



Friends of the Florissant Fossil Beds Newsletter

Volume 2009 Issue 1

April, 2009

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A Celebration of Charlotte Hill's 160th Birthday

A Brief Biography of Charlotte Hill

by *Herb Meyer & Christina Whitmore, Florissant Fossil Beds National Monument*

Charlotte Hill was important in bringing the fossils of Florissant to the attention of the world. Much of this issue is dedicated to recognizing her on the event of her 160th birthday.

Charlotte Hill was an important early settler to the Florissant valley in what is now Teller County. She was born in Indiana in 1849 and died in California in 1930. She married her husband Adam in 1863 at the age of 13, and they had seven children. In December 1874 she and her husband moved to Florissant and homesteaded on land that is now part of Florissant Fossil Beds

National Monument. In 1880, Adam filed a homestead claim and the Hill family continued to raise cattle, grow potatoes, and build their ranch.

Life was not easy for Charlotte as she saw two of her children die before the age of two. During her time in Florissant she occupied herself not only with raising a family but also with collecting fossils. When scientists visited the area in the 1870s and 1880s, Charlotte provided them with an array of fossil insects and plants that she had collected. One scientist found Charlotte to have "boxes upon boxes full of fine paper like shales covered with the impressions of most perfect insects."

One of the most famous fossils she collected was *Prodryas persephone*, a perfectly preserved

butterfly that is now housed in the museum at Harvard University. Numerous fossils collected by Charlotte are preserved in the Smithsonian's Museum of Natural History and at Harvard and Yale Universities. Some of these fossils were of species that had never been described, and they provided scientists with new and important information. A fossil rose, *Rosa hilliae*, was named in recognition of Mrs. Hill in 1883.

The Fairplay Flume published an article on Charlotte in 1880, recognizing her as a naturalist. Without her contributions, many of these excellent fossils may never have been uncovered. She played an important role in revealing Florissant as one of the world's most significant fossil sites.

Superintendent's Report

by *Keith Payne, Superintendent, Florissant Fossil Beds National Monument*

This year has already been a busy one at the Monument. First we struggled with FY 2008 budget close-out. Then we operated under a continuing resolution for FY 2009 until last week when the budget was passed. In short, the first four months of

this fiscal year have been a time of tedious reporting for us. But we now have a budget and can return to a more normal operating state again.

The big news for us is that all the hard work we have all done for the last two years has paid dividends. With the support of the Friends, we have been offering our Junior Ranger program for

free – and it is a hit! In 2008 we had 2,500 children (and Dr. Herb Meyer) complete the program; in 2009, we had 3,300 complete it. This success is due to offering the program free to every child and school group that visits the Monument, and to having three Junior Ranger Days at the Monument each year. We are becoming well known in the National

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Happy Birthday Charlotte!

By **Keith Payne**, Superintendent, Florissant Fossil Beds National Monument

On February 15, 2009, Florissant Fossil Beds National Monument, the Friends of Florissant Fossil Beds, the Pikes Peak Historical Society, and the Florissant Scientific Society co-hosted a Chautauqua and birthday celebration for Charlotte Hill. For several months prior to the event, Dr. Herb Meyer was researching for a book about the establishment of the Fossil Beds as a unit of the National Park System. As he became reacquainted with Charlotte Hill, he realized, as had David Atkins and Beth Simmons, that the Monument had really never extended the recognition to Mrs. Hill that she so richly deserved. It was at this time Dr. Meyer conceived the idea of celebrating Charlotte Hill and recognizing her contributions to the fossil record and to Florissant Fossil

Beds National Monument. The birthday celebration plans were begun, and an interpretive wayside was developed to tell Monument visitors about Mrs. Hill. On the day of the celebration, 70 persons were at the Florissant Library to learn about Charlotte Hill. Four speakers – Herb Meyer, Steve Veatch, David Atkins, and Beth Simmons – presented talks about the life and contributions of Mrs. Hill. Through the tireless efforts of Christina Whitmore, the Monument's Museum Aide, we were extremely fortunate to be able to contact Mrs. Hill's family and to share that event with four generations of her descendants, who came from places as geographically diverse as Minnesota, California, and southern Mexico to be with us for the celebration.

Excerpts of Dr. Meyer's presentation that day are presented below.

The Homesteader Who Made The Difference: Charlotte Hill's Role in Unveiling Florissant's Place in World Fame

By **Herb Meyer**, Paleontologist, Florissant Fossil Beds National Monument

My interest in the story of Charlotte Hill began while writing one of the chapters for a new book that I am co-authoring with Estella Leopold, John Stansfield. I knew her name from the years when I was creating the database of published Florissant collections from museums around the country, and many times I had held fossil leaf specimens in places like the Smithsonian where the record of the collector was listed as "Mrs. Hill." It eventually became evident that she had made a major contribution to science by having collected so many of the fossils that became the name-bearing types for new fossil species.

The purpose of my talk during the tribute to Charlotte Hill, as illustrated in the slides below, was to begin to document the scope of these contributions. Evidence from the homestead filing of Adam and Charlotte Hill, from the scientific volumes of the Hayden Survey of the 1870s and 1880s, from old newspapers, and from the col-

lections database created at FLFO demonstrate the magnitude of Charlotte's contribution as a young homesteader who loved to collect fossils. A self-made naturalist, Charlotte Hill is the homesteader who links us to the monument's primary purpose. It was she who helped to unveil Florissant's place in world fame.

As is often the case, Charlotte Hill's story had gone unrecognized by the Monument for many years. Unmindful of her important contributions, the Monument has focused its attention instead on telling another homesteader's story, perhaps prompted by little more than the simple survival of a house on that particular piece of land. The event on February 15, 2009 – Charlotte Hill's 160th birthday – began the correction of that oversight. A new wayside exhibit was presented to the public for the first time, recognizing Mrs. Hill's role as a woman who met the first paleontologists to study Florissant and provided them with many of the important fossils that they later described. Her time of recognition has finally come.



