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Newsletter

# Friends of the Florissant Fossil Beds

## December 2023 eNewsletter



Mother Nature has gifted the Fossil Beds with a stunning array of natural beauty that is graced with seasonal changes that continually surprise and delight.

The Florissant Fossil Beds National Monument offers every visitor an opportunity for exploration and enjoyment. A place where insights can be found and calm rediscovered.

Mother Nature is unable to do all the required work on her own. She is dependent on all of those that contribute to the preservation and protection of her natural gift.

She, and all of us, extend our utmost gratitude to the Monument staff and volunteers that help keep her gift accessible to all.

You all do wonderful work.

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## Meet A Member Patty Glatfelter

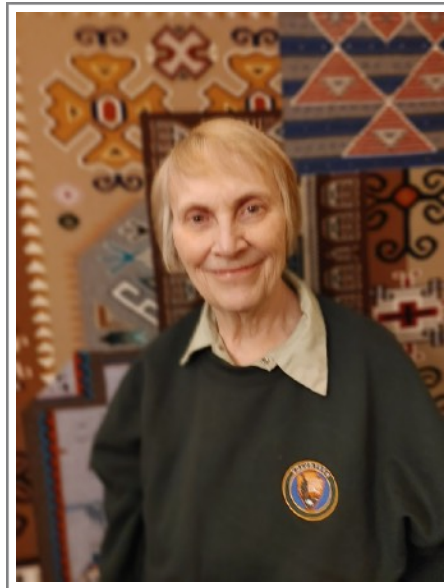
I began my relationship with Florissant Fossil Beds in 2008 when my husband John and I retired in Colorado. It started with my walks on Monument trails to adjust to the altitude change. The frequent trips built a relationship with park staff, particularly with Ranger Jeff Wolin. I asked Ranger Jeff if there was any need for volunteers to help in any way. He signed me up immediately and began the training to assist with visitor service at the front desk. This great opportunity to learn and serve helped me settle into my new community. The entire staff welcomed me and trained me in all the necessary skills.

In a very few months Sally McCracken convinced me to join the Friends of the Florissant Fossil Beds board with very little arm twisting. My previous career as a physical therapist had not prepared me for the paleo/geological education that is helpful in these various roles, but it was an exciting new chapter. The service I could offer to visitors and the fundraising I could help accomplish in these roles added a new sense of purpose to my life. It also rapidly educated me in all things wonderful in our Pikes Peak region.

The Florissant Fossil Beds offers educational opportunities for all age groups and all educational levels. It provides lessons in paleobotany, ancient geology, climate change in the distant past, Native American cultural contributions and the modern social impacts of women in the West. Because we host so many school groups, we have the ability to impact the future of the Monument, the National Park Service and the ongoing protection of our natural world. Our graduate students provide new discoveries and enhance our offerings.

One challenge we face as Friends of the Fossil Beds, is developing enough financial support to fill the unfunded needs of the Monument. We have been fortunate to have donor support to continue a robust post-graduate researcher and intern program. These researchers lay the groundwork for future discoveries and preservation techniques. We also supply material resources for youth and visitor-enhanced experiences. As a Colorado native, it has been exciting and an honor to participate in all these worthwhile endeavors.

Join me in this fun, educational and worthwhile mission!





## In Memory of Ric Bradley, the first President of the Friend's 1922 - 2023



Richard Bradley, 101 years old, passed away on October 28, 2023. Born on May 14, 1922, in Chicago, Illinois, he grew up in a large family in Madison, Wisconsin. He graduated from Dartmouth College, enlisting in the navy immediately afterwards where he was assigned to work on the Manhattan Project in Oak Ridge, Tennessee. He later requested a transfer to the U.S. Pacific fleet.

Ric met Dorothy Holden in Madison after WWII and the two were married in 1947. After receiving his PhD from the University of California at Berkeley,

Ric taught physics at Cornell Univ. and then at his beloved Colorado College where he also served as dean. Ric was a mentor to countless CC colleagues and students. He encouraged them to ski, backpack, sing, climb mountains, become environmental stewards, and to love physics. Ric sang tenor with the Colorado Springs Chorale for many decades, composed music, and was an amateur painter.

Ric is survived by 4 children, 8 grandchildren, and 8 great-grandchildren.

In remembrance of Ric Bradley's life, the family asks that any charitable donations be made to the Colorado Springs Chorale at [www.cschorale.org](http://www.cschorale.org) donate or Toki Rapanui at [www.tokirapanui.org](http://www.tokirapanui.org) which is his granddaughter Mahani Teave's music school on Easter Island.

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## In Memory of Ric Bradley, the first President of the Friend's 1922 - 2023



Dad's obituary might help. I'm attaching it. I know little about the Florissant battle except that Estella Leopold drew my parents in and told Mom to "lie down in front of bulldozers." (Laughable knowing my prim Mom who fought her battles with endless newspaper articles and phone calls).

I can tell you more about the battles fought while I was growing up.

Dad was one of the 7 sons of Sierra Club president Harold Bradley and grandson of a charter member of the same club. All the sons were excellent skiers, ski jumpers, sailors, and serious backpackers. When Dad's brother Steve, a kayaker, sounded the alarm that the Bureau of Reclamation planned to put a dam in (supposedly protected) Dinosaur Ntl Monument, Harold mobilized the Sierra Club and his sons which included 2 geologists and a physicist. This

was the first time an outdoors club had ever taken on the US government. The controversy of Dad's effective activism put his jobs at risk at both Cornell Univ and Colorado College but the latter's President, Louis Benezet, made the decision to support Dad's right to fight over loss of some threatened monetary gifts, thus shaping Colorado College's future and Dad's participation in the Glen Canyon and Grand Canyon battles and my parents' environmental activities in the Colo Spgs area which continued for the rest of their lives.

At 83 Dad rafted the Grand Canyon which had been saved in part by his articles that drew a million letters to Congress opposing the dams. At 87 he stopped skiing because Mom was sick. He is credited with the unparalleled feat of finding - alive and unscathed - an avalanche victim who had been swept 220 feet and was completely buried. Dad used a pair of sunglasses on the surface to select his search area. While in his 80s Dad participated in the rescue of 11 family members caught in flooding Coyote Canyon. He tied BOWLINE KNOTS so the people could be pulled over the canyon wall and the rope released - FAST - without tightening.

