

Florissant Fossil Beds Field Seminars 2019

It is the goal of the Friends of the Florissant Fossil Beds, Inc. and the staff at Florissant Fossil Beds National Monument to provide high quality, educational programs for the general public and educators. These programs endeavor to further the public's understanding of the geology, history, paleontology, and ecology of the Monument and the Pike's Peak Region.

Pre-registration is required for all seminars.

Contents:

Friends of the Florissant Fossil Beds, Inc.	1
Seminar Descriptions.....	2-3
Instructor biographies.....	4-5
Registration Information.....	6
Fees, refund, and cancellation information.....	7
Things you should know.....	8
Mail-in Friends Membership.....	9
Seminar Registration Form.....	10
Adams State University.....	11

Friends of the Florissant Fossil Beds, Inc.

The Friends of the Florissant Fossil Beds are dedicated to assisting the National Park System in preserving, protecting and advancing knowledge about the natural and cultural resources of the Florissant Fossil Beds National Monument. As a 501(3)(c) nonprofit organization, the Friends mission is to raise funds and promote programs and activities to advance the Monument's educational, interpretive and scientific objectives. A vital aspect of the partnership between the Monument and the Friends organization is that of promoting educational opportunities through field-based, experiential seminars. These seminars feature outstanding instructors who are recognized experts in their fields. We invite you to join us and take part in a lifelong process of learning and discovery.

The opinions and views represented in the seminar series are not necessarily that of the National Park Service or the Friends of the Florissant Fossil Beds, Inc.

Seminar Descriptions 2019

Project Learning Tree, Saturday, June 29, 2019, 9:00 AM - 5:00 PM, Rose Banzhaf.

Project Learning Tree (PLT) is an award-winning environmental education program designed for formal and non-formal educators, parents, and community leaders working with youth from preschool through grade 12. This workshop will introduce participants to the PLT materials, sample activities, and includes an opportunity for groups to present sample lessons. All participants will leave with a PLT guidebook (PreK-8 or a high school module) and activity supplies ready to be used with their students. The PLT guidebooks are designed to meet the common components of national education reform by using the constructivist approach to learning, whole language teaching, cooperative learning, problem solving, and authentic assessments.

“THE BIG FLAT”: Volcanic and Sedimentary Deposits on the Late Eocene Erosion Surface in the Florissant Area, Saturday, July 13, 2019, 9:00 AM - 5:00 PM, Dr. Reinhard “Bud” Wobus.

Volcanics (lava-, mud-, and pyroclastic flows) and sediments (lake beds, stream gravels, debris flows) mantle the high-level erosion surface of low relief that is arguably the most conspicuous landscape feature of the southern Front Range. These surface deposits provide the only widespread geologic datum that can be dated, thus documenting the age of post-volcanic vertical offsets along faults and the time of uplift of the Puma Hills. They also bracket the entire history of Lake Florissant before, during, and after its existence.

We will visit as many of these varied deposits as possible in a day, from the Monument west and southwest to Guffey, the source of the lava and mudflows that dammed Ancient Lake Florissant. En route we will stop at exposures of Wall Mountain Tuff, deposited by explosive volcanism that reached almost to Denver from a source near Mt Princeton about 37 million years ago. The tuff exposures and post-volcanic stream gravels mark the course of former drainages that flowed across the erosion surface. You will gain a new appreciation for “The Big Flat” and its importance in the geologic history of this area. **This seminar features advanced geology/science concepts. It is recommended for participants who have a solid science background.

Discovering, Observing and Telling Nature’s Stories for Children and Adults, Thursday, July 18, 9:00 AM - 5:00 PM, John Stansfield.

Colorado naturalist, writer, and national park pioneer Enos Mills once said, “Nature is an educational stimulus of great force.” For him, the “book” of the natural world was always open, its contents waiting to be closely examined, its stories retold. In this seminar, John Stansfield, storyteller and writer, will guide participants through outdoor and indoor learning experiences to inspire discovery, observation, and recollection in children and adults. The wisdom of Enos Mills and Dakota Indian author, outdoor leader, and doctor Ohiyesa (Charles Alexander Eastman) will influence two easy, but involving naturalist walks. We will share selections from their writings, as well. Using observations and memories from our walks and our lives, we will identify “tellable nature tales” and learn storytelling skills to present them and teach them to students. Stansfield will demonstrate a number of nature stories in a variety of storytelling styles. Participants will take away an increased understanding of the Florissant environment, several stories for retelling, and handouts to reinforce the learning objectives of the seminar.

From Our Origins to Today - A Geologist's Perspective On Our Changing Times, Saturday, July 20, 9:00 AM - 5:00 PM, Dr. Bob Raynolds.

