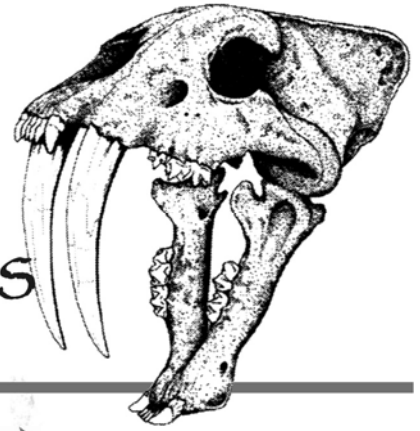


NEWS

Florida Fossil Hunters

Volume 19, Number 3

March 2009



Prez Sez:

We want to thank Marsha Wright and Marge Fantozzi for agreeing on such short notice to show us all how to make a plaster jacket at last month's meeting. The demonstration was so popular that we did some at the Science Center's FossilFest and plan to do more at the Fossil Fair in October.

This month's meeting will have a "**Show and Tell**" theme. Bring in your favorite fossils and/or minerals to the meeting so everyone can see them. We'll also go over the budget for this year.

Fossil bucks will be available for those of you that have earned them these past few months. Be sure to get yours for the auction coming up in June.

Our tentative schedule for the rest of the year is:

March	Show & Tell
April	Dinosaurs
May	Presentation by Dr. Gordon Hubbell
June	Fossil Buck Auction
July	Summer picnic
August	Speaker
September	Fossil Fair preparation
October	Speaker
November	Fossil Buck Auction
December	Holiday party

**NEW MEETING
TIMES**
**3RD SATURDAY
of EVERY MONTH**
until Summer
Kid's Fossil Blast!: 2 - 3pm
(every other month)
Meetings: 3 - 5pm

Coming Events

MEETINGS SATURDAY at the Orlando Science Center

March 21st
3:00 pm Meeting

April 18th
2:00 pm Kids' Fossil Blast
3:00 pm Meeting

May 16th
3:00 pm Meeting

For more info...
www.floridafossilhunter.com

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Fragments

Piece on the Peace

Dave Dunaway might head a couple Peace River day trip digs in April depending on the weather, etc. Check April newsletter and website for more info.



The annual Peace River camp-out and fossil dig will be held the weekend of May 2/3 or May 16/17. As the time gets closer, we'll have a better idea which weekend would have better weather and water level.

Field Trips

Graves Mountain

Graves Mountain in Georgia will open the last weekend in April. Contact Shelley at 407-891-1260 for more info.

Vulcan Mine Field Trips

There will be field trips to the Vulcan Mine on the 2nd Saturdays of the month: **March 14th, April 11th, May 9th**, etc. Be there before 9 am to be escorted into the mine. Remember...only members of the fossil clubs that have made arrangements are allowed in. *Check our website for further information and directions.*

Gatorland

Dave Dunaway will be arranging a field trip to Gatorland to hear the gators "roar" sometime in April.

Fossils ala Tailgate

Kelly and Laura Johnson will be at Vulcan Mine on Saturday, March 14th from 7 am to 9 am before the field trip. They'll have some minerals, petrified wood and agatized corals for sale in the parking lot. For more info email Kelly at LauParaMin@aol.com

Fossil ID

Do you have things that you can't identify? Bring them to the meetings and with all the expertise available among our membership, maybe we can figure out what you've got.

Kids' Fossil Blast

The Kids' Fossil Blast is a fun, hands-on way to find out about fossils for kids mainly ages 4 to 14 yrs. Each meeting we focus on a different type of fossil using real fossils, replicas and printed materials. Sometimes the kids even get to take real fossils home. We meet every other month at 2:00 pm at the Orlando Science Center. ***Our next kids' program will be at the April 18, 2009 meeting.***

Mineral and Fossil Shows, Exhibits and more...

The 40th Annual Gem and Mineral Show

Central Florida Mineral and Gem Society is having their show March 28—29, 2009, see flyer on page 3.

Venice Shark Tooth Festival

The "Shark Tooth Capital of the World" is having its festival from April 17th through the 19th. There are LOTS of shark tooth and fossil vendors at this event. There are also arts and crafts vendors, food vendors and kids' activities. And if that's not enough to entertain you, you can always go walking on the beach looking for shark teeth.

Admission is \$3; children 12 and under are free. The hours are: Friday 4 pm to 9pm, Saturday 10 am to 9 pm, Sunday 10 am to 5 pm.

It will be held at the festival grounds of the Venice Municipal Airport. Directions: Take I-75 south to Exit 193. Turn right onto Jacaranda Blvd. Turn right onto Center Rd. and go 2.5 mi. Cross over bypass then turn right onto Tamiami Trail. After crossing the bridge, turn left onto Avenida del Circo. Turn left onto Airport Ave. and follow the signs to the festival grounds.

