

# Friends of the Florissant Fossil Beds eNewsletter

# Friends Board Members

Patty Glatfelter
Leadership Team

Wayne Johnston
Web Master

Linda Laverty

Rick Wilson

Membership

Sally Maertens
Leadership Team
Jerry McLain

Bev Harms
Secretary

**Cheryl Petersen** 

lan Beals

Treasurer / Leadership

Jean Rodeck

**Member Emeritus** 

John Schwabe

Project Coordinator

Wendie Warner

**Technology Coordinator** 

Gary Censoplano

Jeff Brandt
Therese Johnson

Troy Ruiz

Newsletter

Every Fossil Needs a Friend

#55—August 2023

# Friends Provide Support for Graduate Student Research Projects at Florissant

This year, the Friends of the Florissant Fossil Beds are supporting two graduate students who are beginning Master's thesis projects about Florissant's Eocene geology and paleontology. They are doing field work at Florissant with their thesis advisors, and the monument's Paleontologist Emeritus Dr. Herb Meyer is also on both of their thesis committees. The work will continue into the coming academic year as they complete their theses, and they will summarize their findings in a future Friends newsletter.

Ariana Miranda is a graduate student at Temple University, and she was a paleon-tology intern at Florissant in 2016. Working under her advisor Dr. Dennis Terry, she is examining layers of the Florissant Formation that preserve ancient soils known as paleosols. Dr. Terry has also worked in collaboration with the monument's project in Peru.

Stephanie Tkacik is a graduate student at the University of Colorado Boulder. She is working to collect sediments that contain the teeth of very small mammals such as rodents and rabbits.

Her advisor is Dr. Jaelyn Eberle, whose work at Florissant with other students over the past 20 years has tripled the number of fossil mammal species.

The students and their advisors were all together at the monument on the morning of June 22, when the Friends presented them with their awards. Each student received a stipend of \$3,000 from the Friends to



The Friends presented stipend awards to two graduate students on June 22. Left to right, Dr. Herb Meyer, Dr. Dennis Terry, Ariana Miranda, Friends President Patty Glatfelter, Stephanie Tkacik, and Dr. Jaelyn Eberle.

help support their research, which will take place both in the field at Florissant and in the labs at their universities. The Friends are grateful to the Colorado Springs Mineralogical Society and the Lake George Gem and Mineral Club, which provided a portion of the funding for the stipend awards. The Friends presented stipend awards to two graduate students on June 22. Left to right, Dr. Herb Meyer, Dr. Dennis Terry, Ariana Miranda, Friends President Patty Glatfelter, Stephanie Tkacik, and Dr. Jaelyn Eberle.

#### Message from Ariana Miranda

My first time in Florissant Fossil Beds National Monument (FLFO) was in the summer of 2016 when I was hired as a summer intern. At the time, I was a fresh graduate from Temple University, having earned a Bachelor of Science in Geology with a focus in paleontology. The previous year I had completed my field geology course in Olduvai Gorge, Tanzania, where I learned about hominid and Pleistocene mammal evolution. During my internship at FLFO, I photographed fossil sites throughout the monument and documented changes

from previous years for the Inventory & Monitoring (I&M) project. I eventually used the historic I&M data to analyze if the condition of fossil sites were changing over time. Based on my analysis, I submitted my first abstract for the annual meeting of the Geological Society of America (GSA) in October 2016.

In the ensuing years, I worked in environmental consulting, but my desire to earn a Master's degree always pervaded. So in 2021, during a vacation to Colorado, I visited FLFO again and thought of the possibility of a thesis based on Florissant's paleosols. Paleosols are fossilized soils that have been turned into rock over millions of years. They can preserve climate signatures of the ancient landscape, like how cold or warm the climate was or how much it rained. Understanding the conditions of the late Eocene Florissant is crucial since the world transitioned from 'hothouse' to a 'icehouse' climate and caused a minor extinction. My graduate research can also be used to understand the growing conditions of the Florissant fossil Sequoia stumps and compare them to coastal redwood, Sequoia sempervirens, the only living member. I greatly appreciate the Friends of the Florissant for the opportunity to *fund my research for both my fieldwork and to present my* conclusions later this year at the GSA annual conference in Pittsburgh.



Ariana Miranda, a graduate student at Temple University, is digging trenches in the Florissant Formation to expose the layers of ancient soils known as paleosols.

#### Message from Stephanie Tkacik

I'm visiting the Florissant Fossil Beds National Monument for the first time this year to conduct fieldwork on my master's thesis with my advisor, Dr. Jaelyn Eberle. I've been fascinated by vertebrate paleontology for my entire life, and completed degrees in geology and biology at ASU in order to properly start pursuing a career in the field. Over the years I've done volunteer paleontological fieldwork in Arizona, New Mexico, and South Dakota, and I'm thrilled to have a chance now to do fieldwork as a researcher, aided by the generous support of the Friends of Florissant.

The core of my project is to update the roster of fossil mammal species known from Florissant; it has not seen much revision for over a decade, but fieldwork has carried on through that time, leaving a trove of fossils

awaiting identification. However, some of the specimens are isolated, fragmentary bones which cannot easily be identified, as they have no diagnostic features. Therefore, to grow my sample size and the Monument's collection of specimens, I am searching for more specimens both out in the field and in sediment collected and taken back to Dr. Eberle's lab in Boulder. My focus will be on tooth fossils, which bear the most distinctive characteristics that can be used to identify a specimen down to genus and even species level. After this, my secondary goal will be to use my identifications to analyze the site's species richness.



Stephanie Tkacik, a graduate student in geology at the University of Colorado Boulder, is collecting Eocene fossil mammals from the Florissant Formation.

