum of Natural History and Science is honored to host a special visit from European Space Agency Astronaut Luca Parmitano. He was flight engineer on Expedition 36/37 to the International Space Station. During the mission his second spacewalk was ended abruptly when the helmet of his suit began to fill with water. Don't miss your chance to hear about his experiences as an astronaut.

There will be several events on June 14.

AFTERNOON SHORT TALK by Luca Parmitano

What is it Like to be an Astronaut?

Saturday June 14 | 1:00 pm - 1:45 pm in the

Planetarium, Followed by photo signing

FOR CHILDREN (12 and under) AND FAMILIES

Cost: \$8 adults, \$6 seniors/students/members, \$4 children

EVENING LECTURE by Luca Parmitano with *Optional*

Reception ***Luca Parmitano and Expedition***

36/37 to the International Space Station *FOR*

ADULTS AND STUDENTS (age 13 to 18)

RECEPTION:

Saturday June 14 | 5:30 pm - 6:30 pm

Meet and talk to Astronaut Luca Parmitano

Light refreshments; Cash bar 21+

LECTURE:

Saturday June 14 | 7:00 pm - 8:30 pm (including

Q & A time) in the DynaTheater.

LECTURE ONLY: \$15 adults, \$12 MEMBERS/

seniors/students

Lecture and reception: \$30 adults, \$27

MEMBERS/seniors/students

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Luca Parmitano is an Italian astronaut in the European Astronaut Corps for the European Space Agency (ESA). He was selected as an ESA astronaut in May 2009. Major Parmitano is also a pilot in the Italian Air Force and a master's degree in experimental flight test engineering earned at the Institut Supérieur de l'Aéronautique et de l'Espace (ISAE), in Toulouse, France. In 2007 he was awarded the Medaglia al Valore Aeronautico d'Argento (Decoration for Aeronautical Valour in Silver) by the President of the Italian Republic after a safe emergency landing. He has a family connection with New Mexico and this Museum (he is Mike Sanchez' brother-in-law).

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

Seats are limited.

Visit: www.nmnaturalhistory.org For info: August Wainwright at programs.NMMNHS@state.nm.us or 505-841-2861



Special Events

Solar Sun-Day

June 22 • 10:00 am - 2:00 pm

The Albuquerque Astronomical Society and the Museum will offer safe views of the sun weather permitting. Events will be canceled if the sky is cloudy.

May 18: Solar Sunday - Also see displays from the ABC Library's summer reading program and the UNM Institute of Meteoritics.

June 22: International Sun-Day - Share creative photos, drawings, and thoughts on social media sites.

FREE (with Museum admission) No registration required. For info: <http://solarastronomy.org>

Bosque Forum

Tuesday, June 3 • 6:00 - 8:00 pm

Join in a dialogue with local and regional specialists in panel discussions about the Rio

Grande, the Bosque, and Rio Grande Valley State Park. There will be an opportunity to ask questions about the discussion topics and meet with participants.

Topic for June 3: *The Future of Rio Grande Valley State Park*

FREE No registration required.

Family Summer Science Night

Tuesday, July 15 • 5:30 - 9:30 pm

Summer celebration of science at the museum, and to make it even better—**everything is a \$1!** Live music, activities and fun! In partnership with the National Hispanic Cultural Center.

Sponsored by Telemundo.

\$1 for museum admission, **\$1** planetarium shows, **\$1** hot dogs in the Museum café.

No registration required.



Curator's Coffee

A Café Style Program

Join us for a casual discussion followed by a themed tour. Limited to 15 people and includes coffee, light refreshments, and Museum admission.

Conservation and Preservation of the Museum's Biological Collections

Patricia J. Gegick, Bioscience Collections Specialist, NMMNHS

Wednesday, July 16 • 9:30-11:00 am

Patricia Gegick, will discuss the importance of biological museum collections, how they are used, and how they are preserved and maintained. This Curator's Coffee will consist of a behind-the-scenes tour of the Museum's biological collections, which includes plants, insects, mammals, mollusks, and birds.