*Homesteaders, Fossils, and Scientists:
A Tribute to Charlotte Hill on Her 160th Birthday*



Photo provided courtesy of the Hill family

***The Homesteader Who Made
The Difference: Charlotte Hill's
Role in Unveiling Florissant's
Place in World Fame***

Dr. Herb Meyer
Paleontologist
National Park Service

Presented February 15th, 2009

Adam and Charlotte Hill and family

- Built their house at Florissant in 1874
- Filed homestead claim in 1880
- 1880 U.S. Census
 - Adam, 45, Occupation: “collects specimens”
 - Charlotte, 31, wife, Occupation: “Keeps House”
 - Hiram, 12, son, Occupation: “At home”
 - Walter, 10, son, Occupation: “At home”
 - Margaret, 5, daughter
 - Mable, 1, daughter

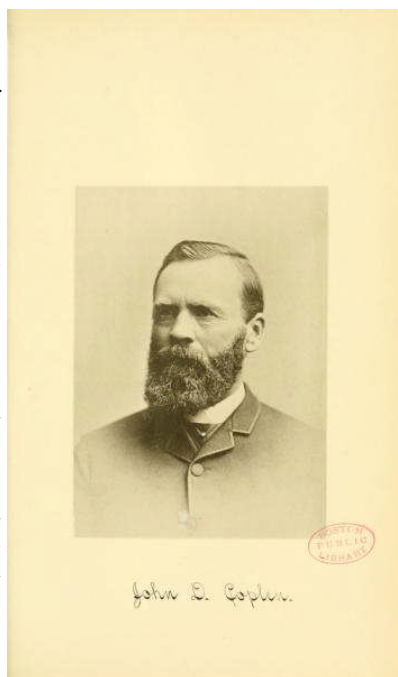
Presented by Herb Meyer,
February 15, 2009

John D. Coplen (Charlotte Hill's brother) - Petrified Forest Preservationist

by *Beth Simmons, Ph.D.*

John Davis Coplen, Charlotte Coplen Hill's oldest brother, recognized the importance of the petrified forest site when Adam and Charlotte Hill homesteaded the site in the 1870s. In 1883, he with a number of other investors, formed the Colorado Museum Association, chartered for twenty years, with the intent to "transport" the stumps to some private "city museum" for display and to sell fossils. The Association, with capital of \$30,000 in shares of \$100 each, paid Adam Hill \$8,000 for the 160 acres of the "petrified forest" property, which was a goodly sum for Colorado land with no gold or silver!

The organization planned and tried to move the big stump. They erected a scaffold around it and using steam saws with sand grit, attempted to cut the immense monolith into blocks. The stump resisted; it trapped the saw blades. So, defeated in their attempt to move the stump, the Association leased the



property to local ranchers over the next thirty years. Some allowed tour groups to come into the property and collect fossils or sit on the stump for photographic moments. For some years, Charlotte collected and sold specimens at her "museum" in Colorado City.

In the meantime John D. Coplen, his brothers, and brothers-in-law, were making money in real estate and in mining ventures. During the 1880s, the men in the family had developed "Coplen's Concentrating System," a method for treating low grade ores. They eventually used the system in their copper mining operation, the famed Inspiration Mine, in Globe, Arizona, where Coplen served as mayor for two years.

In 1914, long after the Association's charter had expired, Coplen purchased the outstanding shares from the surviving members, and thus owned the entire petrified forest property. In semi-retirement, he moved

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Princeton Scientific Expedition of 1877: The Florissant, CO Segment

by *Steve W. Veatch*

Early scientific information and fossil specimens from what is now the Florissant Fossil Beds National Monument came from a group of college students who, in 1877, traveled to the Florissant area from Princeton (then the College of New Jersey). Original expedition documents and photographs from Princeton's Mudd Manuscript Library and other sources provide a clear and complete chronology of the Princeton Scientific Expedition and reveal new details of this early phase in the history of paleontology at Florissant.

While in their junior year (1876), three of Arnold Guyot's students, Henry F. Osborn, William B. Scott, and Francis Speir Jr., envisioned a scientific expedition to the West. They sought advice from the paleontological profession, but because of the feud between E.D. Cope and O.C. Marsh, such information was classified. Undaunted, they organized the expedition throughout their senior year. On June 21, 1877, the Princeton Scientific Expedition left New Jersey for the West. After arriving in Denver four days later, the students spent time buying equipment, wagons, mule teams, and recently captured Indian ponies. The students first explored the Garden of the Gods in Colorado Springs. Upon arriving in Florissant in mid-July, they camped near what is now the park's visitor center and began their search for fossils.

Here is an interesting entry in the student's journal about Floris-

sant and Charlotte Hill:

Wednesday, 11 July

"About 1.30 p.m. the usual mountain shower passed over us, but we were well protected by our ponchos and enjoyed the gentle and cooling rain as we always did thereafter. While galloping four abreast over a narrow road that wound through a pine wood dear Hux collided with a tree and was nearly unseated. His poncho was rent after the manner of the ancient Hebraic sackcloth, and a roar of uncontrollable laughter burst from the others. This wanton merriment enraged dear Hux for the moment and he galloped ahead (at his horse's) best pace, but soon reigned into a clump of cottonwood bushes by the roadside for the laudable purpose of regaining his self-control. For Hux is a scripture-loving biologist and often ponders in the quiet way upon the pregnant maxim that "he that ruleth his spirit is better than he that taketh a city." By the time that the others had come up Hux emerged from his hiding place, his countenance filled with smiles and his benevolent glasses beaming peace, forgiveness and goodwill toward all men.

When we approached petrified stumps we inquired the way to Mrs. Hill's, who we had been informed, was the owner of some valuable beds containing fossil leaves and insects. On reaching the house we examined the specimens and were satisfied that we had "struck a find." While Hux united in this opinion as he found

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PBS—The National Parks: America's Best Idea

Acclaimed filmmaker Ken Burns, 2 time Academy Award nominee, winner of seven Emmy Awards, recipient of 20 honorary degrees, and producer of epic PBS film documentaries including *The Civil War*, *Baseball*, and *Jazz*, has collaborated with writer Dayton Duncan to produce another stunning documentary film that will air on PBS this coming September.

"Ken and Dayton have created a documentary film on the national parks and the origin of the National Park Service that provides Americans an opportunity to reflect on the significance and value of our national parks," said Acting NPS Director Wenk. "Their film will assist the National Park Service in communicating important messages and themes, such as the wonder of our natural and cultural heritage preserved in the National Park System; the unique American ideas and ideals that the System represents; and the inclusion of America's diversity in its past, present, and future."

Duncan, the series' writer and co-producer, first thought of making a film about national parks during a cross country vacation in 1998. The project, eight years in the making, traces the birth of the national park idea in the mid-1800s and follows its evolution for nearly 150 years. Creating the series was a labor of love for Burns and Duncan who both said that many of their fondest

memories include experiences shared with family members in national parks.

Burns, the director and co-producer, said the cinematography in the series is the most stunning of his nearly 30-year career. He mixed scenic shots with archival footage and photographs and supplemented them with first-person accounts from historical characters as well as personal memories and analysis collected from more than 40 interviews.