# **Upcoming Virtual Seminar**

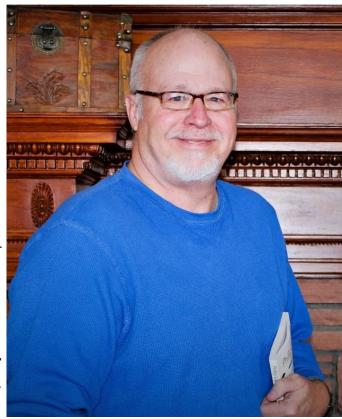
Steve Veatch will do our next virtual seminar on Sunday, September 17th at 10 AM. Information will be forthcoming on how to register for this virtual seminar. The description follows.

#### **Exploring the Geology of the Pikes Peak Region**

Through this educational and multimedia program, participants will learn about the geological features, rocks, minerals, and mines of the Pikes Peak region. Participants will gain insight into the region's past and ancient life forms through the fossil record. Discussions, questions, and sharing observations will help deepen understanding of the geological concepts covered. Anyone interested in the geological history of this region will enjoy this class.

#### **Instructor bio:**

Steven Veatch has contributed chapters to these three books: Field Trips in the Southern Rocky Mountains, USA, Field Guide 5; The Paleontology of the Upper Eocene Florissant Formation, Colorado; and The World's Greatest Gold Camp: An Introduction to the History of the Cripple Creek and Victor Mining District. His articles and on science and history have been published in magazines and newspapers. His poetry has been published in Kansas City Voices, The Betsie Current, Ute Country News, and Colorado Life. He holds a BS in Business Administration from Colorado State University-Pueblo, a MA in Management from Webster University, and a MS in Earth Science from Emporia State University. He is based near Interlochen, Michigan.



#### A Note from Your Admin Team

By Patty Glatfelter

The Monument had a busy summer of serving visitors and providing enrichment programs to educate and develop a deeper appreciation of the Florissant Fossil Beds. Gary Censoplano and our two Scientists in the Parks interns, Ashlynn Little and Dale Ligon, engaged hundreds of interested tourists and Teller County residents two times a month at the Woodland Park Farmers Market in June, July and August. This continues to be a valuable outreach where the Friends can lend support.

Art in the Park was staffed by Friends' volunteers Michelle Melville-Speck, Cheryl Petersen and John Schwabe. Enthusiastic visitors participated in artistic projects that the visitors could take home. The projects combined art and education with no previous experience required. Additional volunteers for next summer are encouraged to contact Michelle Melville-Speck through the Friends' website: <a href="www.fossilbeds.org">www.fossilbeds.org</a>. The time commitment is approximately 3-4 hours one to two times per month.

Our all-volunteer board is actively seeking volunteers to provide legal, financial and grant-writing expertise from our larger Friends' membership. If you, as a Friend, have skills setting up a legacy donor fund or would enjoy providing new educational offerings through the Friends year-round, you are more than welcome to join our mission. Currently more than a dozen board members are passionate about our local National Monument and would appreciate your input. The time commitment is flexible, with only one two-hour board meeting expected per month via zoom or occasionally in person. Assumption of additional responsibilities is under the volunteer's control. If you have the energy and some type of expertise that you feel you can contribute to our effort, please reach out to Patty Glatfelter via the <a href="www.fossilbeds.org">www.fossilbeds.org</a> website to explore your options. Let us get to know you and see if it would be a good fit. It can enrich your life and the vitality of the Fossil Beds. Volunteerism is what keeps the National Park System engine running nationwide.

# **Newsletter Opening!**

The Friend's Board wishes to thank Troy Ruiz for the amazing job he has done with our newsletter for several years. Each issue is better than the last. We wish Troy well as he leaves the newsletter editor's position. We hope that all he is planning on doing will be fun and fulfilling.

The Friend's Board is now looking for a new editor. Troy is willing to mentor someone as to how he has produced the newsletter over the years. If there is a member out there who would like to help, please contact Sally McCracken at <a href="mailto:sammckind@aol.com">sammckind@aol.com</a>.

# Dr. Herb Meyer Retires from the Florissant Fossil Beds National Monument on July 31, 2023.

On Saturday, July 1st, the staff from the Florissant Fossil Beds and the Friend's Board hosted a retirement party for Dr. Meyer. During the party, many tributes were paid to Dr. Meyer including an announcement from the interim Superintendent, Dr. Nick Famoso, stating that the Paleontology offices in the lab area and offices of the Paleontology division at the Visitor Center were dedicated in honor of Dr. Herbert W. Meyer on his retirement as the "Herbert W. Meyer Paleontological Research Center."

Below is a National Park Service article detailing Dr. Meyer's illustrious career.

# Fifty Years of Adventure in Paleobotany: A Tribute to Herb Meyer



National Park Service

ARTICLE • PARK PALEONTOLOGY NEWS - VOL. 15, NO. 1, SPRING 2023

# Fifty Years of Adventures in Paleobotany: A Tribute to Herb Meyer

Florissant Fossil Beds National Monument (https://www.nps.gov/flfo/)

Conni J. O'Connor, Museum Technician Florissant Fossil Beds National Monument, Colorado





#### Introduction

In the spring of 1994, Herb Meyer contemplated his future. He had just completed an employment application while sitting in a camping chair on an alluvial fan in Death Valley. The application was for the newly created paleontologist position at Florissant Fossil Beds National Monument. However, his journey to becoming Florissant's first Paleontologist began years earlier.

### The Early Years

The way Herb tells it, his interest in geology began in Salem, Oregon while in fifth grade as he was starting a mineral collection. His teacher, Mr. Mulkey, read a book to Herb's class. The book was a fictional story about a boy who went to a place called Camp Hancock, a science camp sponsored by the Oregon Museum of Science and Industry (OMSI) located in what is now John Day Fossil Beds National Monument. It was only later that Herb became aware that Camp Hancock was a real place where kids interested in geology could actually attend, and, by high school, he attended Camp Hancock and collected his first fossils in the summers of 1969 and 1970.