*Helen Williams  
Daughter of Ric Bradley*

## Meet Our Partners

### Pikes Peak Historical Society Museum

- John Rakowski, President of Pikes Peak Historical Society -

#### Pikes Peak Historical Society Museum

18022 CR 1, PO Box 823

Florissant, CO 80816

(719)748-8259



The PPHS Museum owns its 2200 square foot building and is entirely run by volunteers and donations as a 501(c-3) non-profit. Summer hours (Memorial Day to Labor Day) are noon to 4pm Fri/Sat/Sun. Hours during the rest of the year are 1-4pm Sat/Sun Sept/Oct and Apr/May but closed Nov-Mar. Openings by appointment are available year round.

The Pikes Peak Historical Society Museum is proud to own and display the two largest euhedral (external crystal faces) smoky quartz crystals found in North America. They weigh 439 and 345 pounds respectively and are each about four feet long. These were recovered from a mining claim six miles north of the museum in 2002. PPHS acquired these by a combination of donation by the finder and a cash donation by the Cripple Creek and Victor mine.





## Meet Our Partners

### Pikes Peak Historical Society Museum

- John Rakowski, President of Pikes Peak Historical Society -

PPHS displays the 1888 wedding dress of Atlanta (Attie) Long Thompson, an early pioneer in the area south of Florissant in what is now the Florissant Fossil Beds National Monument. Although it was a wedding dress, it was not white but a neutral color to enable it to be worn for other fancy occasions. Attie wrote an autobiography of her early life "DAUGHTER OF A PIONEER" which is, a fascinating story of the challenges of life in the mountain area in the late 1800's.

The dress was donated by the family who visit our museum occasionally.



Informational presentations called "Chautauqua's" are provided on a variety of historical or scientific topics from four to six times a year with admission free to the public. These are hosted at the Lake George Charter School Gym on US 24 on the east side of Lake George about 4 miles west of Florissant.

PPHS also owns and manages the Teacherage Museum next to the 1880's Florissant Schoolhouse now owned by the Grange. The Teacherage was the residence for one or two teachers at the school.

PPHS is the Trustee for the Florissant Pioneer Cemetery on Upper Twin Rocks Road about 0.6 miles east of CR 1. We manage and maintain the cemetery. Burials may still be arranged there for residents of Florissant.

PPHS is responsible for having placed the stone FLORISSANT signs east, west and south of town as well as maintenance of the informational kiosk on US 24 on the east side of Florissant.



## Summer Astronomy

### Florissant Fossil Beds Night Sky

- Mark Harter, FLFO Volunteer Ranger, Astronomy Lead -

December 2023

This has been an exciting Fall for astronomy and night sky viewing at the Florissant Fossil Beds (FLFO) National Monument! For starters, we had three very clear fall nights (September, October, November) of public viewing with 10 telescopes each night from the Colorado Springs Astronomical Society (CSASTRO), during which almost 500 visitors enjoyed seeing the heavens. Fall is always exciting because the skies are clearer (less humidity, less fire smoke, cooler temperatures). During these events we observed planets (Jupiter, Saturn, Venus), nebulae (Lagoon, Ring, Orion), galaxies (Andromeda, Large Magellanic), lots of meteors (from the Orionids and Leonids), several StarLink chains, and of course plenty of satellites including the International Space Station fly-by (always a crowd pleaser).

We closed out the FLFO astronomy year with a record number of visitors to our Night Sky Programs. Our goal at the beginning of the year was 1000 guests, and we reached 1,087 visitors. This is despite having only 7 Night Sky programs (5 were cancelled due to weather). Now we wrap up 2023 by taking final dark sky meter measurements, and writing the annual FLFO report for International Dark Sky Association (IDSA) so FLFO can maintain its International Dark Sky Park certification. We look forward to another exciting astronomy year in 2024 at FLFO!

As a Fall bonus, there was a major daylight astronomical event on October 14 with the Annular Eclipse, which was about 80% totality in Teller County. Did any of you see it? Some of us had ambition and drove down to the Four Corners area to see the 100% totality path. It's always neat to observe astronomical events in the culturally rich region of Mesa Verde, Cortez, and Chaco Canyon NM. These ancient Puebloans studied the stars as far back as 850 AD and made their own astronomy observatory atop the large flat top mesa Fajada Butte in Chaco Canyon, NM (another dark sky park). They studied the heavens and designed a fascinating 'sun dagger' astronomical clock that indicates the annual solstices and equinoxes which they no doubt used for agriculture, planting, harvest, and spiritual ceremonies.

## Summer Astronomy

### Florissant Fossil Beds Night Sky

- Mark Harter, FLFO Volunteer Ranger, Astronomy Lead -

December 2023

These people also left rock art recordings of major historical astronomical events in the form of petroglyphs (carvings in rocks) and pictographs (paintings on rocks), including Halley's Comet and the Crab Nebula which is a result of a supernova explosion in 1054 AD. Yes, these astronomical events are recorded in the rocks of Chaco Canyon and Mesa Verde, and if you have a chance you should go visit them! On the night of the Annular Eclipse, I had the good fortune of capturing a good astrophotography image of what the ancient peoples of Chaco Canyon may have seen looking up at the dark skies above their sun dagger petroglyph atop Fajada Butte. Of course, the Chaco Canyon people a thousand years ago wouldn't have seen 4 satellites in the image, which is an indication of how busy and crowded our night skies are becoming. (see pic next page)

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Mark Harter is a Florissant resident, and as a FLFO Volunteer Ranger leads the FLFO astronomy events. He is a retired military Veteran (Air Force), and is an Aerospace Engineer at the United States Space Force.

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See image next page



## Summer Astronomy

### Florissant Fossil Beds Night Sky

- Mark Harter, FLFO Volunteer Ranger, Astronomy Lead -





# Rocky Mountain Conservancy Bookstore Report

- Linda Dolvan -

The Rocky Mountain Conservancy is a non-profit organization that offers interpretative merchandise sales at locations in Colorado and Wyoming including our Fossil Beds National Monument Bookstore. The conservancy returns a percentage of the revenue to the host bookstore as direct financial aid. Wild Tribute, one of our suppliers of our tee shirts also returns a 4 percent of the sales of their merchandise back to the parks from each sale.