"National parks embody an idea as uniquely American as the Declaration of Independence and just as radical: that the most magnificent and sacred places in our land belong not to royalty or the rich but to *everyone*- and for all time," said Burns. "While making this series, we discovered more than stories of the most dramatic landscapes on earth. We discovered stories of remarkable people from every conceivable background. What they had in common was a passion to save some precious portion of the land they loved so that those of us who followed might have the same chance to fall in love with that place. Without them, parks would not exist."

Summer Seminars 2009

In the summer of 1994, in celebration of the 25th Anniversary of the establishment of the Florissant Fossil Beds NM, the Friends of the Florissant Fossil Beds offered several seminars for the public. Thus began a yearly tradition which has grown over the years. The seminars now offer credit for teachers, both graduate and CE.

The summer of 2009 will be the 15th year that the Friends have sponsored these seminars. This summer's seminars will be held in honor of the 40th Anniversary of the establishment of the Florissant Fossil Beds NM. The actual celebration of the 40th Anniversary will be held August 22-23, 2009.

The seminars will begin on May 30th and will run through the summer ending on August 23rd. Topics for this summer's seminars will include, paleontology, geology and history of Red Rocks Park, the Gold Belt (2 days), natural history topics, Sustainability and writing/storytelling. The last two seminars will be held on the Anniversary weekend. Saturday's seminar will focus on the history and establishment of the Monument with guest Estella Leopold. Sunday's seminar will focus on the history of paleontology of the Monument.

All information with dates and registration requirements will be available by May 1, 2009. Go to the website at www.nps.gov/flfo or stop by the Monument to pick up a seminar booklet. We look forward to seeing many of our neighbors with us this summer.

Saturday, May 30, 2009 - Geology and Paleontology of the Florissant Valley - Dr. Herb Meyer

Thursday June 18, 2009 - It's Alive! Bringing Historical Characters Back to Life with First-person Storytelling
John Stansfield

Saturday, June 20, 2009 - Insects in the Colorado Landscape
Kevin Cook

Saturday, June 27, Red Rock Country
Steven Veatch

Thursday, July 9, 2009 - Sustainability
Larry Stebbins

Friday, July 10 - Natural History and Ecology of the Flammulated Owl
Dr. Brian Linkhart

Tuesday, July 14, 2009 - Flora of Florissant
Doug Coleman

Sat./Sunday, July 18-19, 2009 - Gold Belt Byway
Dr. Herb Meyer

Sat./Sunday, August 22-23, 2009 - 40th Anniversary Seminars
Dr. Meyer and guests

History of the Establishment of the Monument

History of the Paleontology of the Monument

A Celebration of Preservation

Forty years ago, in August of 1969, three valiant women, members of a group called the Defenders of Florissant, led a fight to preserve one of the richest fossil deposits in the world – the fossil beds of the Florissant valley. At that time, the fossil beds were in danger of being damaged and lost due to development. Estella Leopold, Betty Willard and Vim Wright along with other citizens, scientists, and talented lawyers proved that a group of dedicated people can truly make a difference in the world. Because of the legal, political, and educational efforts that took place millions of people have been able to learn about and enjoy the fossils which are now a part of the National Park System. It is time to honor the achievements of those who had the forethought to fight for the preservation of a national treasure.

This summer on August 22-23, we will celebrate the establishment of the Monument with a weekend of wonderful activities. The events start with a full day seminar on

Saturday that highlights the history of the establishment of the Monument.

At noon, there will be ceremonies to start the official celebration. There will be refreshments and words of welcome from Superintendent Payne. It is hoped that there will be other speakers at that time including Estella Leopold.

On Saturday evening, there will be a banquet that will be held at The Nature Place starting at 6 PM. The motto for the evening will be \$40.00 for the 40th. For those wishing to stay overnight, The

Nature Place will provide rooms for \$58.00 a night and a continental breakfast.

Music will be provided by Ceol Ceili. There will be a silent auction and a surprise speaker.

On Sunday, there will be another full day seminar that will focus on the history of paleontology at the Monument.

This seminar will be presented by Dr. Herb Meyer and Mr.

Steven Veatch. Other special activities will be offered throughout the weekend including special hikes that will highlight paleontological sites in the Monument.

Seating is limited for the banquet. We suggest that you make your reservation as soon as possible. Please cut out or copy the coupon below and mail back to the Friends, Box 851, Florissant, CO 80816.

I/We _____

will be attending the 40th Anniversary banquet to be held on Saturday, August 22, 2009 to be held at the Nature Place in Florissant. Enclosed please find \$40.00 per each reservation.

SPRING HAPPENINGS AT THE FLORISSANT FOSSIL BEDS NM

There are many interesting and exciting activities being planned for Spring 2009.

Every Saturday during the month of April, from 1 to 3 PM, Professor Bob Carnein presents a fossil finding demonstration called "Saturdays with a Scientist."

On Saturday, April 25, 2009, we will be holding our first Junior Ranger Day for 2009.

Steve Veatch will be teaching a Discovery Program on the Princeton Expedition on **April 19**, 2009

The staff at the Monument is in full swing preparing for the summer. We expect to keep the **Visitor Center open 8 – 6 pm** like last summer.

The Annual Volunteer Appreciation Bar B Q will be on Friday, **May 1st** at 5:30 PM at the Administration Building. More information coming soon.

To find out more information about the programs available, please call the Monument at 719-748-3253 come visit us and ask what's happening!

Thanks to the Friends of the Florissant Fossil Beds

by **Herb Meyer**, *Paleontologist, Florissant Fossil Beds National Monument*

I am especially thankful to the Friends for their support of my participation at the 8th International Organization of Palaeobotany Conference in Bonn, Germany from August 30 to September 5. This is an important conference because it brings together paleobotanists from around the world to discuss the latest findings in the field, and the conference is only held every four years.



Opencast mine containing fossil plant localities in east Germany

The Friends also helped support my attendance at this conference when it was held in China in 2000. The conference in Bonn offered a great diversity of topics in paleobotany and palynology, with more than 50 symposia and poster sessions. More than 900 participants from 54 countries were in attendance.

I presented a talk on “*Middle Eocene woods and leaves from El Bosque Petrificado Piedra Chamana, Peru: Applications to conversation, educational interpretation, and geotourism.*” Some of the topics in this talk related directly to the efforts that we have been making to research, conserve, and interpret this important petrified forest site at Sexi, Peru. The Friends of Florissant Fossil Beds have entered into a partnership with the non-profit group in Peru that is helping to conserve the site, and this partnership was one of the things that I mentioned during the talk. We are planning a trip to the site in Peru in June 2010, and members of the Friends will be welcome to participate.

