



Friends of the Florissant Fossil Beds eNewsletter

Friends Board Members

Jeff Brandt

Treasurer, Newsletter

Patty Glatfelter

Secretary

Wayne Johnston

Web Master

Harold Kaelin

Linda Laverty

Membership

Sally Maertens

Vice-President

Jerry McLain

Karen Ports

Robyn Proper

Jeff Proper

President

Jean Rodeck

John Schwabe

Project Coordinator

Every Fossil Needs a Friend

#26—May 2015

Upcoming Activities at the Park

Florissant, Colorado – May brings flowers, blue birds, and lots of fun, family activities at Florissant Fossil Beds National Monument. Whether you are interested in fresh air, animals, hiking, family time, stars, or music there will be something this month:

Saturday, May 9

Night Sky Program “Venus, Jupiter, and Saturn, Oh My”, 8:30PM – 10:30PM

Join park staff and members of the Colorado Springs Astronomical Society and explore the landscape of the Milky Way. Telescopes will be provided as you gaze at thousands of stars in the dark skies above the Florissant valley. The program will start with a short interpretive talk followed by 1.5 hours of stargazing.

Saturday, May 16

Yoga Guided Hike 9:00AM – 10:30AM

Join Ranger Denise for a unique outdoor activity – yoga along a trail hike. This program is designed for beginners and focuses on hiking and yoga poses, 1-2 miles.

Kids to Park Day Activities 1:00PM – 4:30PM

Bring your family as we celebrate Kids to Park Day. There will be special, kid-friendly activities:

Children’s Music Concert 1:00PM

Fossil Learning Lab 1:00PM – 3:00PM

Get “up-close and personal” with fossils! Join us for ranger-led demonstrations, and hands-on searches for fossils.

Ranger Led, Family Fun Hike 3:00PM – 4:30PM

Ranger Led Kids Hike on the Boulder Creek Trail, distance 3 miles

Night Sky Program “The Search for Life”, 8:30PM – 10:30PM

Join park staff and members of the Colorado Springs Astronomical Society and explore the landscape of the Milky Way. Telescopes will be provided as you gaze at thousands of stars in the dark skies above the Florissant valley. The program will start with a short interpretive talk followed by 1.5 hours of stargazing.

Saturday, May 23***Yoga Guided Hike 9:00AM – 10:30AM***

Join Ranger Denise for a unique outdoor activity – yoga along a trail hike. This program is designed for beginners and focuses on hiking and yoga poses, 1-2 miles.

Fossil Learning Lab 1:00PM – 3:00PM

Get “up-close and personal” with fossils! Join us for ranger-led demonstrations, and hands-on searches for fossils.

Sunday, May 24***Ranger Guided Interpretive Talk 10:00AM******Ranger Guided Hike 11:00AM, Petrified Forest Loop, distance 1 mile, 1 ½ hrs.******Fossil Learning Lab 1:00PM – 3:00PM***

Get “up-close and personal” with fossils! Join us for ranger-led demonstrations, and hands-on searches for fossils.

Monday, May 25***Ranger Guided Interpretive Talk 10:00AM******Ranger Guided Hike 11:00AM –on the Petrified Forest Loop, distance 1mile, 1 ½ hrs.******Fossil Learning Lab 1:00PM – 3:00PM***

Get “up-close and personal” with fossils! Join us for ranger-led demonstrations, and hands-on searches for fossils.

Saturday, May 30***Yoga Guided Hike 9:00AM – 10:30AM***

Join Ranger Denise for a unique outdoor activity – yoga along a trail hike. This program is designed for beginners and focuses on hiking and yoga poses, distance 1-2 miles.

Ranger Guided Interpretive Talk 10:00AM***Fossil Learning Lab 1:00PM – 3:00PM***

Get “up-close and personal” with fossils! Join us for ranger-led demonstrations, and hands-on searches for fossils.

Sunday, May 31***Ranger Guided Interpretive Talk 10:00AM******Ranger Guided Hike 11:00AM –on the Petrified Forest Loop, distance 1mile, 1 ½ hrs.******Fossil Learning Lab 1:00PM – 3:00PM***

Get “up-close and personal” with fossils! Join us for ranger-led demonstrations, and hands-on searches for fossils.