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Patricia Gegick earned a BA in Art from Pennsylvania State University and an MS in Biology from UNM, where she studied bats. She has been involved in research projects in plant ecology, developmental biology, endangered species and plant-herbivore interactions. She has managed the Museum's Bioscience Collections since 2002, and has been associated with NMMNH&S since the early 1990s.

\$8 (10% discount for members and volunteers)

Pre-registration required. To guarantee your place, register online, go to www.NMnaturalhistory.org (linked to BrownPaperTickets.com)



Field Trips

Special Solstice Trip to the Very Large Array

Saturday • June 21, 2014

The day begins at 8 am at the NM Museum of Natural History and ends at approximately 6 pm at the Museum.

After a special viewing of the new planetarium show *Dark Universe*, the tour bus will depart from the Museum for the VLA. During the drive, Museum experts will talk about the geology of the surrounding landscape and updates on space science research in New Mexico.

The 3 to 4 hour visit at the VLA includes behind-the-scenes tours. About one-third of the day will be spent walking outside. All areas visited are ADA accessible.

Wear good walking shoes, dress appropriately for the weather, and bring water. The VLA is at 7000' so bring any necessary inhalers or other respiratory aids. You may take photographs and videos; however, all tablets, cell phones, and other devices that can link to the internet must be kept on airplane mode or turned off at all times while at the VLA.

NOTE: Rules and regulations for the VLA.

- All electronic devices must be OFF or in airplane mode while at the VLA
 - The VLA is at 7000 ft please be aware of any health conditions that may be aggravated by this altitude
 - Stay on designated trails
- Watch out for snakes and other wildlife
- Please take pictures of anything you wish inside/outside

This trip is for participants age 10 or older. Preregistration required (Registration must be received by June 2)

Cost: \$60 adults; \$55 Museum members, seniors; \$50 children/students between the ages of 10 and 18). Includes transportation to and from the VLA and a box lunch (vegetarian choice will be available). The trip will be canceled if fewer than 25 participants register by June 2.

Register by June 2. Seats are limited.

To register, go to: www.nmnaturalhistory.org

For info: August Wainwright at programs.NMMNHS@state.nm.us or 505-841-2861

Family Fun on a River Run: Rafting the San Juan River

Sunday, June 22 • Wednesday, June 25

TRIP LEADERS:

Tish Morris, Naturalist/Science Educator

Kristin Gunckel, Ph.D., Geologist/Educator

For children 7 years and over with parent(s), grandparent(s), or other adult relatives—no rafting experience necessary. In this summer's family rafting adventure we will float 26 miles between Bluff and Mexican Hat, Utah. Learn about the natural history of this river ecosystem, and the area's plants and animals through games, stories, and activities. There will be lots of time for playing in and on the water.

CONTINUED

Co-sponsored by Four Corners School of Outdoor Education

\$715 adult (\$690 accompanying child under 12)
Members \$695 adult (\$670 accompanying child under 12)

Includes all food from dinner Day 1 through lunch Day 4 and group equipment and supplies. Expert staff and river guides. Families meet in Bluff, Utah on the evening of June 22. Complete itinerary available. Camping equipment may be rented.

Register by May 22. Information:
www.NMnaturalhistory.org

Registration through Four Corners School of Outdoor Education: Go to <http://www.fourcornersschool.org/our-trips/item/526-family-fun-n-redrock-run-upper-san-juan> or call 800-525-4456.

New Mexico Spring

Sunday, July 13 • 7:30 am - 2:00 pm

Trip Leader: Laura Crossey, Ph.D.

In our dry southwest, finding water springing from the ground is a welcome sight. Join us and explore the whats and whys of springs—why are they where they are? What causes them to be warm or cold? What minerals are carried to the surface, and what does that chemistry tell us about the geologic and hydrologic picture of the region?