The Mid America Paleontology Society (MAPS) will hold its National Fossil Exposition on April 3rd thru 5th at the Western Illinois University in Macomb, Illinois. For more information go to midamericapaleo.org

Orlando Science Center Fossilfest

Thanks to all of you that made this event a great success.....

Dave Dunaway, Nancy Patterson, Dave Cass, Shelley Zimmerman, Paul, Mary and James Bordenkircher, Elise and Zachary Cronin-Hurley, CJ Curtis, Rachelle and Tyler Wierengo, Glory Kerr, Art Dreves, Elaine Howard, Salvator Sansone (and son), Russell Brown, Bonnie Cronin and, of course, Jimmy Waldron.

The displays were great, the information enlightening and the plaster jacket demos were entertaining as well as educational.

For those of you who haven't had the opportunity to see them yet, there are five **display cases** at the Science Center now filled with fossils lent by the club and Russell Brown, Bonnie Cronin and Jeremy Smith. Check them out and look for more in the future.

FLORIDA FOSSIL HUNTERS FOSSIL FAIR

October 10 & 11, 2009

Flyer now available on our website



Orlando Science Center FossilFest

Left top: Russell Brown sharing the story of Lulu Creek.

Left Bottom: Dave Dunaway and Art Dreves with the sloth skulls.

Picture Below: Zach Cronin-Hurley, Rachelle Wierengo and Elise Cronin-Hurley demonstrating the art of plaster jackets.



The 40th Annual Gem and Mineral Show

Free Parking



**Sponsored by The Central Florida Mineral and Gem Society
(A Non-Profit Community Education Group)**

Central Florida Fairgrounds
4603 W. Colonial Dr.
Orlando, FL 32808

Adults \$4.00
Students \$2.00 Children under 12 are free with parents

****\$1.00 Off
Admission If
You Present
This Ticket!**



Dinner

*** Saturday, March 28, 2009 9 am to 5 pm ***
*** Sunday, March 29, 2009 9 am to 5pm ***

- Custom Made Jewelry
- Mineral Specimens
- Unique Beads
- Fossils and Artifacts
- Cabochon and Faceting Demonstrations
 - Silent Auctions and Lectures
- Grand Prizes/Door Prizes Every Hour
- Special Children's Area & Activities
- Lapidary Books & Supplies--Used Equipment



****Limit 1 discount per person. Good for up to 6 people.**

Contact us at miller345@cfl.rr.com

Clovis-era Tool Cache 13,000 Years Old

Shows Evidence Of Camel, Horse Butchering

ScienceDaily (Feb. 26, 2009)

Adapted from materials provided by University of Colorado at Boulder

— *More than 80 stone implements were discovered together in Boulder city limits by landscapers. A biochemical analysis of a rare Clovis-era stone tool cache recently unearthed in the city limits of Boulder, Colo., indicates some of the implements were used to butcher ice-age camels and horses that roamed North America until their extinction about 13,000 years ago, according to a University of Colorado at Boulder study.*

The study is the first to identify protein residue from extinct camels on North American stone tools and only the second to identify horse protein residue on a Clovis-age tool, said CU-Boulder Anthropology Professor Douglas Bamforth, who led the study. The cache is one of only a handful of Clovis-age artifact caches that have been unearthed in North America, said Bamforth, who studies Paleoindian culture and tools.

The Clovis culture is believed by many archaeologists to coincide with the time the first Americans arrived on the continent from Asia via the Bering Land Bridge about 13,000 to 13,500 years ago, Bamforth said.

Named the Mahaffy Cache after Boulder resident and landowner Patrick Mahaffy, the collection is one of only two Clovis caches -- the other is from Washington state -- that have been analyzed for protein residue from ice-age mammals, said Bamforth. In addition to the camel and horse residue on the artifacts, a third item from the Mahaffy Cache is the first Clovis tool ever to test positive for sheep, and a fourth tested positive for bear.

Dozens of species of North American mammals went extinct by the end of the Pleistocene, including American camels, American horses, woolly mammoth, dire wolves, short-faced bears, saber-toothed cats, woolly rhinos and giant ground sloths. While some scientists speculate ice-age mammals disappeared as a result of overhunting, climate change or even the explosion of a wayward asteroid, the reasons are still unresolved, Bamforth said.

The Mahaffy Cache consists of 83 stone implements

ranging from salad plate-sized, elegantly crafted bifacial knives and a unique tool resembling a double-bitted axe to small blades and flint scraps. Discovered in May 2008 by Brant Turney -- head of a landscaping crew working on the Mahaffy property -- the cache was unearthed with a shovel under about 18 inches of soil and was packed tightly into a hole about the size of a large shoebox. It appeared to have been untouched for thousands of years, Bamforth said.

