



Friends Board Members

Jeff Brandt

Treasurer

Patty Glatfelter

President

Wayne Johnston

Web Master

Harold Kaelin

Linda Laverty

Membership

Sally Maertens

Vice-President

Jerry McLain

Katie Dehlin

Jeff Proper

Robyn Proper

Jean Rodeck

Member Emeritus

John Schwabe

Project Coordinator

Wendie Warner

Secretary

Gary Censoplano

Troy Ruiz

Newsletter

Friends of the Florissant Fossil Beds eNewsletter

Every Fossil Needs a Friend

#39—October 2018

Plein Air in the Park - October 6th & 7th 2018

It was one of those anticipated early autumn mornings when a light sweater is comforting. The Florissant Valley, slightly hazy, had a soft pastel look. Could it be misty ground fog from last evening's showers or was it lingering smoke from wild-fires in the West? No matter, the morning was magical. There were ever changing blended colors with a few high clouds in thin ribbons providing visual interest. It was just great conditions to paint.

The merry band with backpacks, a cart and wagon in tow quickly proceeded to the Visitor Center to show their National Park passes. The artists proceeded to a selected location along the Boulder Creek Trail with a meadow edge surrounded by mature ponderosa pines and a Pikes Peak view. This pretty place, where light filtered on the gray and cinnamon pine trunks stood in grasses that had a straw and mixed green look.



Terry Sanchez

It took twenty minutes of wandering for the artist to pick that "just so" spot. Is the spot a horizontal or vertical view? Does it have too much light and lacks shadows or are there too many trees? In the artist's view they know when it's good and it is theirs. Like tents in a campground the artist's art boxes pop up on tripods and a morning of Plein Air painting has begun.



Wayne Johnston

"It took twenty minutes of wandering for the artist to pick that 'just so' spot."

Quickly sketching, each artist knows their pace and finishes their sketch. Paint and brushes are now working-mixing colors and starting the first bold strokes. Their thoughts are racing with focus and excitement. They wonder “what can I do in a couple of hours”? I planned on painting but I watched the others. I saw their expressions and the backward steps to see what they had done.

These artists are preparing for the Friends of the Florissant Fossil Beds Annual Fine Art Show and Sale on Saturday October 6th and Sunday October 7th 9 am to 5 pm. The artists have a lot of paintings to get completed and they will. The event is the Friends primary fundraiser for the year. If unfamiliar with the Friends of Florissant Fossil Beds, we are a nonprofit 501c3 established in 1984 to support the mission of Florissant Fossil Beds National Monument.

Each year the National Park Service staff strategically identifies critical projects that cannot be funded in the current budget. Currently the Friends are raising matching funds for the restoration of the Fowler Education Building to restore the water system, sewage system and provide disability accessibility. It will be suitable for school groups, educational seminars, elk walks, visiting field crews and researchers. The Friends also serve as National Park Service volunteers representing the NPS at community events and special celebrations at the Monument.

The artists eventually needed to finish, pack up and hike back to the parking lot. Puffy, churning thunder clouds were viewed to the north, catching light, ever changing white, dark gray, then white again. All of us stopped to view and take pictures in our minds eye. Thinking...maybe another time.