Over the hills and into the woods to the Fossil Beds Bookstore you must go! This holiday season is the bright time and the right time for shopping, we know. The decorations are completed, the music will be playing, and all the merchandise will be waiting to brighten each child and adult with items to make their day.

The little bookstore is filled with stuffies, mini block animals to build, games, books, toy ranger trucks, puzzles and more. We have finger puppets galore and a new assortment of beautiful hand puppets of various animals and pricing. These two items are displayed on awesome hand-crafted exhibits made by our great volunteer and friend, Stu Ferguson! Thank you, Stu, for all you do for our monument and our bookstore.



# Rocky Mountain Conservancy Bookstore Report

- Linda Dolvan -

We stock Dr. Meyer's books: Fossils of Florissant and Saved in Time. We also have his recommendations: *The Language of Butterflies* written by Wendy Williams. It has a nice article about the Fossil Bed's butterflies in chapter 3. *The Big Flat* which is a Bud Wobus story concerning "what has changed from Colorado Springs to South Park across Colorado's subalpine erosion surface." Bud states that this is just his story and not intended to be a best seller.

We stock geology, field guidebooks: Birds, Wildflowers, Fish, Trees and Scats and Tracks. We also have tee shirts, sweatshirts, stickers, passport books, post cards magnets.

We also offer nice reasonably priced hickory hiking sticks, Doc Susie's, *Edible and Medicinal Plants of the Rockies* and even a book of *Ghost Stories of the Rockies*.

The bookstore is very well stocked but will not be receiving any new merchandise until after the New year. Supplies of certain items are limited but our prices are amazing.

The entire staff of the Monument wish you all a wonderful holiday season. Please stop in to see us and all the wonderful merchandise the Florissant Fossil Beds Bookstore has to offer. Thank you so much for your support.

I wish you safe and happy holidays.

-Linda Dolvan -





## Upcoming Event

### Great Backyard Bird Count

- Sally McCracken -

Come and join us at the Florissant Fossil Beds NM on Saturday, February 17, 2024 to participate in the annual Great Backyard Bird Count from 9 AM to 1 PM. We will have bird walks for doing the counting and other activities for participants, families and kids!

**February**

**17**

The GBBC is a citizen science global event held each year in February. For four days, people around the world unite to observe, learn about, count, and celebrate birds. The data collected during the 4 days is used by scientists around the world to track migrating habits, the effects of climate change on bird species and to understand their populations health. This year, the event runs from Friday, February 16<sup>th</sup> through Monday, February 19<sup>th</sup>.

During the count in February of this year, over 555,291 people participated in the count from over 202 countries. 7,538 species of birds were identified which is 2/3 the number of known species of birds. (11,188) The United States had the largest number of checklists submitted followed by India and Canada. Over 90.000.000 birds were counted.

Come and join us Saturday, February 17<sup>th</sup> for a very important citizen science event and learn many interesting things about birds. Check the following web sites for more information about this global event: [eBird.org](http://eBird.org) and/or [BirdCount.org](http://BirdCount.org).





## Friends Annual Meeting

- Sally McCracken -

Every year in late summer or early fall, the Friends of the Florissant Fossil Beds holds its Annual Membership Meeting. The purpose for the meeting is both business and pleasure. Each year we present a brief picture financially and review what our support for the Monument has been during the year. We also have a main speaker who presents some aspect of the Fossil Beds. We also present the annual Visitor Service Award. Lastly, we vote for the members of the Friend's Board for the coming year.

This year unfortunately, an ill-timed snowstorm forced us to cancel the meeting for the safety of people coming from many areas of the region. We apologize to those members who arrived at the Monument only to find that the event had been cancelled. Our main speaker, John Wright , was coming from Denver and the roads there were very bad. At that time, we had no way of reaching our membership on quick notice. It was the first time that we ever had to cancel an event so quickly. We are working right now on correcting that situation so that hopefully in the future we will be able to notify people in a timely fashion.

We would like to announce that Amanda Miller, a seasonal ranger, received the Visitor Service Award for 2023. It is the third time that Amanda has received that award. All nominations for her were glowing tributes to her amazing ability to help any and everywhere visitors are concerned. We are hoping to have a special luncheon for her at the Monument to recognize her accomplishment.



# The Florissant Fossil Beds, Colorado: A Place of Change

by Steven Wade Veatch

In 1965—when I was a boy—I picked up a chunk of petrified wood (about 34 million years old, or Late Eocene age) at the Florissant Fossil Beds and wondered how it was formed. This simple act changed my life: it started me on my lifelong hobby of collecting rocks, minerals, and fossils, and later influenced my decision to study science at college. Both were big and long-lasting changes in my life.



*Steven Veatch (11 years old) and his brother Greg Veatch (4 years old) sitting at the Big Stump at the fossil beds in 1965. This was when the park was a private tourist enterprise.*



# The Florissant Fossil Beds, Colorado: A Place of Change

by Steven Wade Veatch

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Years later, I experienced another transforming moment—meeting legendary scientist Estella Leopold at the fossil beds. On that special day, Estella and I ambled along the trail to the petrified stumps, deep in our thoughts. We plunked down on a park bench and chatted the afternoon away while sharing the excitement of Ice Age pollen discovered in a Pleistocene rock layer at the fossil beds. We shared a singular purpose then—to reveal a part of the Ice Age here at the fossil beds. Because the record of Ice Age pollen in the Rocky Mountains was limited, our work on Florissant's Ice Age pollen was important.

The Florissant Fossil Beds is also a place of change. Its landscape is a mosaic of montane forests and rich meadows enfolded in ever-shifting patterns of light, sound, and fragrance. It is a gateway to nature, to the past, and to the present. It is a tale of imagination, of scientific exploration, and of the Ute people. Whenever I visit, I find myself sinking mindlessly into its petrified past while I ponder its present.

The natural beauty at the Fossil Beds is also an invitation to explore its possibilities, to plunge into the forest and consider the flight of pollen grains, borne on a morning breeze. Or to follow a moss spore's journey. Water moves slowly through Grape Creek. Moss-covered boulders slow the creek, making small pools. Gnats flutter above the creek, and green grasses, dotted with wild iris and other wildflowers, line its banks. Springs, coming from deep inside the ground, help feed the watercourse. I can feel this stream and its sounds deep within my soul. It is sublime.