Dr. Raynold will begin this course by discussing the 8 quantum leaps in history that humans have accomplished. We will explore how these helped us evolve from hunter gathers to the present day. Through discussion, power point and reviews of literature we will study these quantum leaps in light of what the future holds for us. While we may have been literally born in the African Rift Valley, our ancestor's bones are concentrated there because of the coincidence of favorable environments for living and fossil preservation. Over the last 4,000,000 years, we made 8 quantum leaps leading ultimately to the era of accelerated extinction and fossil fuels. In our lifetime, the latest quantum leap, the INTERNET has trumped all. The world is changing leading to the Great Acceleration. In the past 10 years, the population of the Earth has increased by a billion people. We are at an increased risk as more people live in harm's way at sea level and amidst volcanoes, earthquakes and tsunamis. Science has propelled our population to beyond 7 billion. Science has elevated hundreds of millions from poverty during our lifetime – yet science is poorly understood by many. Beguiled by progress, we have inadvertently, but knowingly triggered and accelerated the sixth extinction. We condone a planetary life style where over a billion people lack clean water and are malnourished. Our world receives more energy than it emits due to man made modifications of the atmosphere. This is changing the ocean temperature and chemistry together with global climate patterns. What does the future have in store for us.? Are we prepared to face the future?

Creating a Deep Map of Florissant Fossil Beds National Monument, Wednesday, July 24, 9:00 AM - 5:00 PM, Toni Ratzlaff.

Join Toni Ratzlaff for a day of bookmaking and exploring the history of the Florissant Fossil Beds National Monument. During the morning, we will explore the area's geologic history. We will learn how the Monument was established and what events have occurred here in the last 50 years. We will use this information to make several hand-made books. In the afternoon, we will create a "Florissant Fossil Beds Deep Map." The concept of "deep mapping" originated with the author William Least-Heat Moon in his book *Prairyerth*. Simply described, it is a map that has more than just roads, waterways and physical characteristics. It is a map that goes deeper into information than the usual. It includes historical information, such as information about the people who lived there, what the place is like or any other info that the "author" might wish to include. Many ideas will be presented for using the "deep map" process to create books in a classroom setting or even with your family.

Instructor Biographies 2019

Rose Banzhaf

Rose Banzhaf is a retired Environmental Educator who moved to Woodland Park, Colorado in 2010. She was introduced to Project Learning Tree as a scout leader in Texas in the early 1990's and became a trained facilitator in PLT very soon after. While in Texas, her training programs made use of an environmental study center and targeted pre-service education students at the University of Texas at Dallas (UTD). Since moving to Colorado and quickly making PLT connections, she has facilitated at least 4 workshops annually and attended two national PLT coordinator conferences. Among the volunteer hats she wears is one for the Colorado State Parks where she can be found most weeks helping with the naturalist program at Mueller State Park leading hikes all year round and bringing nature based programs to local students.

Dr. Reinhard "Bud" Wobus

Dr. Reinhard (Bud) Wobus is a professor at Williams College in the Geosciences Department. His expertise is in mineralogy and petrology. He considers himself primarily an igneous petrologist with a strong regional slant toward the southern Rockies of Colorado and New Mexico. He received his BA from Washington University, his MA from Harvard and his PhD from Stanford University in Geology. Dr. Reinhard is a long time proponent of the value of research as the signature element of undergraduate science education. He has spent 55 summers in field studies with his students leading to research topics. Most of his geology research has been in Colorado, Maine, and northern Iceland.

John Stansfield

John Stansfield has been a citizen of the world since 1947. Raised in Paxton, Massachusetts and Dallas, Texas, he graduated with a degree in English from Holy Cross College, Worcester, Massachusetts. He earned a Master of Arts in Teaching degree from Emory University, Atlanta, Georgia in 1970. A resident of Colorado and a storyteller since 1970, John has told stories professionally since 1979. During that time, he has performed for more than one million listeners in a great variety of settings. John's programs of stories and a cappella ballads feature: Western History and Environment; Literature Aloud!; and World Folklore, especially American lore. A classroom teacher for ten years, he is a specialist in storytelling in education, having taught storytelling and other courses at the University of Colorado at Colorado Springs. In 1989, he founded the Rocky Mountain Storytelling Festival, which continues to this day.