During the conference, I went on one of the field trips to visit the famous Eocene site at Messel, which is a World Heritage Site. Messel has a lot in common with Florissant. It contains diverse fossils of plants and insects that were preserved in a lake within a volcanic depression. Like Florissant, the fossil beds at Messel were saved from destruction – in this case from becoming an enormous open-pit landfill!

Following the conference, I attended another of the field trips to visit Eocene, Oligocene, and Miocene sites near



Location of the conference—University of Bonn

Dresden in east Germany for a week. Many of these were in huge opencast mines that produce lignites for energy production, and these lignites also contain fossil plants. Some of the sites were close in age to Florissant and provide evidence in Europe for the same climate change events that we see in North America just after the Florissant fossils were deposited.

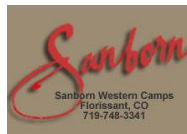
Participation in conferences and field trips such as this provides the benefit of understanding Florissant in a global context. It helps to stimulate interest and research at Florissant and in Peru by paleobotanists internationally. Because of travel restrictions for National Park Service employees, the support of the Friends made all the difference in making this trip possible. Thank you!



Excavations at the Messel Pit Fossil Site—World Heritage Site

Laura Sanborn 1922-2009

by Jerry McLain



Laura Sanborn, long-time Florissant area resident, died February 11, 2009. Laura and her husband and partner, Roger "Sandy" founded Sanborn Western Camps, Colorado Outdoor Education Center and The Nature Place south of Florissant.

Laura grew up in Sterling, Colorado, the daughter of Dr J. E. and Meta Naugle and graduated from the University of Colorado at Boulder. While at CU Laura and Sandy met on a blind date and were married in 1944 after only six dates. Sandy was in the Tenth Mountain Division, training at Camp Hale, and served in Italy near the end of World War II.

After the war, Laura taught school in Fort Collins while Sandy finished his college education at Colorado A & M (now Colorado State University). She and Sandy taught in the old Florissant school house during the late forties and early fifties. Melvina Harper taught the lower grades, Laura taught the middle grades and Sandy taught all the subjects in the high school.

In 1948 Sandy and Laura acquired land south of Florissant and began developing Sanborn Western Camps, summer camps for children. Over the past 60 years, over 30,000 campers from all 50 states and several foreign countries have attended Big Spring and High Trails Ranches.

In 1967 High Trails Outdoor Education Center began providing resident programs for public and private schools. Over 100,000 students have attended sessions in outdoor education. Organized under Colorado Outdoor Education Center facilities and programs eventually grew to include The Nature Place conference center, the Pikes Peak Research Station, and Stalking Education in the Wild. The Center employees 35-40 year-round local residents and the staff numbers 110-120 during the summer.

In the late 60's, as the Florissant Fossil Beds National Monument was taking shape, 120 acres of Sanborn land was incorporated into the boundaries of the National Monument. Laura and Sandy always valued the good neighbor relationship they had with the National Monument. Over the years a wonderful partnership has developed from cooperating on wildfire issues and land stewardship to collaboration with education programs. In the 70's, the Park Service designated Colorado Outdoor Education Center as a National Environmental Study Area – one of 13 in the nation. "This site possesses distinctive values in revealing natural, historical, and cultural processes through effective environmental education programs."

In "downtown" Florissant during the early 70's, Sandy and Laura renovated the old "Fishing Shack" into a destination restaurant and gift shop known as "The Shack" (which later became the Fossil Inn).

Laura and Sandy established SEARCH Publications, the publishing arm of the educational complex. She authored *Swim Free, A Bright Star Guide*, and *The Mystery of Horseshoe Mountain*. Laura was a Certified Camp Director (CCD) and was honored as a Pioneer in Camping by the American Camp Association.

Laura founded the Colorado Springs Girls Club in 1965 and served as President of the Board until 1970. She served as a member of the Governor's Committee on Child Care Licensing and helped to write child care standards for the State of Colorado. In 1992 the Colorado Association of School Executives honored Sandy and Laura with the CASEY Award for contributions to the profession from outside "traditional" education. In 1996 the Colorado Ethics in Business Awards presented Sandy and Laura with the Daniel L. Ritchie Award. They were honored with the Muse Award by the Colorado Alliance for Environmental Education in 2000.

She is survived by their son Rick Sanborn of Holualoa, Hawaii, their daughter Jan (Rein) Van West, of Ridgway, Colorado, four grandchildren: Kacie (Rajendra) Awasthi, Florissant; Caroline (Chrigl) Brüesch, Malix, Switzerland; Phil (Katy) Perry, Denver; and Patrick, Colorado Springs, two great-grandchildren: Jamie and Raina Brüesch, and several nieces and nephews. Sandy died in 1999.

Sanborn Western Camps, Colorado Outdoor Education Center and The Nature Place continue under the direction of Jane Sanborn, Executive Director; Mike MacDonald, Director of Big Spring Ranch; Julie Richardson, Director of High Trails Ranch; Rob Jolly, Director of The Nature Place; Chris Tholl and Carlotta Avery, Directors of the High Trails Outdoor Education Program and Jerry McLain, Director of Development.



Friends of the Friends

Pikes Peak Historical Society

Schedule of 2009 Chautauquas (at Florissant Public Library unless otherwise noted)

Florissant Library 5th Anniversary	Sat, Apr 18	
Florissant Ice Age Discovery -- Mammoth! <i>with Steven Veatch</i>	Sun, Apr 19	2:00 pm
Cheyenne Revenge: Custer's Last Stand <i>with Leon Kott</i>	Sun, May 17	2:00 pm
Florissant Pioneer Cemetery Gate Dedication At the Pioneer Cemetery	Mon, May 25	2:00 pm
Pioneers & Homesteaders of the Pikes Peak Region <i>with Duane Russell</i>	Sun, June 28	2:00 pm
Tabeguache Utes Dance at FFBNM	Aug 1	7:00 pm
Florissant Fossil Beds National Monu- ment 40th Anniversary	Sat. Aug 22 & Sun Aug 23	All Day
PPHS Annual Volunteer Brunch	Sat, Sept 5	12:00 pm
PPHS Annual Auction	Sat, Oct 24	2:00 pm
Genealogy of Florissant Pioneer Cemetery <i>with Laura Moncrief</i>	Sun, Nov 15	2:00 pm
PPHS Christmas Party at Twin Creek Ranch, Florissant	Sat, Dec 5	12:00 pm