Florissant Fossil Beds National Monument also has 14 miles of beautiful, yet lesser known, hiking trails to explore. Earn a Junior Ranger Badge any day of the year by participating in the park’s Junior Ranger Program.

Regular park entrance fee is \$3 per adult (16 years and older) children and federal pass holders are free. Visitor Center hours are 9:00AM to 5:00PM daily (hours change to 8:00AM to 6:00PM starting May 23).

For additional information, please call (719) 748-3253 or visit our website at www.nps.gov/flfo or follow us on Facebook/FlorissantNPS.

Jeff Wolin
Lead Interpreter
Florissant Fossil Beds N.M.
(719)748-3253 Extension 202



Climate Change Institute

Florissant Fossil Beds

National Park Service
U.S. Department of the Interior

Florissant Fossil Beds
National Monument



Save the Date!

Space Limited – call now for
your registration – 748-
3253 ext. 109

2015 Climate Change Institute
June 22, 23, 24
Florissant Fossil Beds National Monument
Florissant, Colorado

The Florissant Fossil Beds National Monument and the Friends of the Florissant Fossil Beds, Inc. are pleased to host the 2015 Climate Change Institute, June 22nd through June 24th. The Institute will be based at the Florissant Fossil Beds National Monument, with off-site field trips in the Pikes Peak region.

The goal of this Institute is to give participants a working knowledge and an understanding of Climate Change. Various partners at the Institute will share their policies, issues and the ways their agencies are meeting the challenges of Climate Change.

Partners presenting during this Institute with the National Park Service are the University of Colorado Boulder, the US Forest Service, Catamount Center, Geological Society of America, CUSP, NCAR, and BLM. The various agencies and educators will present within the disciplines of Geology, Paleontology, Biology and Atmospheric Sciences. The concepts to be covered are: “What is Climate Change?”, “What is the Effect of Climate Change on Organisms?”, and “How Can the Past Inform us About Climate Change in the Present and Future?” STEM objectives are inherent in all presentations and activities.

The registration fee for the 3 day Institute is \$150.00. For members of the Friends of the Florissant Fossil Beds, the 3 day fee will be \$125.00. A daily registration fee will also be available for those who only wish to attend one day. Various presentations will also be open to the public for a small fee. Housing is available for an extra charge. Graduate credit will be available through Adams State University and/or CE credit through Pikes Peak BOCES.

For details, contact the Florissant Fossil Beds NM at 719-748-3253, ext.109
Registration will begin on April 24, 2015. Space is limited.

FIND YOUR **PARK**

Florissant Fossil Beds

National Park Service
U.S. Department of the Interior

Florissant Fossil Beds
National Monument



Summer Seminar Series 2015 and Fees

The Friends of Florissant Fossil Beds, Inc. present the 2015 Summer Seminar Series.

The Friends of Florissant Fossil Beds, Inc. offer one day seminars in a variety of geology, biology, humanities, and paleontology courses. The regular fee for each seminar is \$25.00 per person for a one -day seminar. Reduced rates are available for members of the Friends of the Florissant Fossil Beds, Inc. **Pre-Registration Is Required for all Seminars.**

Teacher Friendly Graduate Credit CDE Cert.

Teachers can earn undergraduate and graduate credit through the Division of Extended Studies of Adams State University. Adams State charges \$27.50 for a ½ graduate credit for a one -day seminar. BOCES recertification credit is available for \$15.00 for ½ credit. Undergraduate credit will also be available.

Pre-registration is required.

Friends Members and Discounts

If you are a member of the Friends of the Florissant Fossil Beds, Inc. or wish to join now the seminar fee is \$15.00 Seminar discounts are only available to current members or those who join with their seminar registration. If you are no longer a member, you may wish to renew. You can become a Friends member at www.fossilbeds.org

Schedule

Saturday, June 13	7am – 3:30pm	Birds, Their Nesting and Singing Life	Debbie Barnes
Wednesday, June 17	9am – 5pm	Discover and Create Fossils in the Classroom	Toni Ratzlaff
Wednesday, July 8	9am – 5pm	Parks Pioneers- Conservation Champions of Colorado National Parks and Monuments	John Stansfield
Sat./Sun., July 11-12	9am – 5pm	Wildflowers of the West: Botany at its Best	Doug Coleman
Thursday, July 16	9am-5pm	Mammals of Colorado	Linda Groat
Tuesday , July 21	9am -5pm	Geographic Understanding of The World Around us	Dr. Steven Jennings
Saturday, July 25	9am -5pm	Follow a Fossil: Behind the Scenes Of the Florissant Fossil Beds NM	Dr. Herb Meyer
Tuesday, July 28	9am – 5pm	GPS/Geocaching Skills	Bob Hickey
Wednesday, July 29	9am – 5pm	Project Archaeology	Linda Groat