*Grape Creek in the fall. Photo date 2018 by S. W Veatch.*



# The Florissant Fossil Beds, Colorado: A Place of Change

by Steven Wade Veatch

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My wife and I walk the forest trails often, and the landscape feels alive. Beard lichen's wiry hair drops from forked branches. Chickadees and woodpeckers live with owls, deer, and black bears. There is a forest symphony of sounds composed of hums, trills, chatters, and peeps. Frogs call their mates. Wind stirs through the trees, rustles branches, and knocks down yellow mists of ponderosa pollen.

Black Abert squirrels leave a litter of chewed cones and tiny twigs, stripped of their bark, on the ground. In the winter, these cones, seeds, and twigs lie on the snow, showing that these squirrels do not hibernate. In the spring, pasque flowers poke up through the fallen pine needles and bloom in a soft lavender.



*A pasque flower, a harbinger of spring, blooms at the Florissant Fossil Beds.*

*Photo date 2019 by S. W. Veatch.*

# The Florissant Fossil Beds, Colorado: A Place of Change

by Steven Wade Veatch

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I notice the slow changes to a rotting log on the Fossil Bed's forest floor. The log shows the passage of time on a different scale: the time it takes for a big, downed tree to be transformed back into soil—two centuries, or about seven human generations.

Brimming with life, the log—now crumbled bits and pieces of wood covered with leaf litter—is a habitat for many species. Beetles chew the wood, forming serpentine galleries beneath the bark. Colonies of ants live in the cavities, forage for food, and remain subordinate to the mother queen. A mouse lives beneath the log's rotting roots; fungal strands penetrate the decaying wood. Patches of lichen and moss grow green on its surface. Spiders spin webs on spindly branches.

The log is now a spongy, mossy mound that once was a living tree. In this thriving microcosm of decay-dwelling species, there is a quiet yet energetic chemical factory recycling nutrients and organic matter. Altogether, this log, and others like it, nurture the forest by adding nutrients that sustain its health. And so it is that this landscape “nurses” my spirit.

There are other beneficial changes at the Fossil Beds. A combination of lightning strikes, a dry forest, and dry winds can cause a wildfire, which spreads across the landscape, bringing sudden change. Ponderosa pines are resistant to fire due to their thick bark and limbs that extend above the forest floor. Fire maintains the ponderosa pine forest by killing off competing trees. The ash from wildfires revitalizes the forest.

Change at Florissant comes in many ways with the cycles of day and night. The red dawn splashes the sky with morning possibilities. The midday sun floods the valley with brightness while the spires of green trees poke at the sky. Wavering shafts of afternoon sunlight reach the forest floor. After sundown, the twilight spreads like ether, and the mountains cool like stone while the valley fills with a flood of moonlight. The stars become pinpricks that sizzle in the night sky.

The circling seasons of the sun, snow, and rain bring change on a longer scale. Summer sunlight falls from unbelievably blue skies. There is music in the rain as it slaps aspen leaves, bounces, and splats on the ground before it disappears into the soil. In the fall, the air is crisp, and the aspen leaves are a brush stroke of radiant gold and orange. In the winter, elk weave tracks across snowy slopes. Coyotes send their penetrating calls bouncing across the white meadows when the frosty night comes on.



# The Florissant Fossil Beds, Colorado: A Place of Change

by Steven Wade Veatch

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*Raindrops bead up on aspen leaves at the park.*

*Photo date 2004 by S. W. Veatch*

Physical processes, such as the imperceptible progress of drifting continents, erosion, soil formation, or freeze-thaw cycles, bring change. And there are more rapid agents of disturbance—such as nearby volcanic eruptions that occurred 34 million years ago. These cataclysms sent flows of mud coursing down the river valley, forming a dam and lake that transformed organisms into fossils. The mud also surrounded the bases of trees, and, over time, petrified them.



# The Florissant Fossil Beds, Colorado: A Place of Change

by Steven Wade Veatch

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Today, petrified stumps stand like sentinels in the forest. Lichens cling to petrified wood like starfish on rocks. Kingdoms of moss stake their claims on fossil tree stumps. Whenever I hold a Florissant fossil or look at a stone stump, I experience the physical vastness of time and space.

Cultural change is a part of the fabric of this land of petrified forests and fossils. This was first the home of the Ute people, where their elders said you could learn a lot from listening to the land. The land was taken from the Utes, and these people were sent to less desirable places to subsist. I find evidence of these people today in the trees they modified or by finding an occasional arrowhead that is washed to the surface by summer rains. Roads brought homesteaders, who worked the land. Nearby goldfields intensified settlement.

Lastly, the values of people change. After decades of being a commercial tourist attraction, people wanted to preserve the Fossil Beds. Activists, including Estella Leopold, helped to prevent the destruction of the Fossil Beds until the National Park Service could preserve the area for future generations. Outside the park, the forest and meadows were plowed under by bulldozers, subdivided, and further broken up by lots, fences, and roads.



*A National Park Service archaeologist points out a peeled or culturally modified tree at the monument. The Utes used the bark for cradle boards and scraped the cambium layer for food and medicine. Photo date 2004 by S. W. Veatch.*



# The Florissant Fossil Beds, Colorado: A Place of Change

by Steven Wade Veatch

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Forests change, species evolve, and life proceeds. Today, the beauty of this place invites overuse, while the effects of climate change threaten the Fossil Beds with future habitat destruction and species extinction.

For me, the Florissant landscape is a sacred place: A place of change, a place to meditate and scribble in a journal—a place to gain insight into how to live my life. It positioned me to think about time and change, to peer into the past and imagine the future. And to feel the present while I reflect on life, death, order, disorder, continuity, and change.