As a high school sophomore and a member of the Mineral Minors club, Herb and other members traveled to the "Lyons" locality in northwestern Oregon to collect fossils. This led him to choose the Oligocene Lyons flora as his project when he became a member of the OMSI Student Research Program since he already had a fossil collection and wanted to build it up, do the research, and describe it. Thus, this work—started in 1970, his junior year of high school—marked the first of Herb's paleobotanical endeavors.

After that first collecting trip, Herb and future University of Florida Curator of Paleobotany Steve Manchester returned to the Lyons locality many times. Steve was Herb's "field assistant" a lot during those trips. They would drive there in Herb's dad's pickup and then climb up a steep hill to their fossil locality. In the beginning, Herb didn't really pay attention to all the poison oak and dearly paid the price.

Following some lessons learned, part of the protocol was no splitting onsite because that was just too much time being exposed to poison oak. The whole objective was to climb up there, get big blocks, put them in flour bags, and tie them tightly. Herb would pack a can of bright red spray paint to make the outside of the bags visible. Once the bags were packed and painted, they were tumbled down the hill into a thicket of maple and – of course – poison oak. The second part of the trip was going down to the bottom of the hill, trying to find all the bags, and then carrying them over to the truck. After returning home, the final step was splitting boulders with a hammer and chisel to find the fossils. Most of the exciting fossil discoveries of mysterious plant parts were made on the cement steps in the back of Herb's house.

By 1971, there were two National Science Foundation-funded student research teams set up at Camp Hancock; one for paleontology and one for archaeology. Naturally, Herb joined the paleontology team. During his second year in the OMSI Student Research Program, Herb was encouraged to submit the project report he was writing to the nationally recognized Westinghouse Science Talent Search. Though thousands of applicants applied, Herb was in the top 40 and was chosen to travel to Washington, D.C. for the final competition. This triggered a media storm, and Herb found himself pictured on the front page of the Salem Oregon Statesman on his 18th birthday.

Then, in the summer of 1972, he had his first paid job in paleontology, working as an assistant on the student research team for OMSI in the Ochoco Mountains searching for ammonites. This experience would anchor his 50 years of employment in paleontology.

The Oregon Department of Geology and Mineral Industries invited Herb to publish a condensed version of his Westinghouse submission in the monthly *Ore Bin*. That would be his first publication, which came out a year later in 1973. Theoretically, there was a trophy and more that would be presented to the Westinghouse Science Talent Search student at their high school graduation. But Herb never went to his senior graduation. He graduated early and started at Portland State University.



HERBERT MEYER

# Salem Youth Gains Finals

A 17-year-old Salem student who has conducted intensive research on early fossil remains in Oregon has been named finalist in a prestigious national science competition.

He is Herbert W. Meyer, son of Mr. and Mrs. Arnold W. Meyer, 5495 Center St. NE. An advanced science student, he completed graduation requirements at North Salem High School at midterm and has been attending Portland Sate University.

He also is active in the student research center of Oregon Museum of Science and Industry in Portland.

A long time interest in paleontology, the study of past geological periods through examination of fossil remains, has led him to summer field work in Northwest Oregon.

He has collected some plant species that he believes to be unknown and hopes to name them himself.

Meyer was among 40 high school seniors, selected from a field of 14,000 participants, who won trips to Washington, D.C., in March to compete for scholarships and other awards sponsored by the Westinghouse Science Talent Search program.

Figure 1. Statesman Journal, Salem, Oregon. February 3, 1972.

### The College Years

Herb was a geology student at Portland State for two and a half years. Then, in 1974, renowned paleobotanist Jack Wolfe asked if he wanted to be a Physical Science Technician with the US Geological Survey in Menlo Park, California starting in July 1974. Herb accepted the invitation. He took a year off of school to work on cleared leaves (modern leaves that have been chemically processed to make their venation patterns more visible) and transferred to the University of California Berkeley, which had the nation's only Department of Paleontology, where he would spend the next eleven years.

Herb completed his undergraduate degree in December 1976, then went on to continue as a graduate student from 1977 through May 1986. He earned a Master's degree looking at fossil pollen, and continued working towards a PhD. Bill Berry, the former director of UC Berkeley's Museum of Paleontology, later coined this time as Berkeley's "Golden Age of Paleontology". If you ever mention other paleontologists in passing while talking to Herb, more than likely they went to grad school at Berkeley at the same time as he did.



Figure 2. Harry MacGinitie, Jack Wolfe, and Herb Meyer at Berkeley circa 1980. Photo from the University of California Museum of Paleontology Archives.

Initially, Herb started working again for the USGS as an opportunity to begin his dissertation project on the paleoelevation of fossil floras from the Rio Grande Rift area, which would include Florissant. Unfortunately, budget cuts forced him out of USGS and into the classroom as a T.A. and Graduate Student Instructor where he taught paleobotany, introductory paleontology labs, and undergraduate seminar classes, among others. Herb's graduate advisor, Wayne Fry, always selected Herb to be the Teaching Assistant, which Herb loved doing.

It was while working on the cleared leaf project that Herb first met Harry D. MacGinitie, or "Mac" as he was known to his friends, who had published the 1953 monograph Fossil Plants of the Florissant Beds, Colorado. Mac had been on the faculty at Humboldt State in northern California and after retirement moved to Napa, just north of Berkeley, with his wife, Bea. As a Research Associate, Mac would visit campus once or twice a month, arriving in the morning and heading back to Napa mid-afternoon. During this time, Herb got to know Mac and another paleobotanist, Howard Schorn, talking about all kinds of topics and, of course, fossil plants. In a letter (FLFO archives) to Estella Leopold in 1979, Mac wrote "I have a young friend who is a graduate student ... in paleobotany. He is a good and capable lad ... and does good and reliable work."

