FLORIDA PALEONTOLOGICAL SOCIETY

NEWSLETTER

VOLUME 29 NO. 1

WINTER 2012

Florida Paleontological Society, Inc. Winter Meeting - December 9-11, 2011 Lake City/Branford, Florida

It was a cold and windy morning when FPS members began to arrive at the Branford quarry. Despite the cool temperatures, this was one of the largest turnouts for an FPS field trip. Over 60 members braved the chilly temperatures to collect fossils. It did take some wrangling to get everyone fitted with safety vests and hard hats, but as soon as ev-

eryone was assembled, Roger Portell, our field trip leader gave us all safety rules and a little bit of history about the quarry and the geology of the area.

The Branford quarry is located west of Lake City and close to the famous Suwannee River. It is an active limerock quarry that produces crushed stone used as road base. Within the quarry the Upper Eocene Ocala Limestone is exposed by the mining operations. Also, exposures of the Eocene/Oligocene Bumpnose Limestone and Oligocene Suwannee Limestone are occasionally uncovered. Many of the collectors on the trip scoured the open pit for the abundant echinoids found in these formations. Members were able to find several large sea biscuits that belong to the famwith a couple of the

past president of the

ily Brissidae. Almost **Daniel Porter of Tallahassee inspects everyone's finds.** ridian and Caribbean everyone walked off Photo Credit: Jim Toomey

small sand dollars, Wythella. Some members were also lucky enough to discover one of the many crab species that are unique to the area. Oysters and scallops were also popular with the collectors, along with many molds and casts of snails and clams and the planispiral worm tube, known as Rotularia vernoni.

After a full morning of collecting, some people sampled the local fare at one of the country buffets in downtown Branford. Others braved the cold and took advantage of the low river levels to walk the river bed and do some fossil prospecting on their own.

The festivities continued that evening when everyone met back at the Fairfield Inn in Lake City for the general meeting. President Wally Ward called the meeting to order and thanked the weekend's organizers and our field trip leaders. Andy Lawn, FPS member and

> Southeastern Geological Society (SEGS), introduced himself and shared with members a little about the SEGS. He also brought along some show and tell items including strange looking rock formation he collected along the Alapaha River and some fulgurites found in a sand mine in southern Florida. Then Wally introduced the evening's speakers, Jack Hutchings and Matt Jarrett, both graduate students at USF and recipients of the Gary Morgan Award. Jack gave a preview of research he is beginning on the Naticidae (Moon Snails). This is an interesting group because they are not only carnivorous but also cannibalistic. Then Matt recapped a previous study he conducted on the Flo-Cross-barred Clam (Chione), using mor-

phometric analysis to distinguish fossil and recent populations. The evening concluded with another successful silent auction to benefit the societies' scholarship programs.

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Craig and Laurie Samuel of Weeki Wachee are avid collectors of fossil echinoids and have been coming to the Branford area to collect for many years. Photo Credit: Mike Hein

Florida Paleontological Society Spring Meeting, April 27-29, 2012 Gainesville, Florida

Hotel and banquet arrangements have been made at the Paramount Plaza Hotel [2900 SW 13th Street, Gainesville, FL 32608]. The Banquet will include fruit, salad, fried chicken, grilled pork rib, fried catfish, southern vegetables, cornbread and biscuits, and dessert.

Field trip will be to the Haile Complex. It is a lime rock quarry, with exposures of the Eocene Ocala Limestone. You can expect to find echinoids, crabs, moldic mollusks, marine vertebrates, and the occasional terrestrial vertebrates from sink holes and dissolution features. Be prepared for all weather conditions. Wear long pants and boots. Gloves, buckets, rock hammer, and screw driver or oyster knife are recommended for collecting.

Be sure to check out the newest exhibit "Cruisin' the Fossil Freeway", which also features the paleo-artwork of several of our members. More details coming soon. Any questions? email fps@flmnh.ufl.edu or call (352) 273-2108.