Article written by John Schwabe



Jared Brady



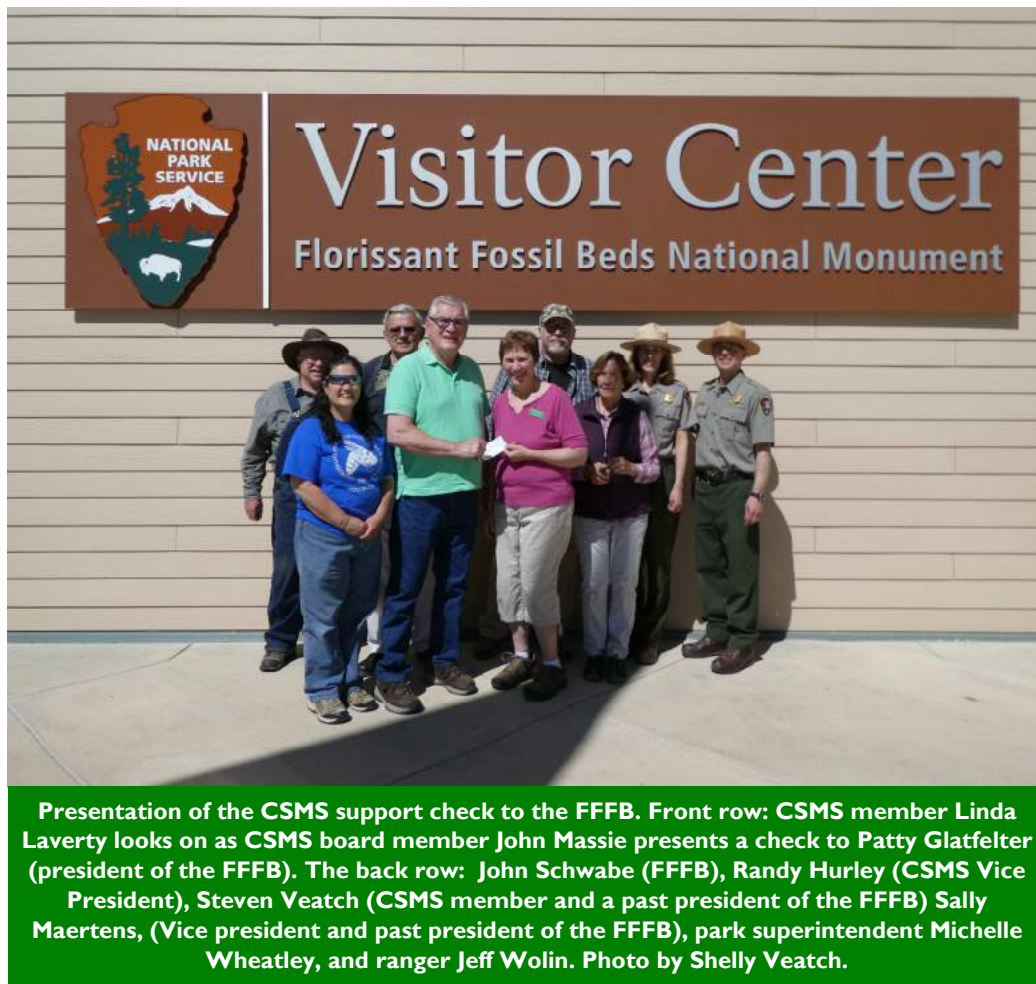
Julie Cutter

Colorado Springs Mineralogical Society Contributes Support for Summer Interns at Florissant Fossil Beds National Monument

For more than a decade the Colorado Springs Mineralogical Society (CSMS) has assisted in the indirect support for one or more interns at the Florissant Fossil Beds National Monument. On June 8, 2018, Patty Glatfelter, President of the Friends of the Florissant Fossil Beds (FFFB), received the 2018 support check from CSMS board member John Massie in front of the park's visitor center. The FFFB administers the donated funds on behalf of the interns and the national monument. The funding has enabled interns to attend professional society meetings where they present talks and posters about their projects on Florissant paleontology.

These college-age interns perform essential work in the fields of paleontology or geology in one of the most beautiful national parks in the Rocky Mountains. This internship also provides valuable experience for each intern. The internship lasts during the summer.

Article written by Steven Wade Veatch



October 2018 FLFO Activities & Events

Activities Planned at Florissant Fossil Beds National Monument in October

Florissant Fossil Beds National Monument is open year-round. During October, the Monument is open daily
9:00 AM – 5:00 PM.

Weekly Programs:

Yoga Hikes, Mondays October 1 and October 8, 10:00 AM – 11:30 AM. Join a certified yoga instructor and a Park Ranger for a 1 hour and 15 minute, 1 mile yoga hike. This will be a hike interspersed with standing yoga poses. This program is geared for beginner to intermediate yoga enthusiasts. Meet at the visitor center.