Mac became a mentor of sorts and although he wasn't on the committee, he reviewed Herb's dissertation, which substantially disagreed with his own interpretation of the paleoelevation of Florissant. However, Mac wasn't one to become caught up in his own dogma; he was a very open-minded scientist. Mac saw the internal logic of what Herb had done, the methods used made sense to him, and Herb's results followed that logic. Even though he didn't necessarily agree with it, Mac could see where Herb was coming from. Right around the time Mac turned 90, Howard and Herb drove to Mac's house to pick up Herb's dissertation. This was the last time Herb saw Mac. He passed away the year after Herb finished his dissertation. Herb says if he could go back in time, he would tell Mac "Hey! Look where I ended up!"

#### The VW Years

After grad school, Herb got a used VW van and traveled extensively throughout western North America from 1986 to 1994, including one trip he calls "The Great Rocky Mountain Odyssey of 1988". However, from 1990 through 1992, he was a postdoc at the University of Florida Museum of Natural History. Herb collaborated again with Steve Manchester, who had been newly appointed as a faculty member at UF, and returned to his old stomping grounds in central Oregon. For two years he and Steve studied the Oligocene flora of the John Day Formation, which was eventually published as a monograph in 1997 by the University of California Press.

While traveling, Herb would periodically take breaks. It was during one of those breaks in 1994, while teaching an Elderhostel course (a learning program for older adults) on geology, that he heard there was a position opening at Florissant Fossil Beds National Monument. Florissant was appealing because of his interest in plant community and climate change during the Eocene-Oligocene transition period. Herb contacted the Monument and spoke to Chief Ranger Maggie Johnston, who put his name on the list, and Administrative Officer Sheryl Sether, who mailed an employment packet to his home in Salem. Herb's mom would gather any mail received and send it general delivery to a post office at his next destination in anticipation of his arrival. Herb picked up his package and headed for Death Valley. On a warm spring day, he got out his camp chair on a remote alluvial fan and filled out the employment application. He always had his CV and other important documents in a file folder with him. The next day at the little general store in Shoshone, California, which also happened to have an official post office located in the back, Herb mailed the application, making sure the postmark date was clear.

One of the other things that was happening that spring was a special symposium and field trip about Florissant organized by Emmett Evanoff and Kate Gregory at the Rocky Mountain Section Meeting of the Geological Society of America held in Durango, Colorado. A portion of the presentations dealing with aspects of Florissant flora were later published in volume of the *Proceedings* of the Denver Museum of Nature & Science. One of those presentations was Herb's about the paleoelevation at Florissant, which was part of his dissertation. During the conference, he camped with Steve Manchester and sat in the audience next to Ted Fremd who was the Paleontologist at John Day Fossil Beds National Monument. Herb spoke to both about the Florissant position.

After the conference, Herb left Durango and headed to New Mexico. During a resupply trip to Santa Fe, he found a payphone. Herb called his answering machine back in Salem to pick up any messages. There was one message from Steve who said that he had been contacted by Dale Ditmanson, the Superintendent at Florissant. Encouraged by this news, Herb went grocery shopping. On his way back to the van, he decided to check his answering machine again. Another message. This one was from Dale asking to do an interview. He dialed the number left on the message. Standing in a supermarket parking lot worrying about the rapidly melting ice cream in the cart he was holding, Herb interviewed for the Florissant position.

A couple of days later after heading north, Herb checked his answering machine again. Another message from Dale. Dale's wife answered the phone and said Dale was mowing the lawn. Herb waited for a bit while Dale was summoned from the backyard. After Dale picked up the receiver, he offered Herb the position. Herb thought it was unusual that any kind of position would be offered before meeting the potential candidate. They agreed on a date and time to meet in Colorado. During that meeting, Dale gave Herb a very short deadline for accepting the position.

Driving west after the meeting, Herb thought he should get more information about what it was like working for the NPS as a paleontologist. He stopped at a payphone in Hartsel and called Ted at John Day. Ted, of course, was encouraging about the position. Herb's mind was at ease. His next call was to Dale. Herb accepted the position as the first permanent Paleontologist at Florissant Fossil Beds National Monument.

Herb didn't have much time to get back to Oregon and pack up his life. He wanted to get a feel for what he was about to start and was able to gather input from other NPS paleontologists at the time. On the way west, Herb met with Ted at John Day Fossil Beds National Monument, Greg McDonald at Hagerman Fossil Beds National Monument, and Dan Chure at Dinosaur National Monument. Having started in 1992, Greg was still very new. Dan seemed very comfortable and happy in his position, and so did Greg. Both Ted and Dan had been with the Park Service for years. They were the ones who started paleo positions in the NPS, and always jokingly argued about which of them came first. After several weeks in Oregon, Herb headed east again.

#### The Florissant Years

Herb's start at Florissant Fossil Beds National Monument (FLFO) on August 8, 1994, could be described as the right place at the right time. During his first couple of months, a volunteer found mammoth chunks emerging from a ground squirrel mound, the Monument celebrated its 25-year anniversary, and the Conference on Fossil Resources was held in Colorado Springs.

During the next 28 years, Herb developed the Monument's paleontology program. There hadn't been any major excavations since MacGinitie's in the mid-1930s. Herb's first focus was building the collections. With major excavations in 1995 through 1999, the collections grew from 584 to 4,588 specimens. The last major excavation during the summers of 2009 and 2010 added another 4,877 specimens. To date, the paleontology collection contains more than 13,200 specimens.



Figure 3. Collecting fossils in the Antero Formation in 2007. NPS photo.