Florida Paleontological Society, Inc. Board Meeting December 11, 2011 Lake City, Florida

The meeting was called to order by President Wally Ward. Other members in attendance were: Melissa Cole, Kevin D. Hutchenson, Roger W. Portell, Sara A. Morey, Phil Whisler, Craig Samuel, Paul Roth, Alex Kittle, Marge Fantozzi, and Marcia Wright.

Roger Portell reported that we had purchased 30 more hard hats, vests, and small traffic cones. Phil Whisler kindly labeled these "FPS" for use by attendees at our field trips. Mr. Whisler also brought our existing pump into working order, so the \$300 allotted for repair of that pump is not needed. Many thanks to Phil Whisler. The archival copies of FPS publications have been bound and are housed in the FPS section of the warehouse.

Phil Whisler gave the Treasurer's Report. Roger Portell suggested that the next report should include a value for the society inventory on hand.

Roger Portell motioned, seconded by Phil Whisler, that \$1,000 be moved annually into the Morgan Award funds in order to increase the interest income produced for the award. The goal is to have the annual interest be sufficient to fund the award each year. The motion passed.

Field trip discussion followed and several problems were addressed. Since we always have to have a notarized liability waiver from each field trip participant, Paul Roth made a motion that we pay for Alex Kittle to get a notary license. Craig Samuel seconded the motion and it passed. That way we can notarize those waivers that did not get done ahead of time. Member, Pam Plummer, was kind enough to notarize the late ones for this trip and we give her our thanks.

The large number of attendees on our field trips is becoming a dilemma for the society. While we are pleased with the enthusiasm of our members, quarry owners are not comfortable with the large groups that we are bringing into their businesses. It also limits the number of quarries that will even let us in. Though no decisions were made, discussions followed about maybe having to limit the number to 40 or less for the

trips. How would participation be determined? We are probably going to have to also have a minimum age (perhaps 16 yrs old) for most field trips. We will try to have some suggestions for the next board meeting.

The Florida Museum of Natural History has scheduled a new exhibit based on the book, "Cruisin' the Fossil Freeway". This will run from Feb. 4 – Sept 3, of 2012. Roger Portell moved and Kevin Hutchenson seconded that FPS contribute \$400 for exhibit expenses. The motion passed.

Paul Roth requested that FPS join with the American Geological Institute and the National Parks Service as an avocational partner and participate in National Fossil Day activities on October 17, 2012 at the Castillo de San Marcos in St. Augustine. We would have a display and FPS members on hand. Sara Morey so moved and Melissa Cole seconded. The motion passed.

It is time to select a new member-owned collection for the FPS display case at the Fossil Hall in the FLMNH to replace the present one so kindly loaned by Paul Roth. Roger Portell moved and Melissa Cole seconded to ask Russell Brown to loan specimens from his collection. The motion passed. Bonnie Cronin will ask him for us.

Roger Portell moved that we divest the society of excess print inventory, especially the Converse book on fossil preparation, by giving some away to new members and giving some to groups that may use them. Melissa Cole seconded the motion, which passed.

Roger Portell moved that the spring FPS meeting be April 27-29, 2012, in Gainesville, FL taking advantage of the "Crusin' the Fossil Highway" exhibit at the museum. Marge Fantozzi seconded the motion, which passed.

Melissa Cole moved that the meeting adjourn and it was seconded and passed by acclimation at 9:25 AM.

Respectfully submitted, Marcia Wright, Secretary

FLORIDA PALEONTOLOGICAL SOCIETY, INC.

As stated in the Articles of Incorporation, "The purposes of this Corporation shall be to advance the science of Paleontology, especially in Florida, to disseminate knowledge of this subject and to facilitate cooperations of all persons concerned with the history, stratigraphy, evolution, ecology, anatomy, and taxonomy of Florida's past fauna and flora. The Corporation shall also be concerned with the collection and preservation of Florida fossils." (Article III, Section 1).

CODE OF ETHICS

ARTICLE X

Section 1. Members of the Florida Paleontological Society, Inc., are expected to respect all private and public properties.