Dr. Bob Raynolds

Dr. Bob Raynolds is a Research Associate at the Denver Museum of Nature & Science. Bob earned his Master's in Applied Earth Sciences from Stanford University and his PhD from Dartmouth College. His dissertation focused on sediments that accumulated at the foot of the Himalayas. This experience led him to study comparable rocks in the Denver Basin that record the uplift of the Laramide Front Range and contain precious groundwater. Bob also works on the Rift Valley in East Africa as an adjunct faculty member in the Turkana Basin Institute based at Stony Brook. Bob has worked for the US Geological Survey in Reston and in Menlo Park, and for Exxon and Amoco in Sydney, Houston, and Denver. Bob has taught as a Fulbright professor at the Center for Excellence in Geology at Peshawar University in Pakistan, at Dartmouth College, and at the Colorado School of Mines where he is currently an adjunct faculty member in the geophysics department. Bob's recent lectures focus on the impact of climate change on Colorado's ecology and water resources of the Colorado River system.

Instructor Biographies 2019

Toni Ratzlaff

Toni Ratzlaff is an artist with a BA in Elementary Education/Art from Ottawa University, Ottawa Kansas. She has more than 20 years experience teaching elementary art, as well as more than 30 years experience teaching workshops for both children and adults and private art lessons. Toni is a docent at the Pikes Peak Historical Society and volunteers as the Chautauqua Program Chairperson. She has lived in the Pikes Peak region for over 30 years. In addition to art, her interests also include history and geology.

Registration Information

Pre-Registration is Required for All Seminars

The following list will guide you through the registration process:

1. The first step is to decide which course(s) you want to take, noting the fees for each seminar. See course descriptions for more information about each seminar.
2. You can receive discounts on seminars if you are a member of the Friends of the Florissant Fossil Beds, Inc. Are you a current member of the Friends group? Do you need to renew your membership? Would you like to join the Friends for the first time? If you are interested in getting immediate discounts, you can join the Friends with your registration.
3. Are you a teacher? Will you be taking this course for graduate and/or undergraduate credit through Adams State University and/or recertification credit through BOCES?
4. Once you have decided which course(s) you would like to take, what credits, if any, you would like to receive, and whether or not you want to join the Friends group, you are ready to register by one of the following methods:
 - a. (Mail In/ Call In) Fill out the registration form at the end of the brochure and mail it with your payment. You can pre-register by calling (719) 748-3253, ask for extension 109 and leave a message. Your phone reservation will be held for 10 days. Receipt of payment confirms your space in the seminar).
 - b. (On Line) Register on-line by going to www.fossilbeds.org and selecting 'Seminars' from the main menu, following the registration and payment instructions there (through PayPal).

Please remember that for each seminar you want to take for graduate credit from Adams State University, you must fill out a separate graduate credit registration form that is at the end of this brochure.

Also note that you may not repeat a seminar for credit if you have previously taken and received credit for that seminar. Check titles and content carefully since one or two repeated classes may have a new title or description. Call us if you're in doubt. Adams State University tuition or BOCES recertification fee must be included with seminar registration and fees.

Fees and Tuition

Friends' Seminar Fees

\$25.00 fee for each 1 day seminar

\$15.00 discounted fee for current member of Friends, 1 day

Adams State University Graduate Credit Tuition and Adams State University Undergraduate Credit Tuition

\$27.50 tuition for 1/2 credit per 1 day, 7.5 hour class

Please note that you must attend the entire 7.5 hour day to get credit.

BOCES Recertification Tuition

\$15.00 recertification credit through the Pike's Peak BOCES of Colorado Springs

Call For Details (719) 748-3253 ext. 109

Please note that you must attend the entire 7.5 hour day to get credit.

Refund and Cancellation

We reserve the right to cancel any seminar if minimum enrollment is not met. We will make every effort to place participants in another seminar of their choosing or will return the registration fee and ASU tuition/ BOCES fee. If you cancel your enrollment for any reason, the following policy will apply: refunds will be given for cancellations received up to one week prior to the seminar, minus a \$5.00 processing fee. No refund is given for cancellation less than a week prior to the seminar.

Disclaimer

•The seminars are educational in nature. In any educational environment, all sides of various issues need to be examined and some of these may prove to be controversial. Views expressed are not necessarily those of the National Park Service, the staff, or Friends of the Fossil Beds, Inc., nor are they responsible for their content.

•In most cases, books recommended will be available for purchase at the seminar, or the Rocky Mountain Nature Association bookstore at the Monument.

Things You Need to Know Once You are Registered

How to get here:

- The Monument is reached from I-25 in Colorado Springs by taking State Highway 24 west approximately 35 miles to the town of Florissant. Turn south (left) on Teller County Road #1, proceeding about 2 miles to the entrance of Florissant Fossil Beds. Proceed to the visitor center area. The seminars will be held in the Yurt (30 foot circular tent) at the south end of the picnic area unless otherwise stated.
- All seminars begin at the Yurt at 9 am and end at 5 pm UNLESS OTHERWISE NOTED. PLEASE READ ALL INFORMATION CAREFULLY in the seminar description. Several seminars may begin at a different time or will meet elsewhere. You are responsible for your transportation in reaching the starting point.
- Allow approximately 1-hour drive from the west side of Colorado Springs, at least 2.5 hours from Denver. Seminars will begin on time. We ask that you arrange to arrive about 15 minutes before the start time to allow for check-in. Allow yourself plenty of time for a stress-free arrival.