Heritage Day

FVFD Pancake Breakfast Florissant Fire House	Sat, July 25	7:00 am
Hornbek Homestead Days Florissant Fossil Beds National Monument	Sat, July 25	10:00—3:00 pm
Pikes Peak Historical Society Museum Florissant Schoolhouse Museum	Sat, July 25	10:00—4:00 pm

Friends of the Friends

Curtis Homestead 100th Anniversary

Memorial Day Weekend

4921 Park County Road 100

Florissant, CO

Saturday May 23rd, 2009

- ◆ Wagon Rides in Pike National Forest
- ◆ Tours of Historic Homestead
- ◆ Food Vendor
- ◆ Live Music
- ◆ Ice Cream Social

Sunday May 24th, 2009

Cowboy Church

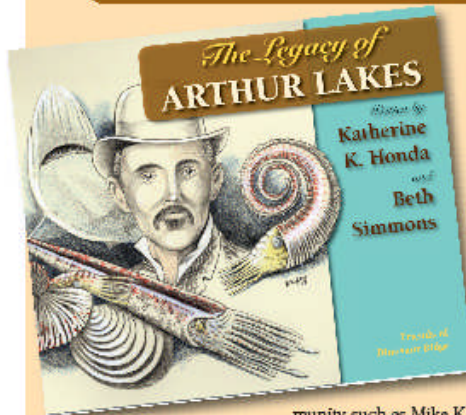
Arthur Lakes Book

The first 100 copies will be signed by all of the contributing authors and will sell for \$30. After that, no signatures, and the price goes up to \$39.95. Call Dinosaur Ridge gift shop to place your order - 303-697-3466.

The books will be available probably sometime after April 15th... \$7.50 shipping.

Coming soon to the book rack at Dinosaur Ridge!

The Legacy of ARTHUR LAKES



By
Katherine K. Honda
and
Beth Simmons

- **19th century pioneer scientist/artist**

"The Year of Arthur Lakes 2007" precipitated a comprehensive biography of dinosaur bone collector Arthur Lakes by Kathy Honda and Beth Simmons. Writings from Friends of Dinosaur Ridge authors — Vince Matthews, Martin Lockley, Chris Carroll, Judy Peterson, Sally White, Kermit Shields, Pete Modreski, Bob Weimer, and Bob Reynolds — and others from the geological community such as Mike Kohl, Herb Meyer, Ed Raines, and Jack Murphy, bring Lakes'

timeless work into the 21st century. Descendants of Arthur Lakes — John Rutherford Lakes and Rev. Michael Lakes — also contributed along with Larry Jacobsen, mining historian and author from British Columbia, who discusses Lakes' life in Nelson, BC, where he died in 1917. So, the book is an international effort to tell the story of a great geologist's life.

- **Heavily illustrated, richly designed**

Drawing on Lakes' work of over 800 articles and many editions of five books complete with thousands of Lakes' sketches and paintings, graphic designer/author Gary Raham has worked magic to transform *The Legacy of Arthur Lakes* into a richly illustrated tome worthy of anyone's coffee table. Raham's own sketch of Lakes graces the cover of the book.

- **Comprehensive CD-ROM for historical & scientific reference**

Included with the book will be a CD-ROM with most of Lakes' work in pdf files (technologically created by FODR webmaster John Ghist), so any mining historian, paleontologist, or geologist of the American West will have at their finger tips the collection of the great writings of the West's most prolific geologist. The CD-ROM will also include the family genealogy and the works of Arthur, Jr., and Harold, Lakes' two sons.

- **A standard reference ready to complement your collection!**

Over two years in preparation, this book will stand as one of Dinosaur Ridge's greatest productions. It will become a standard reference book for all western geologists, paleontologists, and mining historians. Slated to sell for \$39.95, the first printing will be a limited run of 100 signed copies and will be available for a pre-publication order price of \$30. *Call the Ridge Gift Shop today to place your order!*

303-697-3466

Also visit Dinosaur Ridge online at www.dinoridge.org

Earth Science Courses that Rock!

Colorado Mineral Exploration Seminar
May 16 and 17, 2009
Western Museum of Mining and Industry
Cost: \$15.00
Call 719 488-0880 to register



Mineral deposits supply many of the raw materials that sustain developed societies. The minerals industry is currently in a “boom” period, in fact, the need for natural resources has never been greater. This increased demand for metals is from rapidly developing Asian countries (mainly China and India). The study of mineral deposits is one of the most fascinating fields in geology. The geological and economic nature of mineral deposits will be the focus of the seminar and will enable educators to better understand the geologic nature of mineral deposits, methods of mineral exploration and exploitation, and the environmental consequences of utilizing mineral resources.

This course has 1.0 semester of graduate credit from the Colorado School of Mines ([tuition is a separate cost](#)).

The Fossil Record: An Introduction to Paleontology
June 20, 2009
Cripple Creek Park and Recreation
Cost: \$69.00
Call 719-689-3514 to register

This class provides a basic introduction to paleontology, the study of the ancient life on earth and the fossils that remain behind. Paleontology is a field of continuous discovery where advances in technology and procedures of inquiry allow scientists to reconstruct earlier and very different worlds. Two field trips included. This course has 0.5 semester of graduate credit from the Colorado School of Mines. (tuition is a separate cost)

Dinosaur Ridge Class
July 11, 2009
Cripple Creek Park and Recreation
Cost: \$33.00
Call 719-689-3514 to register



Join geoscientists for a day of investigating the world of dinosaurs, paleontology, and earth science. A Cripple Creek Park and Recreation bus will pick up Teller County participants in Cripple Creek, and then stop at the 8th Street Wal-Mart in Colorado Springs to pick up the rest of our group. Our first stop will be **Dinosaur Ridge**, a hogback west of Denver, between the towns of Morrison and Golden that exposes dinosaur-bearing rocks of Jurassic and Cretaceous age. The Dinosaur Ridge area is one of the world's most famous dinosaur fossil localities. After a special program and orientation at the visitor center, Steven Veatch and professor Beth Simmons will provide a guided tour of the outdoor exhibits on the ridge where both bones and tracks of dinosaurs, crocodylians and other animals are visible. Starting in 1877, many of the first and best skeletons of *Stegosaurus*, *Apatosaurus*, *Diplodocus*, *Allosaurus* and other dinosaurs were excavated on the west side of the ridge.

