



Winter is a *great* time to visit the Fossil Beds.

The crowds of summer and fall have diminished and there are more opportunities to enjoy the solitude and unique natural beauty that the winter season offers.

Please be sure to verify Monument hours prior to your visit by calling 719 748-3253. Significant weather may cause restrictions for public access to the Monument.

We look forward to seeing you this winter season.
(Dress & plan appropriately - it's winter)





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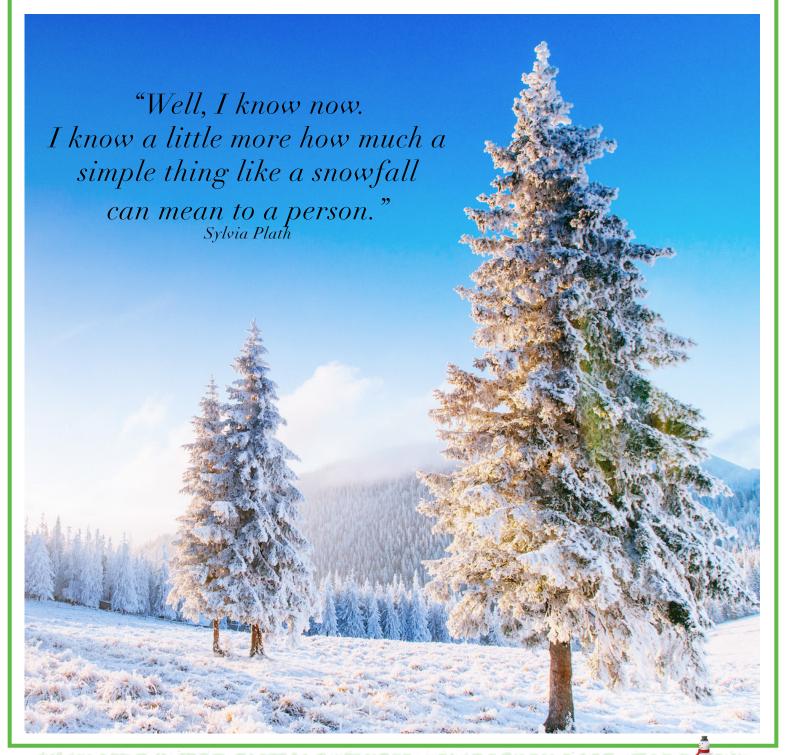
We encourage submissions of articles relevant to the Florissant Fossil Beds National Monument and / or our natural environment. Our next publication date will coincide with the first day of spring, March 20, 2025

Please contact us here.

Winter win-ter

1. :the season between autumn and spring comprising in the northern hemisphere usually the months of December, January, and February or as reckoned astronomically extending from the December solstice to the March equinox.

Merriam-Webster
-meh-



Great Backyard Bird Count

submitted by Sally McCracken

Come and join us at the Florissant Fossil Beds NM on <u>Saturday</u>, <u>February 15, 2025</u>, to participate in the annual Great Backyard Bird Count from <u>9 AM to 1 PM</u>. We will have bird walks for doing the counting and other activities for participants, families and kids!

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 population's health. This year, the event runs from Friday, February 14th through Monday, February 17th.

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 <u>Saturday</u>, <u>February 15th</u> for a very important citizen science event and learn many interesting things about birds. Check the following websites for more information about this global event: eBird and/or <u>BirdCount.org</u>



Winter Astronomy - Florissant Fossil Beds Night Sky Mark Harter, FLFO Volunteer Ranger, Astronomy Lead December 2024

Winter – this is the time of year that FLFO boasts the clearest night skies of the year that earn the highly coveted International Dark Sky Park (IDSP) designation. The cold, long Rocky Mountain nights are clear of dust and moisture, which make the stars shine and twinkle like no other time of the year. The constellations of mighty hunter Orion, his faithful dogs Canis Major and Canis Minor, the Gemini Twins, Queen Cassiopeia, Taurus the Bull, the Pleiades (7 Sisters), Andromeda Galaxy, and numerous rich stellar nebulas and planets are all in season and worth the chill to view.