Although the surface of the house lot had been lowered by construction work over the years, an analysis of photos from the Mahaffy Cache excavation site by CU-Boulder geological sciences Emeritus Professor Peter Birkeland confirmed the approximate age of sediment layer containing the Clovis implements. The site appears to be on the edge of an ancient drainage that ran northeast from Boulder's foothills, said Bamforth.

"The idea that these Clovis-age tools essentially fell out of someone's yard in Boulder is astonishing," he said. "But the evidence I've seen gives me no reason to believe the cache has been disturbed since the items were placed there for storage about 13,000 years ago."

All 83 artifacts were shipped to the anthropology Professor Robert Yohe of the Laboratory of Archaeological Science at California State, Bakersfield for protein residue tests that were funded by Mahaffy. The protein residue on the artifacts was tested against various animal antisera, a procedure similar to standard allergy tests and which can narrow positive reactions down to specific mammalian families, but not to genera or species.

"I was somewhat surprised to find mammal protein residues on these tools, in part because we initially suspected that the Mahaffy Cache might be ritualistic rather than a utilitarian," said Yohe. "There are so few Clovis-age tool caches that have been discovered that we really don't know very much about them."

While the quality and patterns on several of the artifacts resemble Clovis stonework, "It was the camel and horse protein results that were the clincher for me," said Bam-

forth. "We haven't had camels or horses around here since the late Pleistocene." The artifacts that showed animal protein residues were each tested three times to ensure accuracy.

The artifacts were buried in a coarse, sandy sediment overlain by dark, clay-like soil and appear to have been cached on the edge of an ancient stream, said Bamforth. "It looks like someone gathered together some of their most spectacular tools and other ordinary scraps of potentially useful material and stuck them all into a small hole in the ground, fully expecting to come back at a later date and retrieve them."

Bamforth said he knew immediately that much of the stone used to craft the tools in the cache originated from Colorado's Western Slope and perhaps as far north as southern Wyoming. The stone appears to have come from at least four distinct regions, including sites in Colorado's Middle Park south of Steamboat Springs, he said.

Bamforth believes the type of people who buried the Mahaffy Cache "lived in small groups and forged relationships over large areas." "I'm skeptical that they wandered widely, and they may have been bound together by a larger human network." A single individual could have easily carried all of the Mahaffy Cache tools a significant distance, he said.

One of the tools, a stunning, oval-shaped bifacial knife that had been sharpened all the way around, is almost exactly the same shape, size and width of an obsidian knife found in a Clovis cache known as the Fenn Cache from south of Yellowstone National Park, said Bamforth. "Except for the raw material, they are almost identical," he said. "I wouldn't stake my reputation on it, but I could almost imagine the same person making both tools."

Climatic evidence indicates the Boulder area was cooler and wetter in the late Pleistocene and receding glaciers would have been prominent along the Front Range of Colorado, he said. "The kind of animals that were wandering around present-day Boulder at the end of the last ice age -- elephants, camels, huge bears and ground sloths -- are creatures we would expect to see in a zoo today."

A 2008 study led by the University of Oregon offers evidence that a cadre of comets exploded over North America about 12,900 years ago, triggering massive fires that caused the extinction of ice-age mammals and perhaps even the Clovis people. The evidence is based on a thin layer of microscopic diamonds found in ancient soil layers



Douglas Bamforth, Anthropology professor for the University of Colorado at Boulder places his hand on one of more than 80 artifacts unearthed about two feet below Boulder resident Patrick Mahaffy's front yard during a landscaping project this past summer. The artifacts, which may have been made during the Clovis period nearly 13,000 years ago, were neatly arranged in a cache near where this portrait was taken, suggesting that the users of these instruments may have intended to reuse them. (Credit: Photo by Glenn J. Asakawa/University of Colorado)

that could only have been created by searing heat and pressure transforming carbon on Earth's surface.

Mahaffy, who initially thought the stone tools were just a few hundred years old, called the CU-Boulder anthropology department the day of the discovery, and Bamforth came to examine the cache the following day. "I think it's safe to say Doug got pretty excited based on his background and knowledge of the area," said Mahaffy, a Boulder biotechnology entrepreneur. The high-tech tests that confirmed the antiquity of the tools "are a nice marriage between modern biotechnology and anthropology," Mahaffy said.

"There is a magic to these artifacts," said Mahaffy. "One of the things you don't get from just looking at them is how incredible they feel in your hand --they are almost ergonomically perfect and you can feel how they were used. It is a wonderful connection to the people who shared this same land a long, long time ago." Mahaffy said the artifacts will likely wind up in a museum except for a few of the smaller pieces, which will be reburied at the cache site.