In 1996, Herb initiated a survey of all the published specimens from Florissant. He traveled to over 15 major museums throughout the United States and in the United Kingdom. Approximately 6,000 specimens were inventoried by Herb and other staff and took over 5 years to complete. The data collected would later culminate in an online database.

The word "database" was not in Herb's vocabulary when he started at Florissant. However, Ted was using "Idealist" at the time and guided Herb through the arduous process of developing a relational database with the survey data. Eventually, the completed database would be published on the NPS website and accessible to everyone. Being the visionary that he is, Herb knew the NPS would eventually find something that didn't comply either with the database or the website, which ultimately happened. He spoke to Dena Smith, Curator of Invertebrate Paleontology at the University of Colorado Museum of Natural History, with whom he had worked during her dissertation on plant-insect interactions in fossils from Florissant and they came up with a plan to ensure its longevity. Years later, the database would be accessible on two websites for a time, before the NPS site was deactivated, when it was transferred to the University of Colorado at Boulder where it remains today as a searchable collection (https://flfosearch.colorado.edu/). Herb and Dena would collaborate many times over the years, including the 2008 GSA Special Paper Paleontology of the Upper Eocene Florissant Formation, Colorado as editors.

Returning to Colorado from one of his museum trips, Herb looked out of the airplane window and started thinking about all the

data he had gathered. There was so much information. What else could be done with it? He decided to write a book. Besides brochures given to visitors, not much had been written about Florissant for the general public. By the time his flight landed in Colorado Springs, Herb knew his next project would be available to an even broader audience. Trying to come up with a title, he was inspired by the book Derek Briggs had just published through Smithsonian Press, The Fossils of the Burgess Shale. In 2004, The Fossils of Florissant, also published by Smithsonian Press, would be a finalist in the Colorado and the West category of the Colorado Book Awards. It would be five years before Herb would get the itch to start writing another book. Published in 2012, Saved in Time: The Fight to Establish Florissant Fossil Beds National Monument was co-authored with Estella Leopold, who, by this point, Herb had known for decades. Estella was a key advocate for the Monument's designation in 1969 (coincidentally, during the same summer Herb first attended Camp Hancock).

Before Herb's time at Florissant, one of the early Superintendents decided that the historic Hornbek Homestead, an interpretive structure, should be the main focus of the Monument's interpretive program because "[they] didn't think people would be all that interested in the fossils". Herb worked to turn around this emphasis on the homestead story by bringing prominence to another homesteader, Charlotte Hill, who actually made scientific discoveries in her backyard. In the 1870s, Charlotte and her husband Adam moved to Florissant. Charlotte's contributions were documented in the collection records of multiple museums, but she wasn't brought to Florissant's forefront until Herb came on the scene. During an interpretive planning session at the Florissant Library, volunteer David Atkins pointed out Charlotte's importance. He strongly made the point that she needed to be a part of FLFO's interpretive story. That sparked something and Herb remembered Mrs. Hill/Charlotte Hill recorded as the collector for specimens at the Smithsonian, Princeton, and Harvard collections. He searched through the newly developed database to find at least 167 of the plant type specimens alone had been collected by Charlotte. Her story is currently featured in seasonal training to Monument employees, throughout exhibits, and many websites. In 2009 Charlotte's relatives among others were invited to FLFO to celebrate her 160th birthday. Although past searches to find her house have been unsuccessful, a 2018 archeological survey of the west side of the Monument uncovered the remains of a small structure where pieces of shale, amazonite, and smoky quartz fell

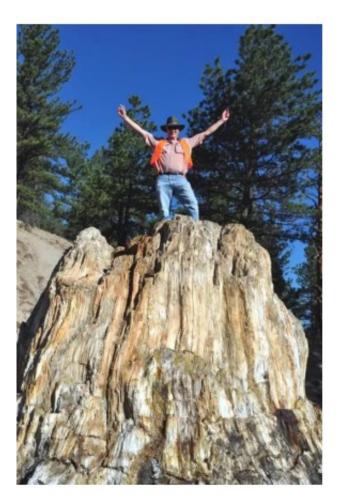


Figure 4. Stump Research in 2012. NPS photo.

through the floorboards. This may have been a roadside stand where natural objects were sold. Without Herb, Charlotte's story may never have been told.

Herb has always felt strongly about international collaboration and how it plays into conservation, science, and designation of sites for protection. He has completed a multitude of domestic and international research projects and 16 official NPS international trips to nine countries on four continents. International trips through the NPS are virtually unheard of due to funding and administrative hurdles. One of the workarounds Herb is quite thankful for is support provided through the Friends of the Florissant Fossil Beds. The Friends are dedicated to providing assistance "...to projects that preserve the fossils of Florissant, as well as to organize and promote programs and activities that support the Monument's educational, conservation, and scientific research objectives." They have always supported (funded) research and conference travel all over the world. The group has als: supported outreach that promotes geoheritage. Sexi, Peru is the home of petrified wood and fossilized flora from about the same time and elevation as Florissant. Herb has traveled there six times with close collaborator Deborah Woodcock from Clark University and published 14 research articles and abstracts.

As the fossil survey and database proved years before, little things can lead to bigger ideas. An interpretive geologic map completed in 2014 led to the installation of a new Geologic Trail and its trail exhibits, which culminated in the "Florissant Explorer" mobile application published in 2022 that ties everything together by providing multiple user levels of content. In 2012, a new Visitor Center was just beginning construction and its exhibits were in development. Herb was not pleased with the original design of the exhibits. Fictitious "Dr. Stone" and "Buzz" (a cartoon wasp) were being used as illustrated guides throughout the exhibit and he thought they brought the content's education level lower than what he wanted to see. Herb wanted to increase the scientific depth of the content, which meant a complete rewrite of half of the exhibits. An inspired conversation in a supermarket parking lot led to featuring nine historical and modern scientists and their research in the new Visitor Center, including Herb.