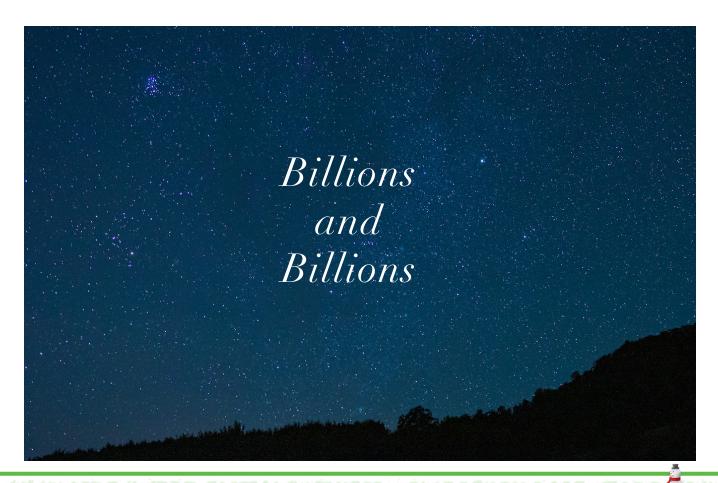
A Very Special Fall Visitor. This fall we had a very special visitor in the western sky after sunset – Comet C/2023 A3 Tsuchinshan. This is a comet that was discovered by Chinese astronomers in 2023, and it made a close approach to Earth in October 2024. A comet is simply a dirty ice ball mixed with rock, and as it orbits the sun it starts to melt, creating a trail of moisture and debris. Comet C/2023's orbit is retrograde, meaning it moves in the opposite direction to most other objects in the solar system. It's also non-periodic, meaning it takes more than 200 years to orbit the sun, so none of us will ever see it again in our lifetimes, and in fact it may even depart the solar system. The comet is nearly 2 miles in diameter and has a tail of dust and gasses that extends for tens of millions of miles. Below is a picture that Mark Harter took at the Fossil Beds on October 26, 2024.



Comet C/2023 A3 Tsuchinshan (photo credit: Mark Harter)

We held our last Night Sky Astronomy Program of the year at the Florissant Fossil Beds National Monument on October 25, and it was a great way to end the 2024 viewing year! We had 243 visitors on a very clear night, with 12 telescopes and astronomers from the Colorado Springs Astronomical Society (CSASTRO), during which we observed nebulas, galaxies, comets, and satellites. This put us over 1,000 visitors to FLFO for just Night Sky Astronomy events this year, for the third year in a row. We have a total of 5 Astronomy Night Sky events planned for 2025; we'll announce those dates in the next Friends' Newsletter (they're in June, July, August, and October). Hope to see you all out at one (or all) of our FLFO Astronomy Night Sky events!

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 supporting the United States Space Force and Office of Space Commerce.



Paleontologists Retired and New

by Herb Meyer

Since my retirement last year, I've been pleased to have ongoing interaction as a volunteer "Paleontologist Emeritus" at the Monument. Extending our outreach to nearby states, I gave a Zoom talk about Florissant for the Dallas Paleontological Society's meeting in October. I was involved on Stephanie Tkacik's thesis committee at the University of Colorado Boulder as she completed her work on Florissant fossil mammals in December. Her work, supported in part by a stipend from the Friends, made several new discoveries, and she shares an article about her findings in this newsletter. We appreciate that the Friends have always recognized that the Monument's primary purpose is paleontology and have provided needed support in so many ways, including supporting student research and interns, as well as our partnership with the fossil forest site in Peru. My collaborator Dr. Deborah Woodcock, and I are exploring the possibility of another visit to continue our work at the Peruvian site in 2025, and Dr. Woodcock made a trip there this year with other researchers to collect samples for fossil pollen. Meanwhile, back at Florissant, Museum Technician Conni O'Connor and I are preparing an abstract about the Monument's recent exhibits for presentation at the Association for Materials and Methods in Paleontology (AMMP) conference this spring, an event in which Conni plays a leading role every year as one of the organizers.