Section 2. No member shall collect without appropriate permission on private or public properties.

Section 3. Members should make a sincere effort to keep themselves informed of laws, regulations, and rules on collecting on private or public properties.

Section 4. Members shall not use firearms, blasting equipment or dredging apparatuses without appropriate licenses and permits.

Section 5. Members shall dispose of litter properly.

Section 6. Members shall report to proper state offices any seemingly important paleontological and archaeological sites.

Section 7. Members shall respect and cooperate with field trip leaders or designated authorities in all collecting areas.

Section 8. Members shall appreciate and protect our heritage of natural resources.

Section 9. Members shall conduct themselves in a manner that best represents the Florida Paleontological Society, Inc.

UF study names new ancient crocodile relative from the land of *Titanoboa*

UF Press Release by Danielle Torrent dtorrent@flmnh.ufl.edu

Did an ancient crocodile relative give the world's largest snake a run for its money?

In a new study appearing in the journal Palaeontology, University of Florida researchers describe a new 20-foot extinct species discovered in the same Colombian coal mine with *Titanoboa*, the world's largest snake. The findings help scientists better understand the diversity of animals that occupied the oldest known rainforest ecosystem, which had higher temperatures than today, and could be useful for understanding the impacts of a warmer climate in the future.

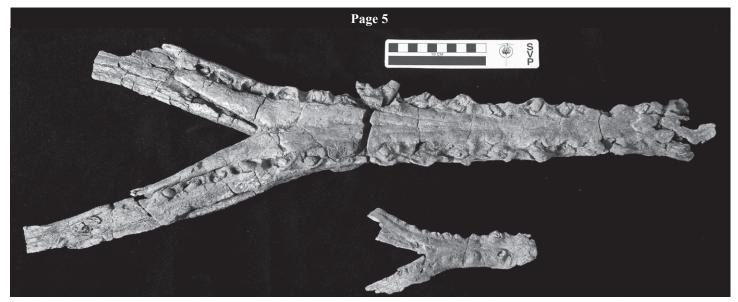
The 60-million-year-old freshwater relative to modern crocodiles is the first known land animal from the Paleocene New World tropics specialized



University of Florida researchers Jonathan Bloch (left) and Alex Hastings unearth fossils from the 60-million-year-old Cerrejon formation in northeastern Colombia, one of the world's largest open-pit coal mines. Photo credit: Edwin

ANNUAL DUES for the FPS are \$10.00 for Associate Membership (persons under age 18) and \$20.00 for Full Membership (persons over age 18) and Institutional Subscriptions. Couples may join for \$25.00, and Family Memberships (3 or more persons) are available for \$30.00. Persons interested in FPS membership need only send their names, addresses, and appropriate dues to the Secretary, Florida Paleontological Society, Inc., at the address on page 2. Please make checks payable to the FPS. Members receive the FPS newsletter, Florida Fossil Invertebrates, Fossil Species of Florida, and other random publications entitled to members.

NEWSLETTER POLICY: All worthy news items, art work, and photographs related to paleontology and various clubs in Florida are welcome. The editors reserve the right not to publish submissions and to edit those which are published. Please address submissions to the Editors, Florida Paleontological Society, Inc. Newsletter, at the address inside the front cover.



Acherontisuchus guajiraensis, top, and, Cerrejonisuchus improcerus, the first ancient crocodyliform found in the Cerrejon open-pit coal mine. Photo credit: Kristen Grace/Florida Museum of Natural History

for eating fish, meaning it competed with *Titanoboa* for food. But the giant snake could have consumed its competition, too, researchers say.

"The younger individuals were definitely not safe from *Titanoboa*, but the biggest of these species would have been a bit much for the 42-foot snake to handle," said lead author Alex Hastings, a graduate student at the Florida Museum of Natural History and 2009 recipient of FPS's Gary Morgan Award.