Special Events:

Fine Art Show and Sale, Saturday and Sunday, October 6 & 7, 9:00 AM – 5:00 PM. Help support the Friends of the Florissant Fossil Beds by attending the 3rd Annual Art Show Fundraiser. Landscapes, wildlife, and western art will be on display and for sale. Children can draw their own landscape scenes with sidewalk chalk from 11:00 AM – 1:00 PM each day. Plein Air art demonstrations will take place throughout the day.

National Fossil Day Celebration, Sunday, October 14, 10:00 AM – 3:00 PM. Celebrate National Fossil Day with story time, fossil crafts, and a scavenger hunt. Earn a Junior Paleontologist badge by completing the Junior Paleontologist activity book.

Elk Hikes (RESERVATION ONLY), October 5-7, 4:45 PM – 7:15 PM and 13 & 14, 4:30 PM – 7:00 PM. Join a ranger for a RESERVATION ONLY evening hike, to listen to the magical sounds of elk bugling. These are 1-2 mile, off-trail hikes and can be in rugged terrain at times. Children must be at least 10 years old to attend. For reservations, please call (719) 748 – 3253 ext. 202.

Night Sky Program, October 12, 7:30 PM – 10:00 PM. Join park staff and members of the Colorado Springs Astronomical Society to gaze at the dark skies above Florissant Fossil Beds in search of planets, galaxies, nebulas, and more. Meet at the visitor center.

There are no additional fees for any park programs beyond the daily entrance fee of \$7.00 per adult (15 and younger are free). Florissant Fossil Beds National Monument offers 15 miles of beautiful, yet lesser known, hiking trails to explore, a free Junior Ranger Program, three short self-guided trails, a park video and museum exhibits, and bookstore. For additional information, please call (719) 748-3253 or visit our website:

www.nps.gov/flfo or on Facebook or Twitter at /FlorissantNPS

About the National Park Service: More than 20,000 National Park Service employees care for America's 417 national parks and work with communities across the nation to help preserve local history and create close-to-home recreational opportunities. Learn more at www.nps.gov

Grape Creek

Florissant, Colorado

By Steven Wade Veatch

Rippling over small round rocks
in the chilled afternoon light
of Spring's sunshine
the cold creek flows—
core of everything.

It exists against the odds
surrounded by green grass
lush from winter snows.

Twisting and turning like ribbon
it whorls into wonder where
birds splash, dip, flick, and flutter.
In casual poses, they gossip gamely
delivering their news.

The water moves beyond the birds
free across acres of time, and
releases me from disfiguring cities
and heaps of numbing concrete.



Grape Creek
flowing
through the
Florissant
Fossil Beds
National
Monument.
Photo by
S.W. Veatch
2018.



Another successful yoga season at Florissant Fossil Beds!

Due to popular demand, yoga hikes will continue into October this year. Yoga hikes are open to everyone! Yoga hikes include hiking 1-2 miles and standing poses. They are led by a certified yoga instructor paid for by the Friends of the Florissant Fossil Beds.

Starting at 10 AM and ending at 11:30 AM in October, hikes are available on Monday morning, Oct. 1st and Oct. 8th.

Landscapes - Wildlife - Western Art

Friends of Florissant Fossil Beds Presents
3rd Annual Fundraiser

Fine Art Show & Sale

Saturday & Sunday

October 6 & 7, 2018

9:00 am - 5:00 pm

**LOCATION: Florissant Fossil Beds
National Monument Visitor Center**

**Childrens activities
Plein Air demonstrations**

**Park fee \$7.00 per adult
(15 and younger are free)**

**Featuring Acclaimed Artist
Terri Sanchez**

**More info:
www.fossilbeds.org**

"Golden Splendor" Original Oil Painting by Terri Sanchez



Support the Friends When You Shop Amazon

Do you shop on Amazon? Did you know you can support the Friends of the Florissant Fossil Beds with little effort and without any additional cost to you? Just follow these simple steps:

- 1.) Got to smile.amazon.com
- 2.) Enter your standard Amazon username and login and then click the “Accounts & Lists” tab in the upper right-hand corner.
- 3.) After you click, a drop-down menu will appear. In this drop down menu, click “Your AmazonSmile” and then select your charity.
- 4.) To find us, simply type in “Friends of the Florissant Fossil Beds Inc” in the search bar and then click the “Select” button when the name appears in the results bar.
- 5.) Once you’ve selected Friends of the Florissant Fossil Beds, be sure to bookmark your link with “smile.amazon.com” at the beginning of the URL and shop from this link. If you do not shop from this bookmarked link, Amazon does not make a contribution to your selected organization.

Thank you for your support!



Number 9 of the Geologic Bulletin Series, 2017 – Page 1

Florissant Fossil Beds Paleontology Program

National Park Service
U.S. Department of the Interior

Florissant Fossil Beds
National Monument
Colorado



The paleontology staff at Florissant Fossil Beds National Monument includes a paleontologist, a museum technician, and several interns. These specialists monitor fossil sites around the monument, curate fossils in the on-site museum, and work with scientists at other institutions to conduct research about Florissant.

Is anyone still digging for fossils?

Researchers from various institutions have dug for fossils at Florissant. Currently, excavations are limited because there is not enough room in the monument museum for more fossils. The most recent large dig occurred over the summers of 2009 and 2010, as part of a master's thesis. Other research has led to small digs more recently. Any excavation on National Park Service land requires a permit.



A paleontology intern splits shale.

Keeping an Eye on the Fossils

Paleontology staff have monitored the stumps and other geologic resources in the park every summer since 1992. They photograph each site from specific angles and compare photographs from different years to determine how the site has changed. An evaluation form for each site quantifies disturbances such as erosion, animal burrows, research excavations, and theft. In general, most sites change very little in a year and theft is rare, but it is important to continue monitoring the resources to ensure that adequate protection measures are in place to preserve the monument's resources.

Where are all the excavated fossils?

The paleontology lab in the visitor center building includes a room for museum collections. More than ten thousand objects are cataloged in the museum, and most of these are plant or insect fossils. Other museums across the U.S. and U.K. hold tens of thousands more Florissant fossils, which were collected before the site was protected as a national monument.

Conserving Fragile Fossils

Paleontology staff conduct ongoing and pioneering experiments to find better ways to care for Florissant fossils.

Petrified Wood

Paleontology staff regularly monitor the stumps behind the visitor center. These fossils were shattered when they were historically excavated with dynamite. The monument has worked to stabilize the stumps with metal retaining bands and overhead shelters. New projects are ongoing with the University of Pennsylvania to test stone conservation techniques on the most fragile stumps.



Metal bands are installed around cracked stumps.

Paper Shale

The shale containing Florissant fossils consists of paper-thin layers of ash, clay, and microorganisms called diatoms. The shale splits, flakes, and cracks with temperature and humidity changes or contact with chemicals. Paleontology staff are studying ways to repair and prevent damage to the shale fossils in the monument collections. They also monitor the environmental conditions where fossils are stored.



Number 9 of the Geologic Bulletin Series, 2017 – Page 2



Fossils are cushioned in a small box with foam.



Fossils are photographed to create digital database records.



Fossils are placed in drawers organized by the place where they were collected. The museum will keep these specimens permanently, so that researchers can make new discoveries from Florissant fossils and check the quality of earlier scientific work on them.

What happens to the fossils after excavation?

Fossil specimens easily break or become lost if they are not properly maintained. Museum staff at Florissant Fossil Beds National Monument record, photograph, and permanently store each fossil collected in the monument. Some fossils in the collections are prepared and studied for scientific research.

3 Preparation

When shale is split to reveal a fossil, often parts of the shale still cover the edges of the specimen. Paleontology preparators (people trained to care for fossils) use needle-like tools to pick the shale away, revealing the fossil underneath. The antennae (shown by arrows) of this fossil insect (FLFO-9817) were hidden before preparation (left) but visible afterwards (right).