I'm very excited about the selection of Dr. Gabi Rossetto-Harris as the Monument's new Paleontologist. She began here as one of our undergraduate pale-ontology interns ten years ago, working on our inventory and monitoring of paleontological sites, as well as an independent research project. Since then, she has progressed to establish herself as an accomplished professional in paleobotany, earning graduate degrees from Penn State University and working with the Denver Museum of Nature & Science. She begins a career that holds abundant opportunities to continue the legacy that follows from many generations of paleontologists who have studied Florissant for a century and a half. She brings many talents to the position along with research experience on Eocene floras. We can all look forward to the new successes of the Monument's paleontology program that Gabi and Conni are continuing to provide.



Welcome Dr. Gabi Rossetto-Harris

Gabi is a Los Angeles, California, native, but since attending Colorado College for her B.A. in geology, she never looked back after falling in love with the Rocky Mountains. As an undergraduate, Gabi completed a Mosaics in Science internship at Florissant Fossil Beds National Monument in summer 2014. During her internship at FLFO, she completed the annual inventory and monitoring of fossil sites, helped with stump photogrammetry, among other projects. Gabi was completing a thesis research project looking at the Paleogene elevation history of the Rocky Mountains using hydrogen isotopes in volcanic glass, but her time at FLFO quickly shifted her future interests from geochemistry to paleontology after being exposed to fossils at the Monument. After graduating from CC, she then spent two years immersed in the Denver Museum of Nature & Science as a paleontology field and research intern and later promoted to a collections assistant in paleobotany (2015-2017).

Gabi fulfilled her dream of doing research in her father's homeland of Argentina with the completion of a M.Sc. and Ph.D. working on Eocene-Oligocene Patagonian fossil plants

at Penn State University (2017-2023), where she described and curated fossil plants at the National Museum of Natural History (Smithsonian) and Argentine museums, the Museo Paleontológico Egidio Feruglio and the Museo Paleontológico Bariloche.

Following her doctoral studies, Gabi was awarded a National Science Foundation Post-doctoral Research Fellowship in Biology. This allowed her to spend the last nine months investigating the rainforest affinities of fossils from the Paleocene Castle Rock flora in Colorado, while affiliated with the Denver Museum of Nature & Science, Denver, Colorado, and the Field Museum, Chicago, Illinois.

Gabi is now thrilled to be returning to FLFO (as of October 2024) for her first permanent federal position as the successor to her mentor, Dr. Herb Meyer, Emeritus Paleontologist, and to see many friendly faces among the FLFO staff and volunteers. She is committed to continuing Dr. Meyer's legacy of a strong internship program and is very appreciative of the support of the Friends' group to help make that happen.

While not at work, Gabi is kept busy by her sourdough baking and spending time with family, which includes her 4-year-old daughter, 2-yearold son, and her husband, who ironically is from Woodland Park.

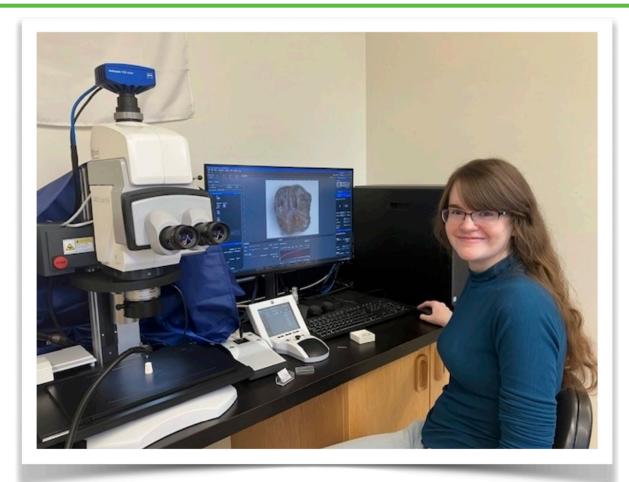
Paleontologist pey-lee-uhn-TOL-uh-jist

 N_{OII} n

1. a scientist who specializes in the study of life forms that existed in previous geologic periods, as respresented by their fossils.