What to bring and how to prepare:

- Most seminars will be outdoors for a large portion of the class and may require hiking. Be prepared for changeable mountain weather with layered clothing, rain gear, comfortable hiking shoes, hat, sunglasses and sunscreen. Insect repellent is a good idea. Meals are not provided, so bring a sack lunch, snacks, ample drinking water, and a plastic sack to carry away any refuse from your day. Bring a notebook and pen. You may wish to bring binoculars, camera, field lens, or any other items that would enhance your experience.

You will be called before the seminar to insure you are prepared for the seminar with directions, proper clothing, lunch, and to address any concerns or physical limitations. You will also be notified if carpooling is a part of the seminar you will be attending.



Friends of the Florissant Fossil Beds, Inc.

Join the Friends of the Florissant Fossil Beds, Inc. and help support Florissant Fossil Beds National Monument. Receive an immediate discount on your seminar fees!

Friends Membership Form

Student \$10.00

Individual (1 year) \$20.00

Individual (2 year) \$36.00

Family (1 year) \$30.00

Family (2 year) \$50.00

Paleovespa \$500.00

Brontothere \$1,000.00

Sequoia affinis \$5,000.00

Name_____

Street_____

City_____

State_____

ZIP_____

Email_____

Phone_____

Contribution_____

Total _____

Seminar Registration Form

Teacher graduate credits are \$27.50 for 1/2 credit (7.5 hours)					
Course Number	Seminar Title	Seminar Fee	Adams State Tuition \$27.50	BOCES \$15.00	Total amount this seminar
ED 589					
ED 589					
ED 589					
ED 589					
ED 589					
ED 589					
			Membership Dues		
			Subtotal		
			Total		

Mail completed forms with payment to:
 Friends of the Florissant Fossil Beds
 PO Box 185
 Florissant, CO 80816



ADAMS STATE UNIVERSITY
 208 Edgemont Blvd., Suite 3000 Alamosa, CO 81101
EXTENDED STUDIES REGISTRATION FORM
 Toll Free: 1-800-548-6679 or (719) 587-7671 FAX: (719) 587-7974
 Website: <http://exstudies.adams.edu>

Date _____ Social Security Number _____ / _____ / _____ Birthdate _____ / _____ / _____ E-Mail Address _____

Full Name: _____ (Last) _____ (First) _____ (Middle) _____ Previous Name _____

Mailing Address: _____ (Street - P.O. Box) _____ (City) _____ (State) _____ (ZIP) + 4 _____ New Address?: Yes _____ No _____

Sex: ☐ M ☐ F Home Phone: _____ Work Phone: _____ School District: _____

Are you a Colorado Resident? ☐ Yes ☐ No (Non-Resident)
 I have lived in Colorado since: _____

The following Selective Service question must be answered to comply with Colorado State Law: If you are a male born after December 31, 1957, are you registered with the Selected Service? ☐ Yes ☐ No

Course Prefix & Number:

Course Title:

Date:

Credit Hours/CEUs:

Instructor of record:

****I understand that if an Incomplete grade is awarded, the incomplete grade will change to an "F" grade exactly one year from the registration date unless an earlier date is specified by my instructor.****

I understand that if I have registered for hours in excess of 20 within this term, I must acquire Extended Studies approval prior to registration for this course. I understand that I must fulfill the residence requirement in effect for any special degree or certificate. I understand that if this class is to be used in a degree program, approval must be secured from the student's assigned academic advisor. I hereby request admission to Adams State University as an Extended Studies (non-certificate or non-degree bound) student. I understand that if I wish official admission to a degree program, I must submit a regular application. I certify that all information (including Selective Service) I have provided is true.

Signature: _____ Date: _____

- Ethnicity: (Mark any that apply. Not required.)
- ☐ American Indian or Alaskan Native
 - ☐ Black, not of Hispanic origin
 - ☐ Hispanic
 - ☐ Asian or Pacific Islander
 - ☐ Caucasian/White, not of Hispanic Origin
 - ☐ I do not wish to provide this information

An Official Transcript will be sent to your mailing address at no additional cost when a final grade for this course(s) has been posted. To request additional transcripts, please visit <http://www.getmytranscript.com>.