Undoubtedly, the intern program is one of the most memorable and important contributions Herb has made to the Monument. Herb recognizes that many of the projects at Florissant could not have been accomplished without the hard work of the mostly female interns and museum technicians. He has helped 73 of them with their paleo careers and takes pride in what they accomplished during their time at Florissant. For many interns who went on to graduate school following their time at Florissant, Herb participated in their graduate thesis committees and continues to serve as a mentor to this day. Herb was even instrumental in identifying the need and establishing the first permanent Museum Technician position at Florissant.

#### The Retirement Years

Herb is retiring at the end of March, but he's not exactly leaving. This summer marks the most approved geology and paleontology research permits FLFO has seen at the same time. His title will change to Paleontologist Emeritus, which he hopes sets a precedence for future retired NPS paleontologists. Herb will also become a volunteer at the Monument because there's no clear breaking point where his current projects will be completed. He will continue to be adjunct faculty at the University of Colorado Boulder and involved with graduate committees. He is eager to travel and is currently planning a trip to New Zealand in November. He is also overjoyed at the prospect of camping during weekdays.

The future of paleontology at FLFO weighs heavily on Herb's mind. The establishing legislation of the park in 1969 clearly indicated that a paleontologist was to be hired in the first year. The NPS neglected in its first 25 years to fulfill one of its congressionally defined mandates. Herb feels that FLFO's Paleontologist position is critical to achieving the ongoing, original legislative mandate that was published by Congress. For continuity, he also feels that the Monument shouldn't tarry in their search to fill the position.

Herb is proud of everything he has accomplished and all of his contributions to Florissant Fossil Beds National Monument. As he reminisces on his NPS career, Herb still clearly remembers how his journey began on an alluvial fan in Death Valley.

#### Author's note:

I started volunteering at Florissant Fossil Beds National Monument in July 2010. Obsessed with dinosaurs at an early age, volunteering was the only way I knew to get involved with any type of paleontology activity after moving to Colorado. That year was the second of a large, student-driven research excavation and I was so excited to finally get the chance to find fossils. Most days, there were six of us chattering away while splitting shale. The only time it settled down was when Dr. Meyer joined us.

Nobody really knew anything about him until the day I started asking questions. Everyone was quiet as he patiently answered all of them. After he left, someone stated that was the first time he really talked about himself.

After what I like to call my "six-month interview", I was officially hired at FLFO in December 2010. The temporary Museum Aide position required a minimum number of college credits per semester to keep the position. Needless to say, between family, school, and work, I was busy. At the end of 2016, my position was unexpectedly eliminated due to neglected paperwork. Thankfully, I was hired to my original position in January 2017 and will never forget the phone call "interview" from Dr. Meyer cheekily asking if I was still interested in the position. I finally earned a B.S. in Biology in May 2019 and, thanks to the position Dr. Meyer helped to establish, started on September 1 as the first permanent Museum Technician at FLFO.

Dr. Meyer has given me support, advice, and been a part of tons of memories. He has been my supervisor and mentor, and he's always been a great friend. My husband Tom and I have hosted many holidays over the years with Dr. Meyer as our guest. My soon to be 15-year-old son Saigg has known him since he was two. Dr. Meyer's first experience with a two-year old was at DMNS where we had traveled with that summer's interns for a presentation by Kirk Johnson, now Sant Director of the Smithsonian Museum. During a trifecta of overstimulation, no nap, and hunger, Saigg demanded a piece of gum loud enough and long enough that Kirk stopped his presentation and glared in the direction of the offending noise from the audience. Red-faced, I sheepishly told Kirk we were good, and he resumed his talk. A couple of minutes later, I packed up and hurriedly followed a giggling toddler out of the auditorium. Dr. Meyer told me afterwards that he was glad we weren't sitting together, thus saving him some embarrassment. I saw Kirk at a conference early the next year and mentioned that I may owe him an apology. He looked quizzically at me and asked, "For what?" I asked him if he remembered a kid screaming at his presentation the previous year. Kirk's eyes widened and he laughed, "That was you?!?" I apologized and later admitted the confession to an embarrassed Dr. Meyer. Somehow, Saigg has been forgiven.



Figure 5. Saigg and Dr. Meyer in 2015. Photo by Conni.

At a conference in 2012, someone once commented, "I think it's great that you still call him Dr. Meyer." Lindsay Walker, a quickthinking former intern replied, "I'm pretty sure 'Dr. Meyer' is on his birth certificate." Since our first meeting, I've called him Dr. Meyer. Changing now would be like calling my elementary and high school teachers by their first name.

Even though he's said many times to call him Herb, for me he'll always be Dr. Meyer.

# Summer Astronomy - Florissant Fossil Beds Night Sky

By Mark Harter, FLFO Volunteer Ranger, Astronomy Lead

Summer is one of the best times to view the night sky because there are so many wonderful seasonal astronomy opportunities of which to take advantage. Plus, the warmer summer nights make it much more enjoyable than those cold January nights! All of this rings true, especially for summer astronomy at the Florissant Fossil Beds National Monument, and we have two recent exciting activities to share with the Friends readers!

First, we finally had a clear night of astronomy viewing on July 21 for our monthly FLFO Night Sky program with the Colorado Springs Astronomical Society (CSASTRO). After four straight months of cancellations due to inclement weather (highly unusual), the weather offered clear skies (a few early clouds and distant lightning to contend with). There was an estimated public crowd of 320 people, with 12 CSASTRO telescopes and astronomers in the FLFO parking lot. This was the largest crowd FLFO has had in the post-pandemic era (since 2019)! A great time was had by all viewing the summer classics including the rich celestial objects in Sagittarius, the Summer Triangle (Deneb, Altair, Vega), Leo, Cassiopeia, Andromeda Galaxy, planets (Mercury, Venus, Mars), a couple of fast-moving satellites, and some shooting stars. Overall, a pretty good night, and we hope to repeat it on our next public FLFO Night Sky program on August 19. Please come out and join us!