(Dictionary: Com)





Stephanie Tkacik at the microscope camera used to capture images of the Florissant specimens. The tooth shown on screen is merely 1.48 x 1.58 mm.

Photo taken by Jaelyn Eberle.

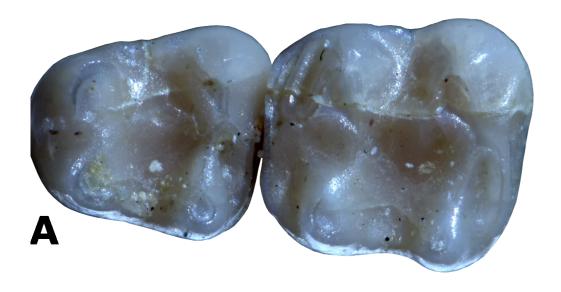
"Thesis Reveals New Fossil Mammals" by Stephanie Tkacik

It's been an amazing two and a half years working on my project on the mammals of the Florissant Formation. I am immensely grateful to the Friends of Florissant for the generosity they showed me last year with their stipend award, which helped me focus on my research and eased some of the stresses that come with being a student. The fossils here are quite different from anything else I've ever worked with before— it was a very new experience to handle teeth that could comfortably perch on the head of a pin! But their small size made the wealth of information they revealed all the more exciting to uncover. Taking something that to the naked eye looks like a grain of sand, placing it under a microscope, and seeing a new world of detail reveal itself was always incredible.

In last year's August issue of this newsletter I stated my goals were to expand the mammal roster of Florissant, and to evaluate the diversity of the most fossil-rich mammal site. I'm pleased to report that I've met both of those goals. In the course of my research, I've identified eight mammal taxa new to the Florissant Formation, bringing the total to twenty six. These include four rodents including two additional genera, a family of diminutive, shrew-like mammals, a second genus of cat-sized deer, and a species-level identification for the small horse genus Mesohippus, M. bairdi. The eighth and final taxon's exact identity remains mysterious, but matches no other mammal yet known from the Fossil Beds.

I used rarefaction to analyze the diversity of the Florissant mammal fauna. This method involves taking a sample with a given number of specimens, and their taxonomic information, and calculating how many taxa would be expected for a smaller sample size. The curve is beginning to flatten out, but it hasn't plateaued yet. This means that even with twenty-six mammal taxa known, there's still more out there buried beneath our feet, waiting to be unearthed.

<u>Editor Note:</u> Please note these images are significantly enlarged and not to suggested scale. Our presses were unable to properly accommodate the size / scale recommendations.



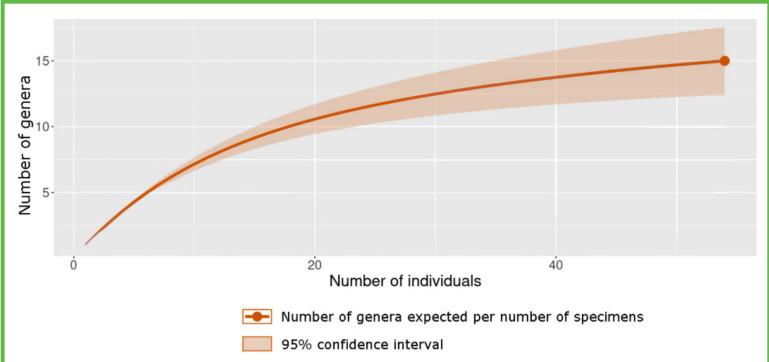
A.) Two lower teeth of the ground squirrel-like rodent Namatomys.