*End*



## Trail Maintenance Crew

Fall 2023 Update

John Schwabe

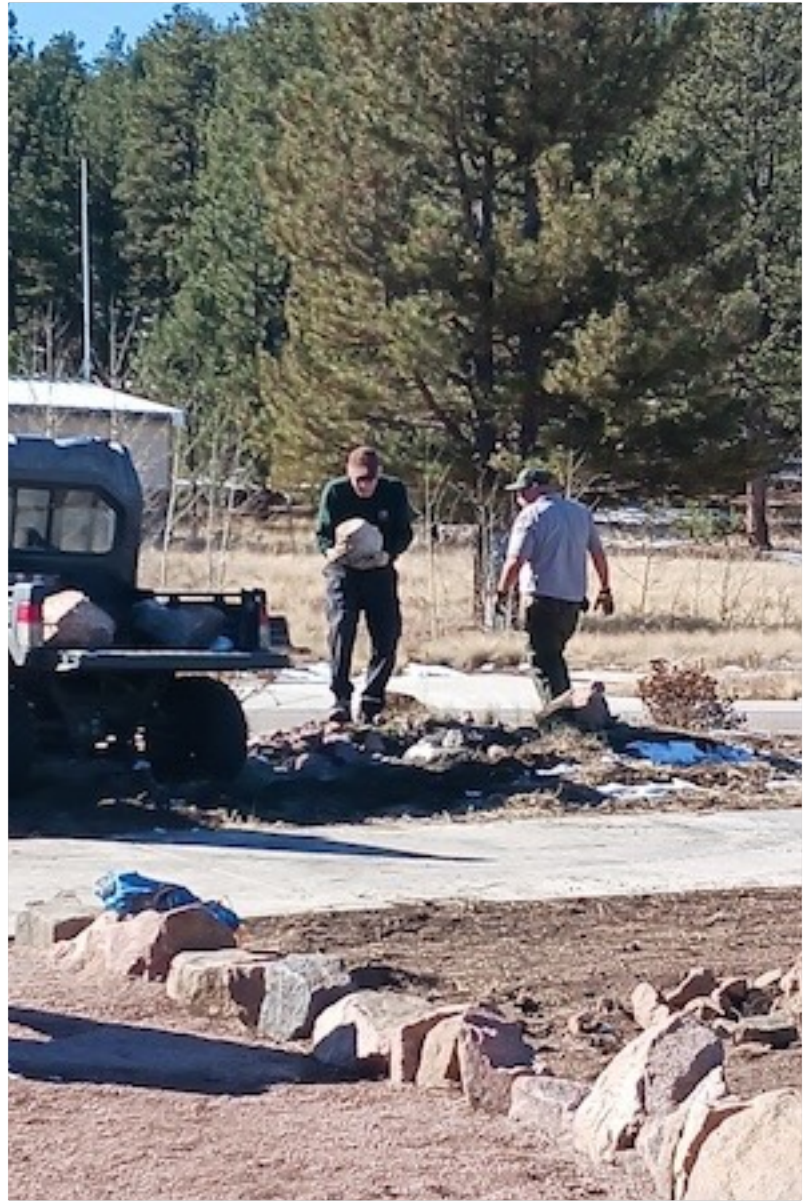


The Volunteer Trail Crew consisting of Ruth Gulliver, Mark Silas, Corky Capps and John Schwabe are wrapping up our successful trail season.

The weather had been good for late season dirt and rock work since the ground hasn't frozen yet, especially for mid-November. We have completed this year's work of removing old wooden water bars on the Saw Mill Trail, and partially completed the task on the Hans Loop. The purpose of removing the water bars is to correct poor placement, improve drainage, and create a natural, smooth, pleasing trail tread for the hiking experience. The final product is called a rolling dip.

The Hans Loop should be finished next year.

As a crew, we have developed a rhythm and usually we can do a minimum of two to three sites in a 3 1/2 hour work day. The work is quite physical but we have all learned to pace ourselves.



*A strong back would seem to be a requirement for members of the trail maintenance crew.*



## Trail Maintenance Crew

Fall 2023 Update

John Schwabe



With physical and planning help from the NPS maintenance staff, the crew is assisting in the design and placement of hardscape at the Visitor Center entrance circle.

A meandering path lined in native stone, compacted trail tread, and three wooden benches have been placed.

Native shrubs and wild flower seed will be planted in the Spring. The views from the benches are of the Florissant Valley, Crystal Peak and Pikes Peak.

The work when completed will enhance the visitor experience with wide open views, color, texture and a resting place.

We would like to thank Jeff Wison, Parker Severson, and Sydney Moreno, who comprise the NPS Facility Maintenance Staff, for all their help and supervision making it a great volunteer program and experience.