We will travel to the San Ysidro area where we will do a moderate to steep hike to some springs and amazing travertine deposits. Then we will drive up the Jemez valley, stopping for lunch at a picnic area, with a final stop at Soda Dam before returning.

Dr. Crossey is Chair of the Earth and Planetary Sciences Department, UNM. Her research is in Sedimentary Geochemistry, with emphasis on the interaction of organic and inorganic constituents of sedimentary rocks. She is conducting studies on the natural springs in the Jemez - San Ysidro area, and in other areas throughout the southwest. She earned a Ph.D. from the University of Wyoming.

\$40 (Members \$35) Limited to 18 participants. Preregistration required. Information and registration: www.NMnaturalhistory.org

Coming up....

Jornada Bat Cave Experience

Date in August TBD

Details will be set end of May. Registration available after May 31.

If you are interested in attending, please email tish.morris11@gmail.com and you will be contacted when details are available.

TRIP LEADERS:

Gary Morgan, Museum Curator of Paleontology,
Larry Crumpler, Ph.D. Museum Research Curator of Volcanology

Tom Waddell, Armendaris Ranch Manager

New Mexico's largest colony of Mexican freetail bats, and fourth largest in the country, is on the private Armendaris Ranch. In the warmer months, from 200,000 to several million bats emerge from collapsed lava tube caves in the **Jornada del Muerto Volcanic Field**. Sitting on a ledge above the cave opening, the sights and sounds are unforgettable.

Participants will caravan from Albuquerque or meet in TorC. Those with 4-wheel drive vehicles are encouraged to drive and carpool for ranch road access. The trip will end that evening at a motel in TorC. Participants can return at their leisure to Albuquerque the following day.

\$175 will include lunch and dinner. Motel expenses are not included. Proceeds benefit the Museum's Education programs. Information and registration after May 31:

www.NMnaturalhistory.org



Summer Programs at the Sandia Mountain Natural History Center

(The Museum's Environmental Education Field Center)

Fire Ecology, Tree Thinning and Forest Health

Friday, June 13 • 6:00 - 8:00 pm

The SMNHC staff will lead hikes through the forest to discuss why some areas have been thinned, burned, or left untouched for different ecological purposes. The staff will discuss the many land management techniques used to promote a healthy, well-balanced ecosystem.

Free. Space is limited so please register for the hikes at chris.modelski@state.nm.us

Please check the Sandia Mountain Natural History Center web page at nmnaturalhistory.org/smnhc for updates to this list or directions to the Center.

Public Open House at SMNHC

Saturday, June 28 • 9:00 am - 2:00 pm

The 128-acre environmental education center will open its gates to give outdoor enthusiasts a chance to explore this hidden New Mexico gem. Visitors will be able to hike over 5 miles of trails, search for numerous geocaches, learn from three interpretive trails, and spend some time in the exhibit rooms and birding areas. Guided hikes will begin at 10:00 am.

Free. No preregistration required

Please check the Sandia Mountain Natural History Center web page at nmnaturalhistory.org/smnhc for updates to this list or directions to the Center.

An Evening at the SMNHC Sunset Strolls, Birding, and Nights Sky Viewing

Wednesday, July 9 • 7:00 - 10:00 pm

Normally open to the public in the mornings and afternoons, the SMNHC will be open for a special evening event. Visitors will have the opportunity view the sun through a solar telescope, do some evening birding, and take a hike at dusk. After the sun goes down the astronomers from the NMMNH&S will bring out the telescopes and interpret the night sky. Come for part or the entire event.

7:00 - 7:30: *Solar telescope viewing*

7:30 - Sundown: *Short dusk hikes*

7:00 - Sundown: *Sunset birding at 2 bird blinds*

Sundown - 10:00: *Night sky viewing*

Free. No pregristration required.

Please check the Sandia Mountain Natural History Center web page at nmnaturalhistory.org/smnhc for updates to this list or directions to the Center.



First Sundays

Sunday of every month, the 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.