B.) A lower juvenile tooth of the ancient squirrel Hesperopetes.



C.) An upper molar of the small deer Hendryomeryx.



A rarefaction curve of the diversity of the Florissant mammal specimens, showing how many genera one would expect to find from a given number of collected specimens.



Image directly above is not part of Stephanie's article.

TOC





The Florissant Fossil Beds National Monument's Bookstore

Mrs. Linda Dolven, the manager of the bookstore at the Fossil Beds, on behalf of her employer, Rocky Mountain Conservancy, sends holiday greetings to everyone. She wishes to thank everyone for their patronage in 2024 and looks forward to seeing everyone in 2025. Linda also wishes to remind everyone that there are many great items in the bookstore for gifts this holiday season.

WANTED:

Intern Housing

Hello, Friends of the Florissant Fossil Beds! We are reaching out to ask if you or anyone you know in your community may be interested in being a housing contact for us.

We have goals of continuing the strong internship program at FLFO, but finding short-term housing on intern-friendly budgets in the Florissant, Woodland Park, or Teller County surrounding areas is a major hurdle. The few existing contacts we have are critical in supporting our interns, and we are very grateful for them! That being said, we would like to expand upon that list of community members to have additional options for the interns to contact as availability changes. If you have a private room, cabin, or small house that you would potentially be willing to rent to an intern, please contact Gabi to discuss the options. Thank you!

Dr. Gabi Harris

Mobile: (719) 877-1852

grharris@nps.gov





A Communion of Discovery

Dedicated to Estella Leopold, conservationist.[1]

Melting ice washed gravels down, burying the mammoth-hiding it through the ages. And I found a rock at its grave, with secrets deep inside.

I broke it, crushed it, sifted it; dissolved it in a beaker, spun it by a centrifuge, and peeled back layers of time.

Now only hidden fossils remain: Pollen grains and mossy spores once floating on an Ice Age breeze.

Now in that communion of discovery these small fossils yield the deepest glimpse through time to the world before we came, and warn of a future we must face—while just outside forests change, species die,

and life recedes.

By Steven Wade Veatch

Note: this poem is an expanded version of an earlier poem entitled "Mammoth" by the author.

¹ Estella Leopold assisted me in the actual paleontological research mentioned in this poem. A sediment layer associated with the burial site of a Columbian Mammoth at the Florissant Fossil Beds National Monument was found to contain Ice Age pollen and spores. This research resulted in a paper presented at the Geological Society of America in Denver in 2013. Estella was one of the original "Defenders of Florissant" and was instrumental in the Florissant Fossil Beds becoming a national monument. Estella is the daughter of Aldo Leopold, who wrote the Sand County Almanac. Estella passed away February 25, 2024. She was 97 years old.



Valley of the Shadows

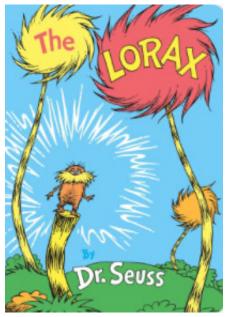
(unattributed)

(taken from the Newsletter from August / September of 1993, 31 years ago)

The Ute Indians are the oldest historical residents of Florissant valley. They shared the mountainous territory of Colorado with the Comanches; the area north of the Arkansas River belonging to the Utes.

