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# Friends of the Florissant Fossil Beds eNewsletter

Every Fossil Needs a Friend

#48-August 2021

## Florissant Fossil Beds Certified as an International Dark Sky Park

June 9, 2021 – The National Park Service and the International Dark Sky Association are pleased to announce Florissant Fossil Beds as an International Dark Sky Park. This certification recognizes the exceptional quality of the park's night skies and provides added opportunities to enhance visitor experiences through astronomy -based interpretive programming. "We are pleased to be able to provide opportunities for the public to experience the wonders that dark skies provide. The Monument is uniquely located. It is within a reasonable driving distance of a large urban area, yet far enough away and tucked behind some mountains that block urban light pollution" said Therese Johnson, park superintendent.

The park was supported through the certification process by many partners with a majority of support coming from the Colorado Springs Astronomical Society (CSAS). "This is a wonderful achievement to open our nearest National Park Service site to a greater depth of nature experience - from Stumps to the Stars! We are opening the big dark skies under one of our smaller National Park Service sites. CSAstro is proud to continually support "Star Party" events with the excellent National Park Service team," said Bruce Bookout of the Colorado Springs Astronomical Society. Florissant Fossil Beds will continue to work with our partners and others on future dark sky visitor experiences.

The International Dark Sky Places Program was founded in 2001 as a non-regulatory and voluntary program to encourage communities, parks, and protected areas around the world to preserve and protect dark sites through responsible lighting polices and public education. Florissant Fossil Beds now joins more than 100 locations that have followed a rigorous application process that demonstrates robust community support for dark sky certification.

About the National Park Service: More than 20,000 National Park Service employees care for America's 423 national parks and work with communities across the nation to help preserve local history and create close-to-home recreational opportunities. Learn more at <a href="https://www.nps.gov">www.nps.gov</a>.



About the International Dark-Sky Association: IDA's mission is to preserve and protect the nighttime environment and our heritage of dark skies through environmentally responsible outdoor lighting. Learn more at www.darksky.org.

#### **Annual Meeting**

The Friends of the Florissant Fossil Beds are planning our Annual Meeting for Saturday, October 15th. Please watch for more information on what and how we will present the program.



#### **Seminars**

For the last 27 years (minus one for COVID), the Friends of the Fossil Beds have offered many very interesting and engaging seminars, both full day and short 1–2-hour presentations. We even offered a few short seminars one year in the Springs at the Tutt Science building at Colorado College. Planning and hosting these seminars has been a joy. So, when COVID came along, we went back to the drawing board and decided that we would try offering virtual seminars as many organizations began doing.

So far, we have offered 3 virtual seminars and have learned a lot about doing this. We hope to be able to continue offering virtual seminars throughout the year, every 2 months. The Friend's Board is extremely excited about the newest designation for the Monument as a Dark Sky Park. In celebration of this exciting designation, we will be doing a virtual seminar on Monday, August 23rd at 6 PM. Dave Warner, Director of Educational Outreach for the Colorado Springs Astronomical Society will present a program called Astronomy and Modern Society: Preserving Our views of the World We Live In.

The Friend's Board extends congratulations to the Florissant Fossil Beds NM for 2 years of hard work to receive this designation. As Dave said, "The Fossil Beds has the darkest sky of any of the designated areas in Colorado except for the Sand Dunes NP, even better the Rocky Mountain NP."

Our second offering for the fall will be held in mid-September or October. It will be an in-person seminar (the first since 2019) called Confronting *Deep Time*: Conservation Strategies for the Fossil Stumps of Florissant Fossil Beds National Monument.

We hope to have many of you join us for these 2 upcoming seminars. Have a great fall!