Sunday, June 1 & July 6 • 9:00 am - 5:00 pm

FREE Admission to the Museum for all New Mexico Residents

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

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

Limited to 14 participants ages 13 and up
Tours are first-come, first-served.



Museum Tours

Museum Exhibit Tours

Mondays • 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.



For Teachers Only

Bosque Education Guide

Teachers' Workshop

Thursday, June 5 • 8:30 am - 4:30 pm

Held at the Rio Grande Nature Center State Park •

For teachers of grades K-12

Join other educators in getting to know this amazing hands-on, K-12, interdisciplinary curriculum about the Middle Rio Grande Bosque Ecosystem.

For more information, visit the Bosque Education Guide website: nmnaturalhistory.org/bosque-education-guide.html.

Sponsored by: New Mexico State Parks and NMMNHS

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.

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

Workshop is held at the Rio Grande Nature Center State Park
2901 Candelaria NW, Albuquerque, NM 87107
(505) 344-7240

For directions or additional information for the Rio Grand Nature State Park visit the website:

www.emnrd.state.nm.us/prd/rgnc.htm

Energize NM Teacher Professional Development Institute

June 9-13 • 9:00 am - 4:00 pm daily

Held in Albuquerque at New Mexico Museum of Natural History and Science,

The National Museum of Nuclear Science & History, and ¡Explora!

For teachers of grades 3-5

This institute focuses on NM-relevant energy projects addressing Common Core, Next Generation Science, and NM Science Standards with an emphasis on literacy, math and science integration featuring continued support of program outcomes throughout the school year. Brought to you by the NM Museum of Natural History and Science, The National Museum of Nuclear Science & History, ¡Explora!, and New Mexico EPSCoR.

Application due date is April 21. Information and to apply: <http://nmepscor.org/workforce/energize-nm-teacher-professional-development-institute>

Teachers will receive a stipend of \$625 for the week; additional stipends possible.

Mars Through Time

Tuesday-Thursday • July 8-11

Held at the UNM Department of Earth and Planetary Sciences in Albuquerque.

For high school teachers

This 28 hour, professional development training focuses on Mars science and exploration, the nature and process of science, and the relationship between technology and science using the history of Mars exploration as an example.

CONTINUED

Workshop supported by the [ChemCam instrument](#) onboard the Curiosity rover, the [Lunar and Planetary Institute](#), the UNM [Dept. of Earth and Planetary Sciences](#) and the [NM Museum of Natural History and Science](#).

Registration is free. Travel stipends are available for select participants based on need. **Register by May 16.**

For info and to register: <http://www.lpi.usra.edu/education/workshops/mars/>, or contact Andy Shaner at (281) 486-2163 or shaner@lpi.usra.edu



STARTUP Studio **Workshops**

For families, students, and adults

Workshops are held in the Highlands Classroom at the Museum

Instructor: Miles Tokunow, New Mexico -- artist and graduate student in Media Arts at NM Highlands University.

Scratch Computer Programming

Saturday, June 7 • 1:00 - 4:00 pm

Produce your own mini-games with **Scratch**. For beginners, this can be an introduction to programming language. Non-beginners are encouraged to come!

3D Printing, Scanning, and Design

Saturday, July 19 • 1:00 - 4:00 pm

An introduction to the burgeoning world of 3D printing, simple 3D design and **123D catch**, an app that makes 3D models from photographs.

\$15 (Members, 10% discount) **for each class**

Pre-registration required. Go to www.NMnaturalhistory.org (linked to BrownPaperTickets.com)



Naturescapes Photo Salon

Opens Fall 2014

Call for entries July 14 - August 15

In honor of the 50th Anniversary of the 1964 Wilderness Act, this year's theme is "New Mexico Wilderness." Photographers at all levels are invited to submit. Check www.nmnaturalhistory.org, in early summer for details or contact Dr. Ayesha Burdett at ayasha.burdett@state.nm.us.

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 to the publishing date of the next issue*. The deadline for the **August-September** issue, for example, will be **August 15, 2014**.

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.