Second, August 12-13 was the peak of the annual Perseids Meteor Shower, the biggest meteor shower of the year. Perhaps some of you were able to get to a dark sky to witness this yearly spectacle of meteors entering the earth's atmosphere as debris from Comet Swift-Tuttle, which look like fireballs (also called 'shooting stars'). Technically, the Perseids Meteor Shower is active from mid-July through the end of August, but it peaks around August 11-13 as the Comet Swift-Tuttle passes closest to Earth on its approach around the sun. It was a new moon during this time which provided dark sky background, with the best views from midnight to sunrise on each of those nights, and some reports of 50-75 meteors sighted per hour. Florissant and Teller County are in a prime position to view the Perseids because of our mid-latitude location and high altitude which reduces atmospheric hazing and light pollution. If you missed the Perseid Meteor Shower peak, you can still see some meteors through August (just not as many or as bright, and at a reduced rate). From a historical perspective, the 1971 Perseid Meteor Shower inspired John Denver to write the song 'Rocky Mountain High', which references the Perseid Meteor Shower in the chorus, "I've seen it raining fire in the sky". The song, of course, went on to be a Gold record, and in 2007 the Colorado General Assembly made it Colorado's official song. For planning purposes, the next major meteor showers this year are the Orionids (October 20-21) which are a medium-strength shower of 10-20 meteors per hour, and the Leonids (Nov 17-18), which some years can produce major shower strengths.

-----

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

### Rendezvous

Florissant Fossil Beds National Monument, Colorado

By Steven Wade Veatch

Returning to the massive stone stump, among the quaking aspens and green pines where pasque flowers floored the forest, I counted tree rings of stone—survivors.

As the birds sang and squirrels chattered, the moment bloomed into an alchemy of time—a rendezvous of the primal past with the afternoon's warm present. In a blaze of thought I wondered what mark will I leave behind?



The "Big Stump" at the Florissant Fossil Beds National Monument. Photo by S. W. Veatch.

# **Record-setting Sales for the Bookstore**

By Linda Dolven, Rocky Mountain Conservancy

The late summer is here and fall season is coming. The Florissant Fossil Beds Bookstore has had record-setting sales for 2023. Rocky Mountain Conservancy supplies our bookstore and others in Colorado and Wyoming with unique merchandise that is not available in other retail stores. These items include many that are specific to each individual location and after the sales, RMC then returns a percentage of the received funds to their bookstores as direct financial aid.

We do have a large order in for delivery in the coming weeks to replenish what has been sold. A new shipment of night sky items: coffee mug, beverage (wine) tumbler, gaiters, bandanas, and socks. There is a broad selection of night sky t-shirts and hoodies in stock. Dr. Meyer's paleo books are always on our shelves along with a wide selection of geology books and an excellent selection of National Park books and games. Park ranger trucks are available on one of our tables.

The bookstore has ordered and will receive a new shipment of field guidebooks for identifying birds, wildflowers, trees, mammals, fish, and Scats and Tracks books. A new shipment of Hiking Sticks for added safety along our trails will soon be available. A couple of the latest items in our store are hand puppets and mini building blocks (they are adorable!). Finger puppets, puzzles, Wild Tribute Butterfly, and Stump multicolored Tee shirts are still available and selling well. Wild Tribute gives back 4% of the sales of the t-shirts to the Monument

Please stop by soon to see our merchandise and all our little treasures inside the visitor center at the "Fossil Beds". Christmas is just around the corner. Thank you so much for your continued support.







# **Colorado Springs Mineralogical Society Donates to the Friends**

On June 9, 2023, the Colorado Springs Mineralogical Society presented the Friends of Florissant Fossil Beds Board with an \$800 check to help support Florissant Fossil Beds National Monument interns this summer. A big thank you to the Colorado Springs Mineralogical Society Board members for their support. During the Colorado Springs Mineralogical Society General Assembly on July 20, 2023, Florissant Fossil Beds GIS interns Ashley Martinovich and Paityn Schlosser are the program speakers. Their program will be on their summer project of re-mapping portions of Florissant Fossil Beds.

Each year, the Colorado Springs Mineralogical Society invites our Board and the Florissant Fossil Beds NM park service staff to set up an informational table during their annual Pikes Peak Gem, Mineral, and Jewelry show. It is an excellent opportunity for us to share information with the public and provide educational exhibits and displays related to the Fossil Beds. This year's show mineral was copper and the venue was Norris Penrose Event Center.

The Friends of Florissant Fossil Beds were set up in the educational area with many children's activities. Some of the many activities were mineral/crystal, fossil and rock digging, gold panning, and fossil puppet making. The Friends of Florissant Fossil Beds provided a table of plastic embossed fossil templates to do etchings including replicas of some of the many fossils found at the Monument. Both children and the parents got to sit and relax while creating a Master Piece for their refrigerator.



#### Art in the Park

A loud shout out for Cheryl Petersen, Michelle Melville-Speck and John Schwabe(Friends Board Members) for re-establishing the Art in the Park program at the Florissant Fossil Beds National Monument. The program had been established Prepandemic, organized by local NPS volunteers. It was quite successful for several years. The program stopped operating during the covid closures.

Re-stablishing the program was a way the Friends of Florissant Fossil Beds could contribute a hands-on, outdoor, "nature-based" experience for Park visitors.

Some adults, but mostly children participated in the experience. The Park visitors could do wildlife and leaf crayon rubbings, great for the youngest crowd. Older children did water color and colored pencil fill in drawings of Florissant wildlife mammals and flowers. The wildlife images and sketching were produced by Steve Petersen (photographer) and Michelle Melville-Speck (artist). The images printed on cardstock were well received and turned into nice art works for the visitors. After date stamping them in the Visitor Center, the young artist had a nice souvenir of their time at the Fossil Beds. We are sure the images will be used for years to come by Park Interpretative staff.