Registration and Information

For more information about prices, logistics, registration, or any other questions, please look go to the Friend's website www.fossilbeds.org and go to the link for seminars. Online registration is available on this site. If you need to register by phone please call the Monument at (719) 748 – 3253 extension 109, or you may register by mail by printing off the registration forms and sending them to PO Box 185, Florissant, CO 80816.

Space is limited for several of the seminars. Register early...

The seminar series is sponsored by the Friends of Florissant Fossil Beds, Inc.



Thanks to the Friends

To the Friends of Florissant,

I would like to thank you for your continued support of Florissant Fossil Beds National Monument. Because of this unending support, I was able to attend the Materials and Methods in Paleontology meeting in Raleigh, NC April 14-19. At this meeting, I represented FLFO and presented my research in both a talk and a poster. These presentations were met favorably, with good responses from many involved. Presenting research at meetings is beneficial for FLFO because it not only allowed me to showcase the work being done at the Monument, and present these methods to other professionals in the field of fossil conservation and preservation, but it afforded me the opportunity to speak to these professionals and get their advice and input on my project.

Thank you again for supporting my, as well as other interns' scientific endeavors. We as a park are truly lucky to have you all!

Consolidation and Preservation

My Time at Florissant Fossil Beds National Monument

by *Elizabeth Reinthal*

My name is Lizzie Reinthal, and I have been a GeoCorps Intern at the Monument since October 2014. After 7 months here in Colorado, my tenure as an intern has drawn to a close. This article will do its best to articulate all that I have done at the Monument.

To try and describe my experience at FLFO as merely the word 'intern' is doing a disservice to the GeoCorps – Geoscientists in Parks program. The word 'intern' for most circles conjures up someone who works in an office, makes copies, and runs errands. At Florissant, I was a researcher, a photographer, a preparator, a conservator, a scientist. I attended conferences and did fieldwork. I tested out software, offered guidance and in turn received direction when I needed it most.

The most relevant and important work I did while a part of the lab at FLFO attempted to answer these questions: What do you do when the fossiliferous shale at FLFO starts to fall apart, and how do you prevent it from falling apart in the first place? These inquiries were truly my driving force. Answering these questions resulted in two main foci of my research.

First, I wanted to see how the paper shale at Florissant responded to changes in humidity. The data loggers in the collections area of the Monument showed that the relative humidity (RH) fluctuated drastically throughout the year, going as low as 3% RH and going as high as 36%. Stabilizing the RH as well as the temperature would mitigate further damage on the specimens. Through my experiments, I found that the 'sweet spot' for keeping the shale sta-



Observing and documenting the effects of humidity on shale.

ble and relatively damage-free was 30-35%. At 25% RH and below, flaking and delamination occurred. From this, I am concluding that the collections area should be maintained at a relatively constant humidity and temperature year-round, and that changes must be made to the collections area to preserve the fossil collections so they can be used and enjoyed by future generations.

Second, I explored the effects that various consolidants and solvents had upon the shale. I found that reversibility was essentially impossible, considering the delicate nature and fragility of many of the specimens. Though, for future work concerning the stabilization and preparation of the specimens, the best consolidants and adhesives to use were B-72 (an acrylic polymer emulsion) and Aron Alpha (a cyanoacrylate similar to superglue).



Prepping a fossil leaf.

At the conclusion of my research, I gave both a talk and a poster presentation on my work at the Association for Methods and Materials in Paleontology symposium in Raleigh, NC. This conference not only allowed me to showcase the work I had done at Florissant Fossil Beds for the past several months, but also gave me the opportunity to interact with other professionals in the field and get their input and

suggestions.

Overall, it has been a stunning and memorable experience working alongside the Park Service. Thank you to everyone who made it great, and I look forward to continuing my study of paleontology both in the park and beyond.



Applying solvent to shale and recording reaction.