The Utes spent time in Florissant valley as part of their yearly cycle in the region. Winters were spent along the Arkansas River valley and summers in their favorite hunting grounds, South Park, which was teeming with wild game. They made a yearly trek through the Florissant area, down the Ute Pass from the "Shining Mountain" to pay tribute to the Great Spirit whose breath caused the waters of Manitou Springs to bubble and steam from the earth. They must have marveled at the fossils and petrified wood, and some say that they called the area the Valley of the Shadows. We can only guess at the explanations they had for these pictures in stone. Whatever they thought of the area, they left it as they found it. Part of this was probably due to their philosophy of taking only what they need from the earth, but part of the reason may have been practical. The Utes were nomads, and it wouldn't have made sense to them to haul around rocks. One account of the valley from the 1870's says that there was so much petrified wood lying around, that in places it was almost impassable! Any visitor can see for themselves that the valley has changed considerably since then. However, thanks to the effort of the Park Service, you, like the Utes, can visit the area and see it virtually unchanged since your last visit. If you would like to learn more about the early days of the Florissant Valley, join us for the Hornbeck Homestead Days Celebration.





I am the Lorax. I speak for the trees.

Dr. Seuss

A children's book with an environmental message of benefit for all.

Available on Amazon here.

An overview of the water of the Colorado River David Owen

"The Colorado River is a crucial resource for a surprisingly large part of the United States, and every gallon that flows down it is owned or claimed by someone." Goodreads

"Fascinating, thoughtful, and wise."

—Bill Bryann

WHERE

THE

WATER

GOES

LIFE AND DEATH ALONG
THE COLORADO RIVER

DAVID OWEN

Available on Amazon here.

Friends of the Florissant Fossil Beds, Inc. New Fundraising Platform

Patty Glatfelter, Leadership Team Member

Statement of Purpose from Colorado Gives website:

Colorado Gives Foundation is a community foundation with a mission to make good happen by connecting people, ideas and nonprofits. In Jefferson County (Jeffco), we partner with local nonprofits through various philanthropic tools, including grantmaking to help build resilient, connected and thriving communities. Statewide, we created ColoradoGives.org—a year-round giving platform that makes it easy for individuals and businesses to support nonprofits, and for nonprofits to raise the funds they need to grow their impact.

Since launching Colorado Gives Day in 2010, Coloradans have donated \$469 million for thousands of nonprofits statewide. Held each December, it's become Colorado's biggest giving movement, bringing communities together to support nonprofits.

This Colorado Gives Day, you can help make good happen. One gift at a time. Why did the Friends Join Colorado Gives Foundation?

The inspiration to join the Foundation sparked when our generous supporter, John Wright, the son of one of the original Defenders of Florissant, Vim Wright, approached our group with the idea of creating an ongoing Endowment. These funds would honor his mother and maintain her legacy for the purpose of supporting the ongoing education of future generations of interns engaged in conservation, education and research that align with the goals of the Florissant Fossil Beds National Monument. By joining forces with Colorado Gives (CO Gives), the structure exists for this type of financial support in perpetuity. It can tap into the wealth of experience and financial structure that Colorado Gives has developed. It relieves the burden of institutional investing and fiduciary responsibility that an organization the size of the Friends would have difficulty managing and sustaining over many years.

CO Gives maintains an online donation platform that is maintained year-round so that additional gifts of smaller donations or larger planned giving donations can be incorporated into the Friends' fundraising efforts with the help of CO Gives professional management services. An all-volunteer organization, like the Friends, has not had the structural capacity to manage this type of funding until now. It opens so many more opportunities to support the interns that contribute to the growth and research that has always been an aspect of the Monument's mission.

Our first Colorado Gives Day launched on December 10, 2024 has generated \$1034.00 as of press time. Additional donations are welcome through December 31st for this campaign which includes opportunities for matching funds through the CO Gives organization.

We will be able to draw up to 4% of the fund each year for the interns so that sustainable funding will always be available. The funds will be distributed by the Friends in consultation with the Monument's staff to continue the mission of the Monument. We will be able to attract young minds who can launch careers that emphasize environmental conservation, education and beneficial scientific research.

To learn more about the Colorado Gives Foundation check out: www.colorado-gives.org/p/about-us

If you would like to discuss more about the Friends' initiative to create this planned giving opportunity, feel free to contact Patty Glatfelter at: www.fossilbeds.org



Donation Corner

January 1-December 12, 2024 Submitted by Gary Censoplano

To our donors:

We are thankful for your generosity and support for our mission. Much of what we do, would not be possible without you.