What kinds of research happen at Florissant?

Research generates scientifically credible information for public outreach and visitor understanding. Scientists have studied Florissant fossil beds for more than 140 years, and several students have written master's theses about the site. Paleontology staff collaborate with universities, museums, and other institutions to coordinate research activities like digging fossils, loaning specimens, or sharing database information.

How does Florissant help other geologic sites?

Florissant Fossil Beds National Monument supports national and international efforts to conserve geologic heritage. The paleontology program and Friends group for the monument have partnered with El Bosque Petrificado Piedra Chamana (The Petrified Forest Piedra Chamana) in the Andes Mountains near Sexi, Peru, to help this "sister park" protect and educate about its fossils. Like Florissant, Sexi captures a snapshot of the Eocene, tens of millions of years ago, when the climate was more tropical than it is today. Florissant promotes sustainable geotourism at Sexi and in Colorado. The monument is the first stop on the Gold Belt Tour National Scenic Byway, a route through geologic sites with cultural and scenic value.



A petrified log near Sexi, Peru.

What are the public benefits of a paleo program?

The paleontology program at Florissant Fossil Beds develops educational materials to increase visitor understanding through a variety of media. For example, the site bulletin you are reading is one of a series made by the paleontology staff with funding from visitor fees! Paleontology staff designed content for the indoor exhibits and created the guide and waysigns for the Geologic Trail. The program also coordinated a public online database with images of the several thousand Florissant fossils that have been included in scientific publications. In addition, the monument's paleontologist has written several books, such as *The Fossils of Florissant*. These works help a general audience learn about the human and geologic history of the fossil beds.



Number 9 of the geologic bulletin series, 2017. Download at www.nps.gov/flfo

EXPERIENCE YOUR AMERICA™



Number 10 of the Geologic Bulletin Series, 2017 – Page 1

Florissant Fossil Beds History of Science and Land Use

National Park Service
U.S. Department of the Interior
Florissant Fossil Beds
National Monument
Colorado



The modern history behind Florissant Fossil Beds National Monument spans a century and a half. This history has involved many influential players—tribes, homesteaders, ranchers, scientists, developers, activists, politicians, and lawyers—who have helped settle, study, and preserve this place.

History of Scientific Discovery

Florissant Fossil Beds National Monument was established to research, preserve, and interpret the excellently preserved insect and plant fossils and geologic sites at the Florissant lakebeds. Our knowledge about the importance of Florissant's fossils follows from decades of scientific research. Beginning in the 1870s, Samuel Scudder described more than 600 species of fossil insects while Leo Lesquereux studied the first fossil plants and E.D. Cope described the fossil fish. In the early 1900s, T.D.A. Cockerell excavated and described additional species of fossil insects, plants, and mollusks. Harry MacGinitie (center photograph above) made important excavations and revised the fossil plants beginning in the 1930s. In the decades that followed, other scientists have expanded our knowledge about fossil pollen, mammals, paleoclimate, and paleoelevation. Scientific research is still a leading objective at Florissant, and the monument's paleontology and interpretive divisions work to make this knowledge accessible to promote public understanding for people ranging from school kids to professional scientists.



History of Land Use

Prior to settlement of the West, Native Americans hunted and gathered food in the Florissant valley for thousands of years. Homesteaders filed claims with the government to settle and eventually own public land in the 1870s. One of the homesteaders, Charlotte Hill, helped collect fossils from her land for scientists.

Two of the properties within Florissant's petrified forest have transferred ownership several times. The area of the Hill homestead, including the Big Stump, first sold to members of the Colorado Museum Association, which included Charlotte's brother John Coplen. They attempted to cut the Big Stump into pieces to send it east for the World's Fair in Chicago in 1893. Coplen later assumed full ownership in the early 1920s and developed the Coplen Petrified Forest as a tourist attraction. Later, it was sold to the Singer family, in 1927, operating as the Colorado Petrified Forest for more than 40 years.