The new species is a dyrosaurid, commonly believed to be primarily ocean-dwelling, coastal reptiles. The new adult specimens challenge previous theories the animals only would have entered freshwater environments as babies before returning to sea.

Fossils of a partial skeleton of the species, *Acherontisuchus guajiraensis*, show dyrosaurids were key players in northeastern Colombia and that diversity within the family evolved with environmental changes, such as an asteroid impact or the appearance of competitors from other groups, said Christopher Brochu, an associate professor of vertebrate paleontology in the department of geoscience at the University of Iowa, who was not involved in the study.

"We're facing some serious ecological changes now," Brochu said. "A lot of them have to do with climate and if we want to understand how living things are going to respond to changes in climate, we need to understand how they responded in the past. This really is a wonderful group for that because they managed to survive some catastrophes, but they seemed not to survive others and their diversity does seem to change along with these ecological signals."

The species is the second ancient crocodyliform found in the Cerrejon mine of northern Colombia, one of the world's largest open-pit coal mines. The excavations were led by study co-authors Jonathan Bloch,

Florida Museum associate curator of vertebrate paleontology, and paleobotanist Carlos Jaramillo of the Smithsonian Tropical Research Institute.

"This one is related to a group that typically had these long snouts" Hastings said. "It would have had a relatively similar diet to the other (coastal) species, but surprisingly it lived in a more freshwater environment."

The genus is named for the river Acheron from Greek mythology, "the river of woe," since the animal lived in a wide river that emptied into the Caribbean. Unlike the first crocodile relative found in the area, which had a more generalized diet, the snout of the new species was long, narrow and full of pointed teeth, showing a specialization for hunting the lungfish and relatives of bonefish that inhabited the water.

"The general common wisdom was that ancestrally all crocodyliforms looked like a modern alligator, that all of these strange forms descended from a more generalized ancestor, but these guys are showing that sometimes one kind of specialized animal evolved from a very different specialized animal, not a generalized one," Brochu said. "It's really showing us a level of complexity to the history, that 10 years ago was not anticipated."

During the Paleocene in South America, the environment was dominated by reptiles, including giant snakes, turtles and crocodiles. The dyrosaurid family originated in Africa about 75 million years ago, toward the end of the age of dinosaurs, and arrived in South America by swimming across the Atlantic Ocean.

"The same thing that snuffed out the dinosaurs killed off most of the crocodiles alive at the time," Hastings said. "The dyrosaurids are one of the few groups to survive the extinction and later become more successful."

Earliest horses show past global warming affected body size of mammals

UF Press Release by Danielle Torrent dtorrent@flmnh.ufl.edu

As scientists continue developing climate change projection models, paleontologists studying an extreme short-term global warming event have discovered direct evidence about how mammals respond to rising temperatures.

In a study appearing in Science, researchers from eight institutions led by scientists from the University of Florida and University of Nebraska found a correlation between temperature and body size in mammals by following the evolution of the earliest horses about 56 million years ago: As temperatures increased, their body size decreased.

"Horses started out small, about the size of a small dog like a miniature schnauzer," said co-author Jonathan Bloch, associate curator of vertebrate paleontology at the Florida Museum of Natural History. "What's surprising is that after they first appeared, they then became even smaller and then dramatically increased in size, and that exactly corresponds to the global warming event, followed by cooling. It had been known that mammals were small during that time and that it was warm, but we hadn't understood that temperature specifically was driving the evolution of body size."

Sifrhippus, the earliest-known horse, first appeared in the North American fossil record during the Paleocene-Eocene Thermal Maximum (PETM). During this 175,000-year climate event, increased concentrations of carbon dioxide in the atmosphere and oceans caused average global temperatures to rise 10 to 20 degrees. By analyzing the size and isotopes of fossils collected in Wyoming's Bighorn Basin, researchers traced the evolution of Sifrhippus from an estimated 12-pound animal that shrank during a 130,000-year period about 30 percent to 8.5 pounds — the size of a small house cat — then increased to about 15 pounds during the next 45,000 years.