Name	Last Name	Location	State
Frisco Nordic Friends		Silverthorne	CO
Joseph and Lois	Cancellare	El Paso	TX
Colorado Springs Mineralogical Society		Colorado Springs	СО
Sara	Miner	Colorado Springs	со
Thomas	Wylie	Centennial	CO
Patty	Glatfelter	Florissant	CO
Fred	Gustafson	Florissant	CO
David	DeWeese		CA
Anita	Flindt	Florissant	CO
Mark & Linda	Silas	Florissant	CO
John	Wright	Denver	СО
Lissa	Mussi		
Peter	Rudy		
Amy & Jeff	Wolin	Woodland Park	СО
Jeff	Stephenson		
Dana	Griffen		
Jerry	McLain	Woodland Park	СО
Beth	Omenhiser	Divide	CO
Jesse	Egan		
Sally	McCracken	Woodland Park	СО
Emma	Hutchens	Guffey	CO
Kent	Borges	Colorado Springs	СО

Please note that due to scheduling constraints some donations may not be reflected but will be acknowledged in our next newsletter.

All of your contributions are meaningful and deeply appreciated.



A most sincere thank you And heartfelt Fare-thee-well Jan Beals

The spirit of the Friends is diminished with your parting.

Jan Beals has elected, after 5+ years at the helm, to retire from her pivotal position among the Friends of the Fossil Beds leadership team to pursue life's outside interests.

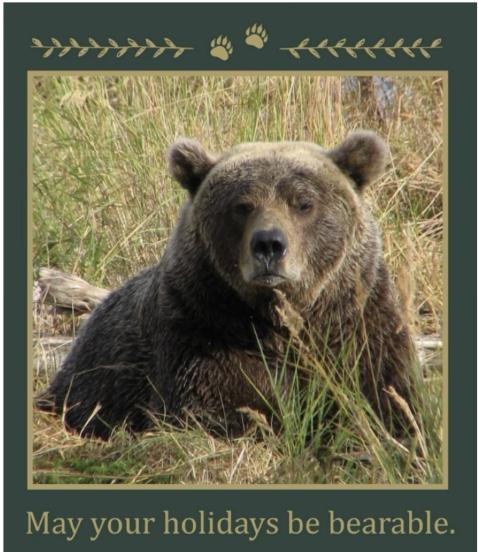
It is difficult to properly assess and measure the hours and/or contributions made by Jan Beals during her tenure among the leadership group of the Friends of the Fossil Beds. Her contributions have been of extraordinary value to the betterment of the Florissant Fossil Beds National Monument.

- Treasurer for over 5 years guiding us through transitioning from the bookkeeping developed by our previous long-term treasurer Jeff Brandt and updating the system for evolving challenges
- Devoting literally thousands of hours to prepare us for an entirely new bookkeeping system with the help of our volunteer CPA, Jean Verrier. This has required many, many steps to transition from Quicken to Quick Books so that we may expand our professionalism and efficiency with modern fiscal requirements and cyber demands.
- Previously she devoted thousands of hours with other volunteers and staff to create an accurate trail map that is currently in use.
- Jan has provided expertise and valuable advice in managing the demands required of our nonprofit so that it could function effectively with the National Park Service requirements
- She has <u>always</u> been available to answer complex questions regarding taxes, spread sheets and all things related to our legal requirements with kindness and professionalism.



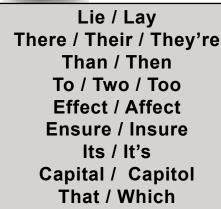
Coda







NPS





Just ask
Michelle
-Chief Editor-

Thank you Michelle! from the print room

Lie / Lay
There / Their / They're
Than / Then
To / Two / Too
Effect / Affect
Ensure / Insure
Its / It's
Capital / Capitol
That / Which