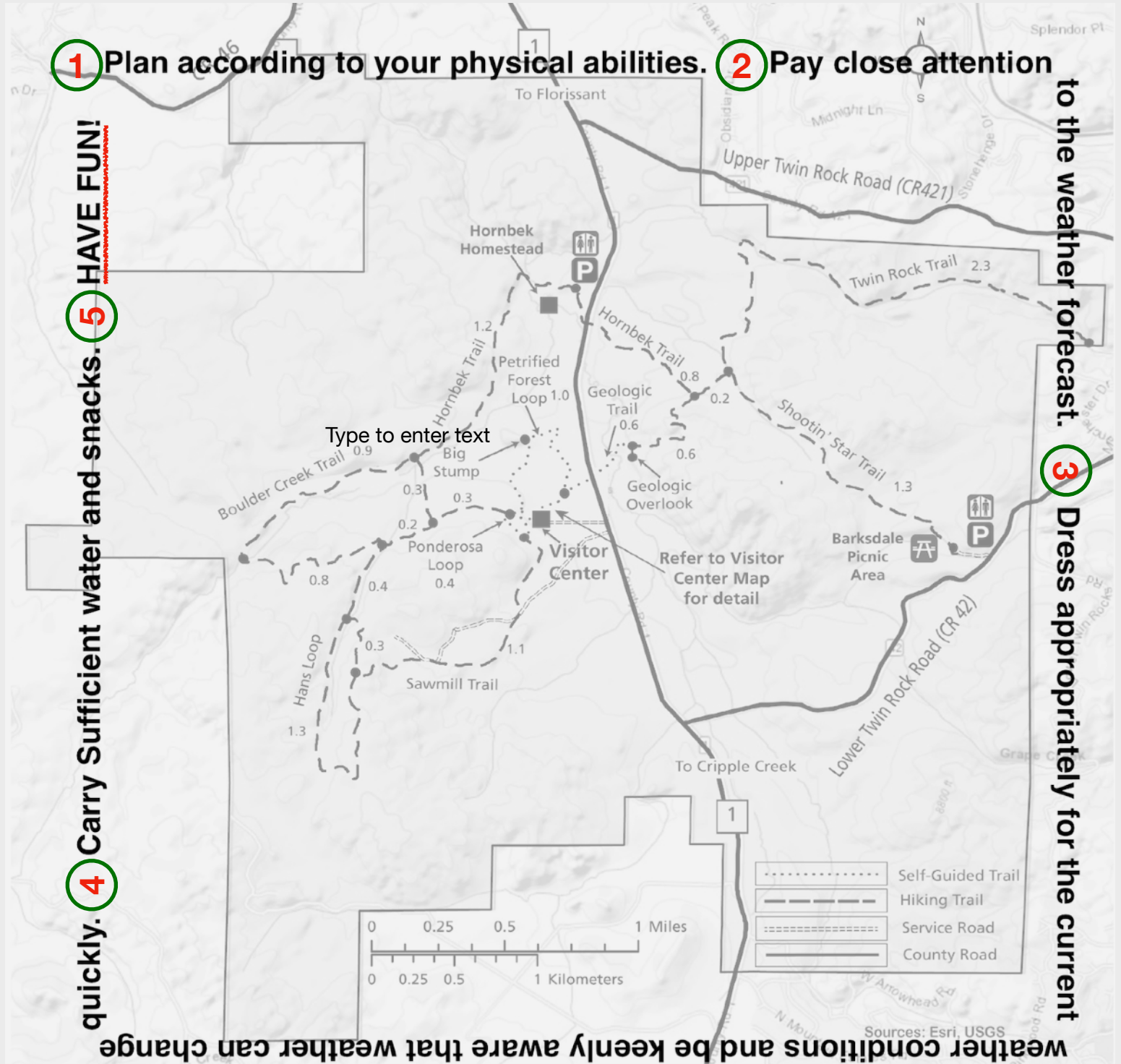


*Large rock did not grow there.  
Thank you Maintenance Crew!*

---

For questions about the Volunteer Trail Crew:  
Contact John Schwabe @ 719-689-3174 or email [jspg@live.com](mailto:jspg@live.com)

# Hike 'em All



*...and as you enjoy your hike;  
remember to thank those trail maintenance crew members...*



# Monument Improvements

- Gary Censoplano -

## Recently Completed Bridge and Dam Work

This spring and summer there has been a lot of activity along the trails as well as other areas of the Monument. The activities shown below were created by volunteers, park staff and outside contractors. All of which are vital to the Monument's well-being.

Crossing the pond on the Twin Rock Trail, a new bridge was constructed to allow for maintenance vehicles to cross and attend to any issues on or around the trail. In addition, the new bridge is much safer for trail users.



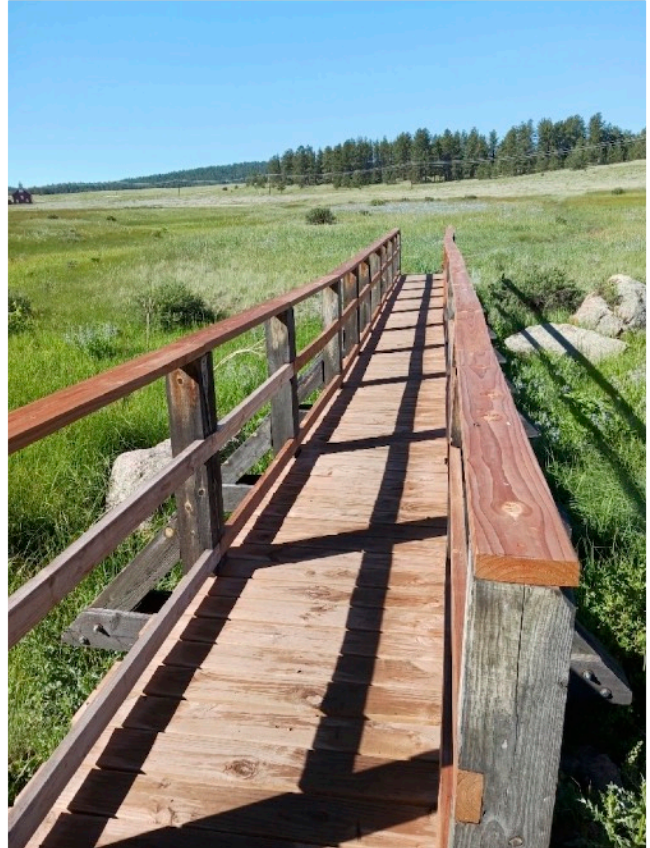


# Monument Improvements

- Gary Censoplano -

## Recently Completed Bridge and Dam Work

The Bridge by the Geo Trail/Hornbek Wildlife Loop, near Teller 1 was also improved to help enhance visitor experience.



Lastly, the earthen dam behind the Hornbek homestead was removed as part of the ongoing wetlands restoration project.



## Fossil Beds Intern Activity

### Unearthing Truths and Transforming Maps at Florissant Fossil Beds Monument

- Paityn Schlosser and Ashley Martinovich -

Florissant Fossil Beds National Monument stands as a testament to ancient ecosystems, preserving a wealth of geological and paleontological marvels. In the summer of 2023, interns Paityn Schlosser and Ashley Martinovich undertook a monumental task—to deepen the understanding of this historic site by refining the geologic map and challenging conventional categorizations. Their journey encompassed a meticulous mapping process, redefining nomenclature, and ultimately presenting their findings at the Geological Society of America conference.