In the 1930s, during the construction of West Alameda Parkway, dinosaur tracks were discovered on the east side of Dinosaur Ridge in rocks representing the Cretaceous Period. Following a catered lunch at Dinosaur Ridge our group will tour the **Triceratops Trail** at the Parfet Prehistoric Preserve. This half-mile hiking trail winds through old clay quarries, where our professional guides will assist us in interpreting the evidence (footprints, traces, and impressions) left by the dinosaurs, birds, mammals, insects, and plants from this very different, very swampy, habitat that is 68 million years old. Raindrop impressions are among the rarities on the Triceratops Trail. Be sure to bring your camera to take photos while you are on this unique opportunity to explore a lost world. Throughout the tour, expert scientists give their insights into the world of paleontology.



Field Studies in Paleontology: Exploring the Shelf Road From Cripple Creek to Garden Park, Colorado
October 3, 2009
Cripple Creek Park and Recreation
Cost: \$69.00
Call 719-689-3514 to register

Starting from Cripple Creek, this field class offers an unsurpassed opportunity to explore the geological and paleontological wonders along the Shelf Road. Participants will explore the old wagon roads used to haul dinosaur bones from Garden Park to Cañon City, visit a dinosaur quarry, and explore nearby dinosaur tracks. All transportation is included.

This course has 0.5 semester of graduate credit from the Colorado School of Mines. (tuition is a separate cost).

Continued from page 3

Who was Charlotte Hill in 1877, when the scientific parties came to visit?

- She was 28 years old. (This photo was apparently taken later in her life.)
- She and Adam had been living on the homestead for 3 years
- She had 4 living children, ages 2, 7, ~9 (Hiram), and 11.
- In December of that year, one of those children, Minnie Bell, died at age 11. Two of her children had already died in earlier years, one on the homestead.
- Did the children help collect some of the fossils?



Presented by Herb Meyer,
February 15, 2009

How much did Charlotte Hill really collect?

- 169 specimens in the database (out of 5,000) are clearly attributed to "Mrs. Hill" as the collector.
- Most of those are fossil plants examined by Lesquereux, and he often credited Mrs. Hill.
- But in addition to that
 - How many of the 228 published specimens recorded as "Princeton Scientific Expedition" were actually collected by Charlotte Hill?
 - How many of Scudder's specimens were actually collected by Charlotte Hill?



Presented by Herb Meyer,
February 15, 2009

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Princeton Scientific Expedition visited Florissant in July of 1877

- Fossil collecting expedition to the American West, organized by students Osborn, Scott, and Speir
- 18 students and 2 professors
- Many of the fossils that they gathered were included as new species described by Scudder and Lesquereux in the volumes of the Hayden survey
- Journal entry of July 11, 1877



Henry Fairbridge Osborn Wallace Remondino Scott
Francis Smith, Jr.

***“We camped at Florissant
...[and] paid Mrs. Hill a visit
and gained quite a lot of
fossils, bugs, leaves, etc.”***



Presented by Herb Meyer,
February 15, 2009

Samuel H. Scudder and Arthur Lakes' visit to Florissant in August of 1877



Scudder



Lakes

- Traveled by horseback from Golden to Florissant by way of Fairplay
- Lakes' journal entry August 18, 1877
 - ***“Prof. Scudder went over to Hill's Ranch to see about some fossil insects Mrs. Hill had been collecting for him... [He] came back at dinner ... reporting that Mr. Hill had boxes upon boxes full of fine paper like shales covered with the impressions of most perfect insects”***

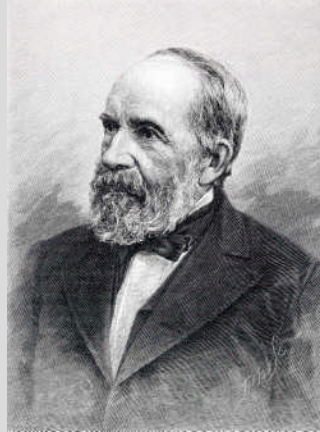
Presented by Herb Meyer,
February 15, 2009

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Leo Lesquereux

- First scientific publication on Florissant in 1873, and through 1883
- Studied the fossil plants
- No evidence that he ever actually visited Florissant
- Obtained his collections through Scudder and the Princeton party
- His publications and collections at the Smithsonian best document the contributions made by Charlotte Hill



Presented by Herb Meyer,
February 15, 2009

Type specimens of *Rosa hilliae* Lesquereux, 1883

"The Hill Fossil Rose"

Collected by Charlotte Hill



Syntype
U.S. National Museum of Natural History
Smithsonian

Presented by Herb Meyer,
February 15, 2009

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Fossils of type specimens collected by Charlotte Hill



Lithymnetes guttatus
(long-horned grasshopper)



Prodryas persephone
(Nymphalid butterfly)



Palembolus florigerus
(tangle-veined fly)

Presented by Herb Meyer,
February 15, 2009

Newspaper article from the *Fairplay Flume* June 17, 1880

“Only two miles from Florissant post office are the quite famous petrified stumps. They are situated on a ranch owned by Adam Hill, and are the pride of his wife, Mrs. Charlotte Hill, who has turned naturalist, and has displayed at her home an elegant array of geological specimens. The business of collecting, arranging and selling fine specimens is aided by the fact that a vein of smoky topaz exists also on the ranch, the topaz occurring in crystals of all sizes, sometimes very beautiful, and in a carboniferous shale which outcrops around an entire hill on the same place is found