Fossil skull of *giant* toothy seabird found in Peru

By ANDREW WHALEN, Associated Press Writer – Sat Feb 28, 9:19 am ET

LIMA, Peru – The unusually intact fossilized skull of a giant, bony-toothed seabird that lived up to 10 million years ago was found on Peru's arid southern coast, researchers said Friday.

The fossil is the best-preserved cranium ever found of a pelagornithid, a family of large seabirds believed to have gone extinct some 3 million years ago, said Rodolfo Salas, head of vertebrate paleontology at Peru's National History Museum.

The museum said in a statement that the birds had wingspans of up to 20 feet (6 meters) and may have used the toothlike projections on their beaks to prey on slippery fish and squid. But studying members of the Pelagornithidae family has been difficult because their extremely thin bones — while helpful for keeping the avian giants aloft — tended not to survive as fossils.

"Its fossils are very strange, very rare and very hard to find," Salas told The Associated Press.

The cranium discovered in Peru is 16 inches (40 centimeters) long and is believed to be 8 million to 10 million years old, based on the age of the rock bed in which it was found.

"Rarely are any bones of these gigantic, marine birds found fossilized uncrushed, and to find an uncrushed skull of this size is very significant," said Ken Campbell, curator of vertebrate zoology at the Natural History Museum of Los Angeles.

Campbell, who examined photos of the find but was not involved in the dig, said he knows of "no specimens of comparable quality."

Dan Kepska, a paleontology researcher at North Carolina State University who also was not part of the project, agreed that the skull is the most complete ever reported.



A paleontologist cleans a fossilized bird cranium at Peru's National History Museum in Lima, Friday, Feb. 27, 2009. The fossil is the best-preserved cranium ever found from a pelagornithid, a species believed to have gone extinct some 3 million years ago, according to Rodolfo Salas, head of vertebrate paleontology at Peru's National History Museum.

He called the birds "one of the great enigmas of avian paleontology."

With fossils discovered in North America, North Africa and even Antarctica, Kepska said, the birds were ubiquitous only a few million years before humans evolved and scientists puzzle over why they died out. Some believe they are related to gannets and pelicans, while other say they are related to ducks.

Campbell said the Peru find "will undoubtedly be of great importance to our understanding of these gigantic birds, and it will help clarify the relationships of the other fossil pelagornithids found in the Pisco Formation."

The formation, a coastal rock bed south of the capital, Lima, is known for yielding fossils of whales, dolphins, turtles and other marine life dating as far back as 14 million years.

Florida Fossil Hunters

is a fun and educational group whose goal is to further our understanding of the prehistory of Florida. We encourage family participation and welcome explorers of all ages.

Membership is \$17 per year. Other household members may be included at no charge.

Meetings are held the third Wednesday of each month at 7:00pm, check the website for the location.

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Membership Application

Names: _____

Associate Members: _____

Address: _____

City: _____

State: Zip: _____

e-mail: _____

____ New ____ Renewal

Please list any interests, experience, talents or just plain enthusiasm, which you would like to offer to the club:

Membership is \$17 per year. Our membership year runs from January to December. All renewals are done in December and January.

Please make your checks payable to:

Florida Fossil Hunters
 Post Office Box 540404
 Orlando, Florida 32854-0404

Associate members are people in the same household, included at no extra charge, 2 adult votes per household.

Newsletter Policy

Articles must be submitted by the first of the month to be included in that month's newsletter. These can be mailed to the above Post Office Box or e-mailed to: elise@liseydreams.com. Articles can be sent as text in the e-mail or in Microsoft Word files (*.doc).

Florida Fossil Hunters Mark Your Calendar

March 7 - 8, 2009

Tampa Bay Fossil Fest

March 14, 2009

Vulcan Mine Field Trip (see page 2 for more info)

March 21, 2009

3:00pm FFH Meeting

March 28 - 29, 2009

The 40th Annual Gem & Mineral Show

see ad on pg 3

March 31 - April 5, 2009

18th Annual Thomas Farm Dig or
Hummingbird Challenge V

April 3 - 5, 2009

The Mid America Paleontology Society (MAPS)
National Fossil Exposition

April 11, 2009

Vulcan Mine Field Trip (see page 2 for more info)

April 17 - 19, 2009

Venice Shark Tooth Festival

April 18, 2009

Kid's Fossil Blast 2:00pm

3:00pm FFH Meeting

May 9, 2009

Vulcan Mine Field Trip (see page 2 for more info)

May 16, 2009

3:00pm FFH Meeting

**Time to Renew!!! - It's time to pay your 2009 dues
which are still only \$17 per household.**

Please fill out a renewal form on pg 7 to renew.

More information on these events on page 2

Visit us online at www.floridafossilhunters.com

Articles and comments should be sent to: elise@liseydreams.com

Florida Fossil Hunters

Post Office Box 540404

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Florida Fossil Hunters News