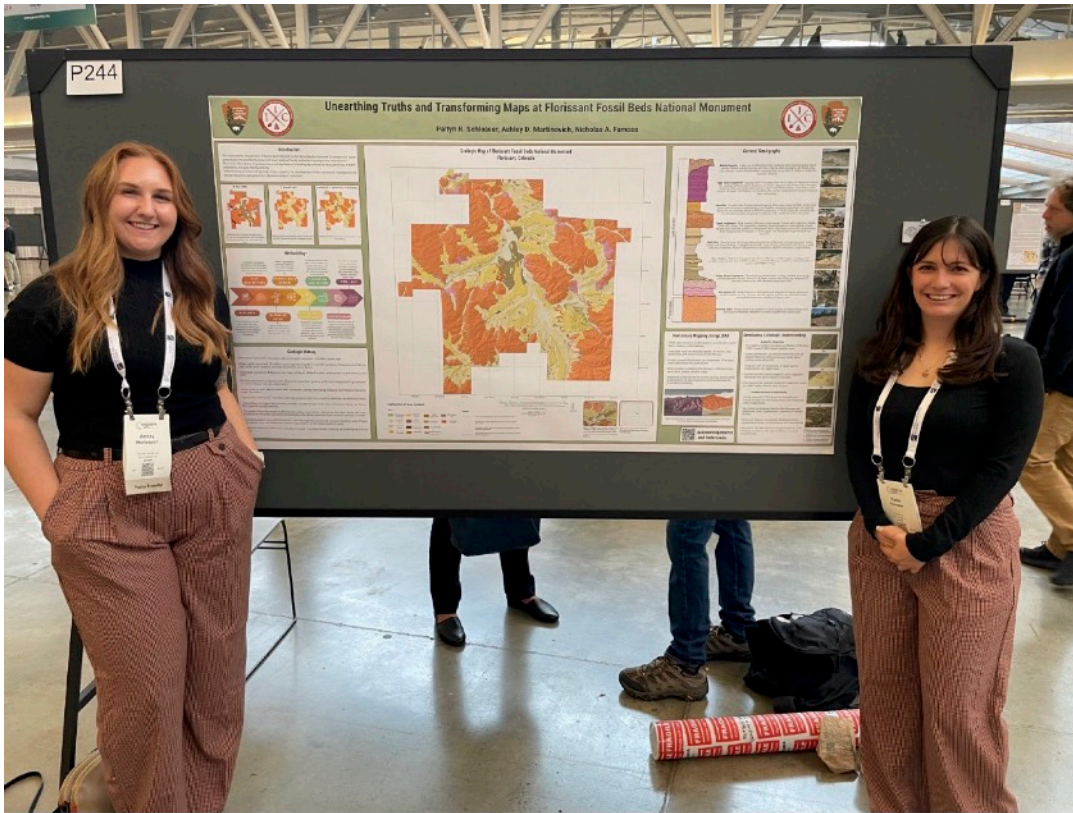
Schlosser and Martinovich commenced their internship with a comprehensive mapping initiative, aiming to enhance the geospatial accuracy of the monument's geological outcrops. Utilizing advanced geospatial technologies and traditional fieldwork methodologies, they documented and analyzed all exposed geological formations in the monument. High-precision GPS and remote sensing techniques were employed to ensure accuracy in the mapping process, creating a detailed and nuanced representation of the monument's geological features.

A significant aspect of their internship involved questioning existing nomenclature designations. Schlosser and Martinovich critically evaluated the previously established categorizations, examining the geological formations against historical records and contemporary scientific findings. This rigorous review led to the challenging and revising of nomenclature, aiming to more accurately reflect the geological reality of the Florissant Fossil Beds. In tandem with refining nomenclature, the interns embarked on rewriting geologic unit descriptions and revising the stratigraphic column. They delved into comprehensive research, combining field observations with existing literature to craft detailed and precise descriptions of the monument's geologic units. Their efforts aimed to create comprehensive and accurate documentation that could serve as a foundational resource for future research and understanding of the site's geological history.

The Friends facilitated the highlight of the interns' time at Florissant by enabling their travel to Pittsburgh, Pennsylvania to showcase their hard work at the Geological Society of America's (GSA) annual meeting. The 2023 GSA Conference is a captivating convergence of geologic enthusiasts sharing their innovation, collaboration, and passion for the future of geosciences for more than 130 years. The GSA Annual Meeting is a showcase of the newest technologies and ideas within geology, and an incredible opportunity for professionals to collaborate.

## Fossil Beds Intern Activity

Unearthing Truths and Transforming Maps at Florissant Fossil Beds Monument  
- Paityn Schlosser and Ashley Martinovich -



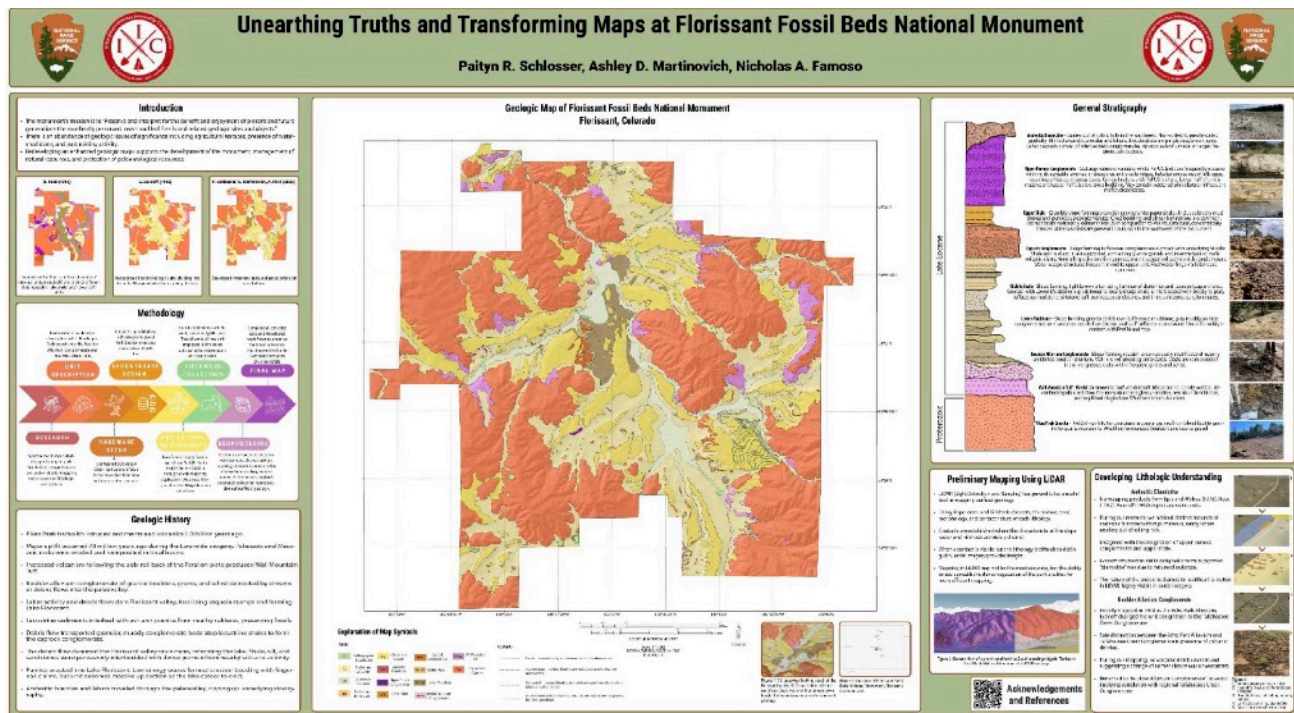
Schlosser and Martinovich reunited in October, one month after the conclusion of their time at Florissant, and traveled to Pittsburgh to share their work. Though the weather was dreary and intermittent showers frequented the city, the pair eagerly explored the conference hall to engage with students, researchers, and professionals alike. The two interns shined with the passion they fostered together through their collaboration on this project, overcoming obstacles and surpassing expectations through the completion of Florissant's Fossil Beds geologic map. The new map, displaying sub-meter accuracy of geologic units, will be used for future patrons, visitors, and researchers to the park. Despite there being more than a dozen map-based presentations, Schlosser and Martinovich's map stood out amongst the rest as theirs featured human-made disturbances found within the park, such as underground dams, abandoned buildings, and anthropogenic materials left behind during Florissant's history. Geologic maps tend to remove the human-influenced landscapes and formations, but Florissant's anthropogenic history is one of great importance, and therefore not to be ignored in their mapping endeavors.