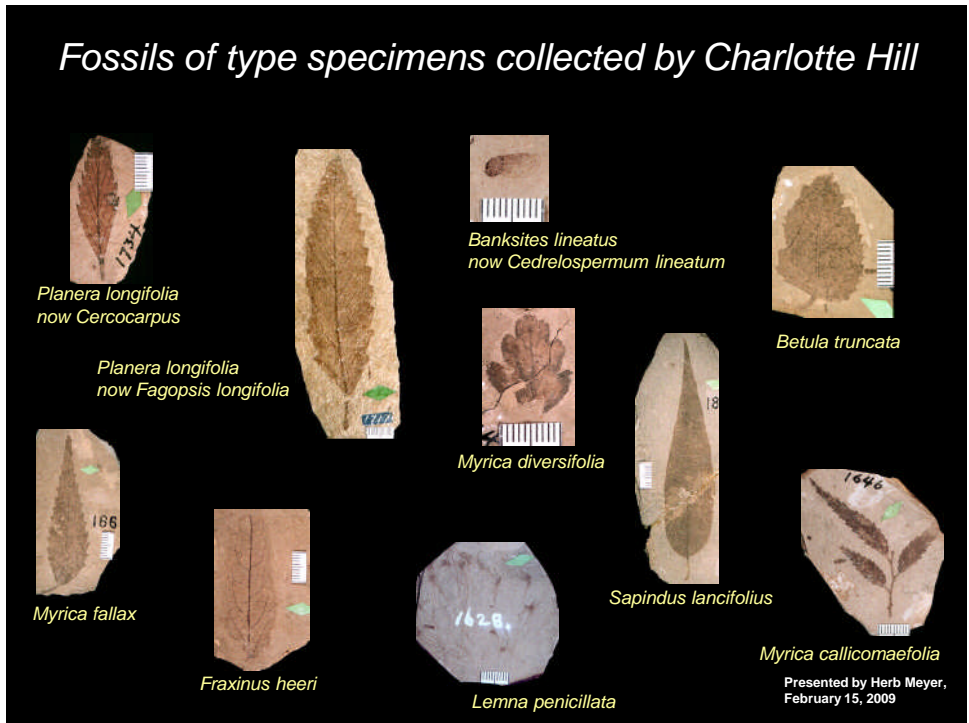
thousands of fossil leaves, branches, insects, and in a few instances butterflies and birds. The stumps are about a quarter of a mile away from the house and are twenty in number. One of them is sixty feet in circumference and stands about eight feet above ground. This place furnishes a most interesting study for the naturalist and is visited every year by large delegations from the colleges and scientific schools of the east. Specimens of smoky topaz, agatized wood or fossil leaves can be obtained by writing to Mrs. Hill at Florissant post office.”

Presented by Herb Meyer,
February 15, 2009

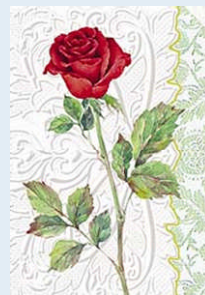
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Fossils of type specimens collected by Charlotte Hill



Charlotte Hill was the homesteader who helped unveil Florissant's place in world fame!



Presented by Herb Meyer,
February 15, 2009

John D. Coplen (Continued)

(Continued from page 4)

COPLEN PETRIFIED FOREST



This PETRIFIED FOREST was discovered in the early pioneer days of Colorado. It stands out conspicuously as one of the great wonders of the world

the valley. One log measured 15 feet in diameter and over 250 feet long to where the men quit digging forty feet down! Maybe it was the top portion of the big stump!

Determined to peddle the important paleonto-



Publication: Fairplay Flume (Fairplay, Park County); Date Number: 4

The petrified stumps, near Florissant postoffice, which form one of the greatest of natural wonders of the Rocky mountains, are subject to the hand of the vandal. A company has purchased for the sum of \$7,000 the ranch upon which these great natural curiosities rest and is about to remove one or more of them. As the fossilized stump which they are now operating on is altogether too large to admit of handling entire, being fifteen feet across the top and about the same depth to the bottom of the roots, it will be entirely cut up into sections of about two feet square, by means of steam saws, pure silica sand being placed in the cuts and serving the purpose of saw teeth. The stumps can be easily handled in this manner and will be shipped to some city museum and set up for the admiration of thousands who might never see them in their native fastnesses. This is the only excuse that can be offered for marring the works of nature, and perhaps that excuse is ample.

to California. When the Colorado Midland Railroad declared bankruptcy in 1921, from far away Coplen purchased the Florissant depot building and had it moved to the level site just east of the big stump. After having it remodeled, he opened "Coplen's Petrified Forest" resort, where tourists could come for 50 cents a day to collect fossils. Open from May until October, the resort's caretakers served meals, sold souvenirs, and hosted overnight visitors. In 1924, almost 3,000 tourists came to see the new finds! Sixteen stumps and five logs had been unearthed in



place in the library of every family, at least in Colorado!"

In the fall of 1924, the aging John Coplen put a for sale sign on the property, when he and his wife and sister Charlotte, still collecting fossils, stayed their last summer at the resort. In 1927, the Singer family purchased the property. In 1928, John D. Coplen, aged 88, died in California. He and his family owned the property for over 40 years. Had they not "preserved" it, certainly the "vandals from Chicago" that Arthur Lakes described in 1877 might have totally destroyed all evidence of the ancient forest and fossil lake we love so dearly.



logical story of the petrified forest to visitors, in the brochure for his resort, Coplen wrote: "So far as we can find out, and we have visited the Petrified Forests of both Arizona and California, we have the largest Petrified Stump in the world, and we challenge anyone to a comparison of facts." He also encouraged visitors to remember the fossil beds: "Folders of this character are often relegated to the waste basket without being read but this should be preserved and find a



Superintendent's Report (Continued)

(Continued from page 1)

Park Service for our Junior Ranger Program. In addition, we are having more special events. The No Child Left Inside Weekend and Richard Louv presentation last October earned us national recognition and it continues to be a great conversation-starter in the NPS hierarchy. In February we celebrated the 160th Birthday of Charlotte Hill, the woman who homesteaded on the present Monument and who hosted the eastern scientists when they first began to come to Florissant. But the big pay-off is in visitation. In FY 2008 we reversed a six year downward trend by increasing visitation 1.2%. As we reviewed activity for the first four months of FY 2009 (October 08 through January 09), we found that those first four months in FY 09 had 24.3% more visitors than the same four months in FY 08! Even though it was our "slack" winter season, the mild weather and expanded winter programs were enough to keep visitations climbing – even in the face of economic turmoil and high fuel prices. This is a real tribute to our Friends' support, our volunteers, and our staff.

In March, we got a scare from a wildland fire in the Monument. We are all aware that our years-long drought has heightened the danger of wildland fire, but there is still a sense of complacency, no matter how hard one thinks he can avoid it.



Looking east on Lower Twin Rocks Road. Photo by Rick Wilson, NPS.

The fire began on March 3, shortly after 3 p.m. in an area just south of the Cusak Barn at Florissant Fossil Beds National Monument. The fire moved south and eastward, staying south of Lower Twin Rocks Road and almost entirely within the Monument. By the end of the second day it had burned 41.6 acres and was nearing containment. Ultimately, the fire was completely contained within that initial 41.6 acre burn area, and all but ½ acre of the burned area was within the Monument. The fire was declared "out" on March 9. Given the warm, windy weather experienced during this fire event, we all feel fortunate there was

not more damage. But it was not [just] good luck that gave us such a relatively favorable outcome. There are many reasons that the fire was not more serious.