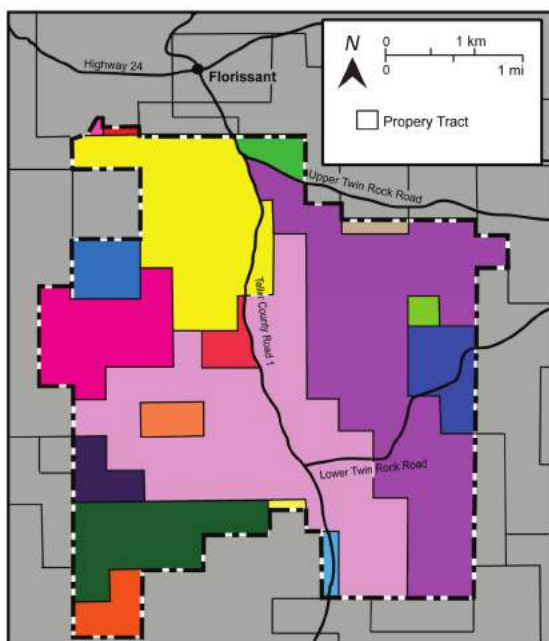
The area near the petrified Redwood Trio has a similar history. In the early 1920s, the Henderson family discovered and excavated more stumps and developed the Henderson Petrified Forest. This was later purchased by John Baker, who changed the name to the Pike Petrified Forest.

In the 1960s, some land owners sold to developers who wanted to subdivide and sell the property. Other land owners, such as the Singer family, were concerned about the theft of petrified wood and wanted to sell their property to the federal government to protect the stumps and other fossils. These events led to a fiery court battle in 1969 that culminated in the establishment of the national monument.



Charlotte Hill, a Florissant homesteader, collected fossils for scientists.

Number 10 of the Geologic Bulletin Series, 2017 – Page 2



Eighteen parcels of land were incorporated into the national monument.



The women who led a grassroots campaign to protect Florissant fossil beds from development: Dr. Estella Leopold, Dr. Betty Willard, and Vim Wright (left to right). This picture was taken at the 25th anniversary of the monument, in 1994.

How did the fossil beds become a national monument?

The National Park Service developed the first proposal for a national monument in 1962, and Congress drafted the first bills beginning in 1964. As interest in Congress increased through 1969, real estate developers rushed in to buy the proposed park property in hopes of turning a quick profit. Dr. Estella Leopold, daughter of the pioneering conservationist Aldo Leopold, caught wind of the brewing battle with developers. She had studied Florissant's fossil pollen and recognized that the priceless natural resource had to be safeguarded. As the situation came to a head in 1969, she was joined by Dr. Betty Willard and other concerned citizens. They established the Defenders of Florissant to rally against the developers, and hired lawyers Victor Yannacone of New York and Richard Lamm of Colorado.

In July of 1969, the Defenders of Florissant and their legal team went to court against the land developers, who had already hired bulldozers to begin development. As time was running short, environmental activist Vim Wright took a group of women to Florissant, ready to sit in front of the bulldozers. That same day, Yannacone succeeded in convincing the court to place a temporary restraining order to halt construction, which allowed Congress more time to act. In the days that followed, both the House and Senate passed bills to create the national monument. On August 20, 1969 the bill was signed by President Nixon. Yannacone's successful arguments to the court for protection of the Florissant fossil beds established one of the first landmark environmental cases in the United States, and he is considered one of the founders of environmental law.

The government purchased land from 18 private owners over the following five years to create the monument. The small museum on Baker's former property was operated as a visitor center for many years, until funding finally became available for a new visitor and research center, which opened in 2013. The new facility provides storage for fossil collections and exhibits for the public.



The original visitor center at Florissant Fossil Beds National Monument was previously part of the Baker property. The current Visitor Center and Paleontology Lab was built on the same footprint in 2013.