# Fossil Beds Intern Activity

## Unearthing Truths and Transforming Maps at Florissant Fossil Beds Monument

- Paityn Schlosser and Ashley Martinovich -



The true essence of the conference lay in the spirit of collaboration that permeated every session and networking opportunity. The two interns chatted with a variety of professionals from diverse backgrounds and sectors, sharing insights, experiences, and challenges throughout their work at the park. In their free time, Schlosser and Martinovich were able to attend a few talks of professionals sharing current research in the field. Renowned speakers captivated audiences, sparking engaging discussions that continued long after the sessions concluded.

As their day at GSA drew to a close, its impact on the two interns remained palpable. The 2023 GSA Conference in Pittsburgh was a testament to the unwavering dedication of geoscience professionals and enthusiasts. Beyond being a mere gathering, it was a celebration of curiosity, collaboration, and the pursuit of knowledge. The conference radiated as a beacon of innovation and camaraderie, leaving an indelible mark on the two recent graduates. The ripple effect of the discussions and partnerships formed at the conference promises to shape the two's trajectory, driving forward innovation for the intersection of geology and GIS for years to come. As attendees depart with newfound insights and connections, the legacy of this remarkable gathering will continue to resonate, propelling the field of geoscience into a future defined by exploration and discovery.

## Fossil Beds Intern Activity

### Unearthing Truths and Transforming Maps at Florissant Fossil Beds Monument

- Paityn Schlosser and Ashley Martinovich -

Currently, the two interns have moved onto working full time positions in GIS and geology. Ashley Martinovich is currently living in Colorado Springs, working as a GIS Technician for the City of Denver - Office of the City Forester. An exciting project she is working on is a Plantable Spaces Analysis that utilizes city parameters to determine areas to increase the urban forest in Denver's public right-of-way. Paityn Schlosser has returned to her home state of Missouri, working as a Geologist for the Department of Natural Resources' Geological Survey. Despite difficulties and challenges along the way, Schlosser and Martinovich are forever grateful for the opportunity to explore the geology of Florissant Fossil Beds National Monument, to attend the 2023 Geological Society of America conference, and to make lifelong best friends.





## Bits and Pieces

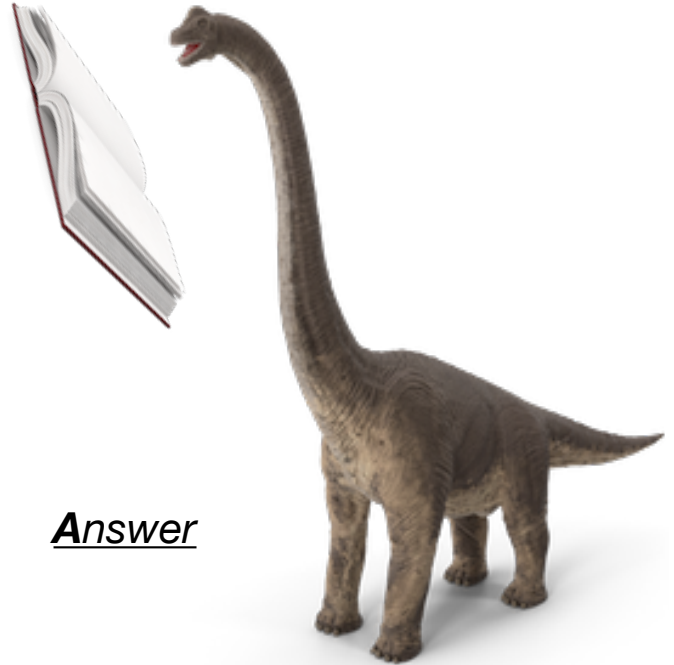
### Question

**W**hat is the favorite reference book of a paleontologist or a dinosaur that can read?



### Answer

*A Thesaurus*



### Question

**W**hat is so special about a fossil?

### Answer

Provided by [NPS.GOV](https://www.nps.gov)

Paleontological resources, or fossils, are any evidence of past life preserved in geologic context. They are a tangible connection to life, landscapes, and climates of the past. They show us how life, landscapes, and climate have changed over time and how living things responded to those changes. Those lessons are particularly important as modern climate continues to change.

All fossils are **irreplaceable!** The National Park Service calls these type of resources "non-renewable." If you find a fossil in a National Park Service area, take a photograph of it, mark its spot on a map, leave it where you found it, and tell a ranger. - [NPS.GOV](https://www.nps.gov)

## Bits and Pieces

**Please  
do not  
feed  
or approach  
Wildlife.**


**Enjoy them  
from a  
safe distance.**

**Visitors are moving too close to the Triceratops herd.**



*For Illustrative purposes only as there are no Triceratops in the Fossil Beds.*





You  
might  
know where  
the path  
begins and ends  
but  
you'll never know  
what wonder  
you might find  
along the way



“You cannot get through a single day without having an impact on the world around you. What you do makes a difference, and you have to decide what kind of difference you want to make.”

- Jane Goodall -



*Thank you for your patronage and support.*





Happy Holidays to All!