The quick public reporting and fast response of local fire and emergency management agencies enabled fire teams to begin suppression quickly. The response systems set in place by the Teller County Sheriff and Teller County Emergency Management were key to the quick containment of this fire, and we are grateful for their foresight and preparation. The Teller County network mobilized all available equipment within the county in minutes. Florissant Volunteer Fire Department was first to respond and made crucial inroads to slow and contain the fire. U.S. Forest Service fire fighters from Lake George were close behind Florissant VFD and assumed incident command of the fire immediately. By late afternoon, there were 24 pieces of equipment on scene from 10 to 12 different agencies.



Looking east on Lower Twin Rocks Road. Photo by Rick Wilson, NPS.

Federal, state, and local agencies have stressed the need for fuel reduction in our area for years. At Florissant Fossil Beds, our fuel reduction program had already cleared slash and combustible debris from a 300 foot wide perimeter around the majority of the Monument boundary. This fuel reduction enabled the initial fire attack to have immediate success in containing the wildfire's spread by the morning of March 4.

Community support for wildland fire efforts cannot be overstressed. It was the public that quickly reported the smoke of this fire and enabled the quick response. It is the public who has understood and supported our many efforts at fuel reduction, pile burning, and prescribed burning to prevent/reduce the recurrence of potentially catastrophic fire events.

There are also positive aspects – yes, benefits – from the fire, too,

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Superintendent's Report (Continued)

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and they should be emphasized. The net effect of this wildfire was compared by some firefighters to the desired outcome from a planned fire such as a prescribed burn – that is, a burn undertaken specifically to achieve fuel reduction benefits under the most controlled and favorable weather and moisture conditions. To achieve this outcome from an unplanned wildland fire event is testament to the expertise of our local response agencies. The fire removed the overburden of dry, combustible grasses in the burn area and made it much less likely to ignite in the near future. The fire burned quickly and was confined largely to the ground. Less than a dozen trees ignited. When you drive by the area -- and we hope you will do so -- you will see the blackened ground and perhaps some scorched trees, but you will not see a fully consumed and barren landscape.



Grasses were burned, but trees were largely spared. Photo by Rick Wilson, NPS.

Fire has a regenerative effect on the landscape. Grass is not killed

by fire, but rather it is regenerated and even invigorated by the removal of dead growth that otherwise chokes it and retards its recovery. This, in turn, produces lush new growth and improved wildlife habitat. As you drive by, you will see older trees were spared and they are interspersed with younger ones only two to six feet tall which also survived. So we will still have the forest and grasslands we live among for the future. I invite you all to join us in watching this burn area for regeneration. Let's see how long it takes to green up, grow, and return itself to a healthy ecosystem. Let's compare this burn area to other unburned areas in the Monument and Teller County to determine if there are, indeed, beneficial impacts from fire. And if there are beneficial impacts, let's re-double our efforts toward fuel mitigation, prescribed burns, and watchful diligence.



The burned grassland areas will hopefully regenerate and recover quickly. Photo by Rick Wilson, NPS.

Princeton Expedition (Continued)

(Continued from page 4)

in Mrs. Hill a person obliging enough to repair his tattered poncho. It was but a short ride from Mrs. Hill's to Judge Castello's ranch at the post office in Florissant. Here we ate a good dinner, after which several of us set to work in a deposit containing leaves and fishes while Scott and Professor Brackett visited Mrs. Hill's to make arrangements for the morrow. After extracting several fishes wanderers all came in, beds were laid in the hay loft, prayers were said (or forgotten) and we sank to pleasant dreams".

The insects the students collected filled five trays. The collection of plants comprised 25 trays containing more than 900 specimens. At least 180 of the plant and insect specimens became type specimens. Samuel Scudder and Leo Lesquereux described many of these type specimens. Osborn, Scott, and Speir described a

number of fish specimens collected at Florissant, including the new species *Trichophanes copei*.

The expedition diaries, journals, and photographs document a remarkable expedition and contribute to the history of paleontology in America. The fossils of the Princeton expedition have allowed researchers in the past, and will allow those in the future, to better understand the paleontology and paleoecology of the Florissant fossil beds.

Steven Veatch is the author of a number of articles on earth science topics. He lives next to the Florissant Fossil Beds National Monument where he is a volunteer and serves as President of the Friends of the Florissant Fossil Beds, Inc.

Advertising Rates

Business Card Size:	\$6.00
¼ Page	\$12.00
½ Page	\$24.00
Full Page	\$48.00

You may submit advertisements to: Steven Veatch, P.O. Box 5938, Woodland Park, CO 80866 or via email: sveatch@fossilbeds.org.

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See us at:
www.fossilbeds.org

Email Addresses Wanted

Please send feedback on the newsletter or any topic you are interested in to Melissa Barton (webmaster@fossilbeds.org). If you are interested in serving on various committees or the Board, please contact Sally Maertens at the address to the left or email (smaertens@fossilbeds.org).

Please provide us with feedback on the newsletter or any topic you are interested in to Melissa Barton (webmaster@fossilbeds.org). We would also like to know who is interested in serving on various committees or on the Board contact us by email to sammckind@aol.com.

For questions, contact the Editor.

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The Friends of the Florissant Fossil Beds newsletter is published quarterly by the Friends of the Florissant Fossil Beds and is governed by the by-laws of the Friends. Articles appearing in the newsletter do not necessarily reflect the views of the National Monument, officers, members, or sponsors of the Friends.

About Our Organization....

In 1987, the Friends of the Florissant Fossil Beds, Inc. was organized by a group of dedicated individuals interested in assisting the National Park Service in its mission to preserve and protect our national treasures. As a non-profit organization, the Friend's mission is to secure resources to help preserve the fossils and promote programs and activities that enhance the Monument's education, research, and scientific objectives.

Membership fees and donations to the Friends of Florissant Fossil Beds are used for:

- Environmental education programs
- Field seminars
- Year-round interpretive programs
- Jr. Ranger programs
- Paleontological and geological resources
- Natural history resources
- Publications

Past accomplishments and ongoing support by the Friends of Florissant Fossil Beds includes:

- Major funding of the yurt shelters
- Travel and research funding for the Monument's paleontologist
- Assistance in the purchase of an all-terrain wheelchair for handicapped visitors
- Financial support for the University of Denver's (fossil data) Digitization Project
- Purchase of furniture for the seasonal rangers and intern housing
- Funding for other special Monument related celebrations and special events (such as the dedication of the new stump exhibit area May 11, 2002)
- Planning, funding, and coordinating the Monument's 30th Anniversary Celebration (1999) and 35th Anniversary Celebration (2004)
- Funding for the Monument's newspapers each spring
- Funding and coordination of annual Summer Educational Seminars Program

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