The program was twice a month, Wednesdays 9:30 am until Noon, June through August. The average number of participants was 15-18. Special thanks for interns Ashlyn and Dale helping with the set-up and take down.

We are in the process of evaluating the program, reaching out for more volunteers, and better communicating to summer youth camps with greater publicity. If you are interested in helping with this endeavor, contact John Schwabe, 719-689-3174.

# **Volunteer Trail Crew Update August 2023**

The volunteer trail crew has ben busy this Summer. The small but dedicated crew is Ruth Gulliver, Corky Capps, Mark Silas and John Schwabe. With other volunteers The Volunteer Trail Crew has been functioning since 2010.

Most of the trail work has been removing older water bars anchored with rebar, on the Saw Mill and Hans Loop Trails. With guidance and help from NPS Maintenance Staff (Parker and Sydney), the crew has been replacing the timbers with hardened native soil and decomposed granite gravel structures called rolling dips. They are not easily constructed, requiring a lot of pick and shovel work and trail tread grading.

The rolling dips are angled, linear and crescent shaped with wide drains which will require less yearly maintenance. They are easier to walk on and remove the tripping hazards from exposed rebar.

The crew is brushing the trails, removing small dead trees and removing any trip hazards. These include larger loose gravel, roots, rock and overhead limbs. Hikers will notice the timbers that were replaced are next to the trails and will be removed when the project is completed this Fall.

This and similar work will continue through early November. If you are interested in volunteering with the crew our hours are 9 am to Noon on Thursdays. Contact John Schwabe 719-689-3174

# Friends Host Exhibit at Biennial WIPS Symposium

The Friends hosted an exhibit at the 12th Founders Symposium of the Western Interior Paleontological Society (WIPS) held at the Colorado School of Mines on March 25-26, 2023. The symposium is held every other year, bringing together expert paleontologists and fossil lovers to share information and learn about paleontology. This year's symposium, titled "Mammals! From Mini to Megafauna," featured 12 speakers who covered topics such as mammal evolution and ancient mammalian ecological diversity on species ranging from megaherbivores to bats, dogs and whales. The symposium also included a poster session, a variety of exhibits and displays, and a paleo art show and sale. The Friends exhibit featured display fossils from Florissant Fossil Beds, including pieces of petrified wood, ancient plants and insects preserved in shale, and replicas of jaw bones from mammals oreodont, mesohippus and brontothere. Monument Intern Hilary Cepress-McLean also demonstrated the methods she is using to prepare museum specimens for an upcoming move.



Caption for photo (attached separately): FLFO paleontology intern Hillary Cepress-McLean speaks with WIPS symposium participants at the Friends exhibit table.

# Donation Corner — January 1st - June 30, 2023

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.

| Christine                                 | Brand      | Clinton Cor-<br>ners | NY |
|---|------------|----------------------|----|
| Joseph and Lois                           | Cancellare | El Paso              | TX |
| Colorado Springs<br>Mineralogical Society |            | Colorado<br>Springs  | СО |
| David and Carolyn                         | Hibner     | Florissant           | CO |
| Lake George Gem and Mineral Club          |            | Lake<br>George       | O  |
| Deborah                                   | Woodcock   | Lexington            | VA |
| Thomas                                    | Henry      | Pennellville         | NY |
| Thomas                                    | Wylie      | Centennial           | СО |

# From Our Interim Superintendent, Nick Famoso: My Journey from Oregon to Colorado as Acting Superintendent

Normally, I am the Paleontology Program Manger and Museum Curator at John Day Fossil Beds National Monument (JODA), a position I have held since 2016. I have a BS in Geology from South Dakota School of Mines and Technology, a MS in Geological Sciences and a PhD in Earth Sciences from University of Oregon. I have worked for five different museums in my career. I am a vertebrate paleontologist but have recently been researching fossil plants and insects in addition to trackways. This spring and summer I had the opportunity to come to Florissant Fossil Beds as the acting superintendent to fill in for Penny Wagner while she was on extended leave. I have had to be acting superintendent at JODA on a few occasions, but never received formal recognition for doing so. As such, the Florissant Fossil Beds opportunity provided me with a way to not only get real proof of taking on these responsibilities, but also a little bit of a pay raise! While I was at the park (May - July 2023) I experienced a lot of different needs from my regular job at JODA,



but also many different natural events than I was expecting. While I was at the park, I saw a 3-day power outage caused by a snowstorm, a bear by the visitor center, multiple thunderstorms, hail, tornado warning, and on my last day... the Fossil Beds Fire. I learned how a fees program works, and I got to work on several administrative tasks and help keep things on track. I saw Dr. Herb Meyer off on his retirement, which was an honor. I also had the chance to get to know many members of the park team and the wonderful volunteers and especially the Friends. JODA has a small volunteer community and no Friends group to speak of. Our equivalent of RMC (Discover your Northwest) fills in these gaps as best as they can, but it is hardly the same as a group like the Friends. My dogs and I enjoyed our time in Colorado but it is also great to be back home, even though the fires in the west have created grey skies. Thank you all for the opportunity to get to work with you all and I hope that our paths will cross again.

The Friends wish to heartily thank Dr. Nick Famoso for all he did in his time as Acting Superintendent. We welcomed Penny Wager back on July 31<sup>st</sup> from her maternity leave.

# The Amphitheater

The Amphitheater Is a unique spot at the Monument. Located off the Ponderosa Loop it needed some TLC. Parker Severson, with the help of the volunteer Trail Crew, designed a new layout and with some significant updates.