#### Astronomy and Modern Society: Preserving Our Views of the World We Live In

This presentation is a brief introduction to Astronomy and the issues of light pollution. Astronomy is a "gateway" science and one of the oldest sciences known to modern humans. From the earliest recorded times more than 40,000 years ago to modern day, humans have been observing the stars and their patterns overhead. The night sky has been our calendar for religious ceremonies and agriculture, they've given us insights into how the smallest particles of matter are formed and have provided a windowpane for awe and inspiration that drives poetry and fiction for the ages. But in every story, there is a villain and today our nemesis is light pollution. Light pollution is not just a problem for astronomical observing but also has impacts on wildlife, humans and wastes money. We'll talk briefly about these effects and what we can do as individuals and communities to preserve our night skies for all to enjoy.

Mr. David Warner is the Director for Educational Outreach for the Colorado Springs Astronomical Society (CSASTRO) and is responsible for coordinating, scheduling and conducting guest speaking engagements, lectures, star parties, and STEM/STEAM night programs that are engaging, interactive, memorable and fun.

In 2019, Mr. Warner coordinated, scheduled, and conducted over 293 hours of Science, Technology, Engineering, and Math (STEM) outreach and education at 108 separate events for over 15,300 people of all ages at local National Monuments, State and Regional Parks, museums, libraries and within local area schools. CSASTROs mobile and all-volunteer outreach programs provide educational programming to rural and underserved communities throughout a 10K mile geographic area in Southeastern Colorado.

Mr. Warner is also a NASA/JPL Solar System Ambassador, a member of the NASA/JPL Night Sky Network, the Astronomical League (AL), the International Dark-Sky Association (IDA), the Association of Lunar and Planetary Observers (ALPO), and the Academy of Model Aeronautics (AMA).

Mr. Warner continues to serve as a Government Civilian working as a logistics management specialist in the Colorado Springs area with over 30 years of experience in acquisition, logistics, sustainment and operations of satellites, communications terminals, and associated ground control stations. He has associates degrees in Air Transportation, Sociology and Instructor of Technology and Military Science.

Webinar registration link for ZOOM

https://us02web.zoom.us/webinar/register/WN lp5opdyJTWaUedy 6S3d A



## Confronting *Deep Time*: Conservation Strategies for the Fossil Stumps of Florissant Fossil Beds National Monument

\*Date to be Announced\*

This 1–2-hour seminar will showcase the work that is currently underway to develop a holistic strategy to stabilize, protect, and interpret the fossil stumps at Florissant. The project is funded by the National Park Service and is being conducted in collaboration with Frank Matero and his graduate students at the University of Pennsylvania. While deterioration of the stumps is known to have occurred before, during, and after permineralization, significant fragmentation most likely originated with the use of dynamite when the early landowners uncovered them for tourist display. Subsequent weathering, especially freeze-thaw cycling, has caused pieces large and small to spall from the stumps, causing increasing loss and instability. After a comprehensive condition history and examination of all the extant stumps, Stump P47, in the pit below the patio behind the visitor center, was selected for conservation treatment. This summer, after two years of study, lab work, and monitoring, a UPENN graduate team began applying methods to attach the loose fragments and plan for a new shelter/enclosure design. During this event, participants will get a first-hand look at this project as Prof. Matero demonstrates the problems and breakthroughs in developing new approaches to the conservation methods, as well as the need for new shelter designs to provide better protection for the stumps in the future.

Frank Matero is Professor of Architecture and directs the Graduate Program in Historic Preservation at the University of Pennsylvania. He studied at SUNY Stony Brook, Columbia University, and the Institute of Fine Arts/New York University, and received his education in anthropology, architectural preservation, and material conservation. As an educator and conservation practitioner, Matero has shaped architectural conservation in the US and abroad for over 35 years. He has been an Architectural Conservator for the National Park Service at many locations. His research addresses the conservation of historic buildings and sites, and this work is expanding into the realm of paleontology as he applies these principles to conservation of the fossil stumps at Florissant.



### **Photos From the Backcountry**

Enjoy these snapshots taken from the Monument by our very own Gary Censoplano!