"This is the highest-resolution terrestrial record of its kind from anywhere in the world and it shows how climate changed in Wyoming at that time," said lead author Ross Secord, who began geochemical analysis of the horse teeth and other mammals as a postdoctoral researcher with Bloch before joining the University of Nebraska-Lincoln in 2008. "When Jon and I started plotting oxygen data from the mass spectrometer, we could immediately see that the shifts in size of horses and temperature were mirror images of each other."

Bloch said the project began about seven years ago when former UF student and study coauthor Stephen Chester, now an anthropology doctoral candidate at Yale University, measured horse teeth that seemed to be too large for their age and became smaller through the geologic section. The findings raise important questions about how animals might respond to future rapid climate change.

"We're seeing about a third of the mammals getting smaller and some of them getting a lot smaller, by as much as half of their original body size," Secord said. "Because warming happened much slower during the Paleocene-Eocene Thermal Maximum, mammals had more time to adjust their body size. So, it's not clear that we're going to see the same thing happening in the near future, but we might."

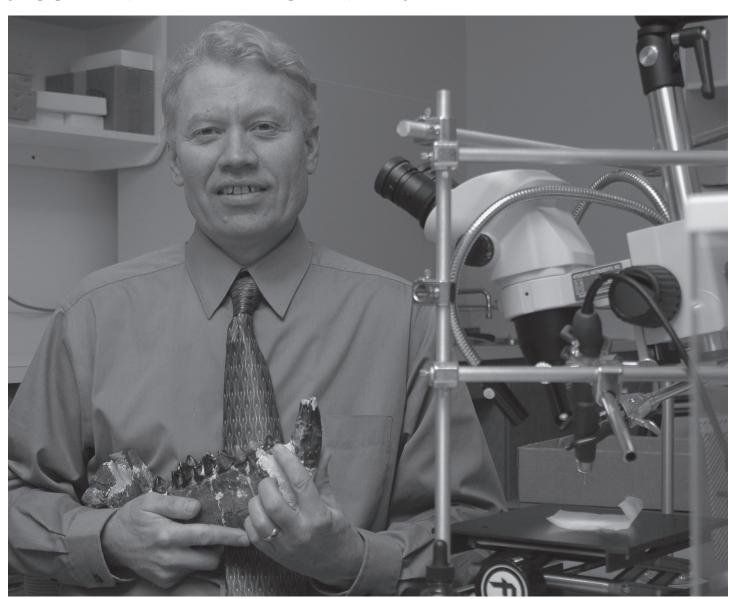
Philip Gingerich, who first recorded the phenomenon of decreasing body size during the Paleocene-Eocene Thermal Maximum in 1989, said the study documentation clearly demonstrates the relationship between temperature and body size. He agrees this may occur as a result of current warming patterns.

"I joke about this all the time — we're going to be walking around 3 feet tall if we keep going the way we're going," said Gingerich, a researcher at the University of Michigan and director of its Museum of Paleontology. "Maybe that's not all bad and if that's the worst it gets, it will be fine. You can either adapt, or you go extinct, or you can move, and there's not a lot of places to move anymore, so I think it's a matter of adaptation and becoming smaller."

Researchers also analyzed correlations with aridity and carbon dioxide levels but found temperature to be the most likely driving factor in body size. Although little is known about how animals arrived in North America at that time, the Paleocene-Eocene Thermal Maximum is a significant event in geologic time in terms of mammalian history, Bloch said.

"The PETM is really important because it marks the beginning for the first appearance of several major groups of mammals, including crowngroup primates (ancestors of modern primates) and the first even- and odd-toed modern ungulates (mammals with hooves)," Bloch said. "This sets the scene for the entire diversity of animals we see on the planet today."

Study co-authors include Doug Boyer of Brooklyn College, Aaron Wood of South Dakota School of Mines and Technology and the Florida Museum, Scott Wing of the Smithsonian Institution National Museum of Natural History, Mary Kraus of the University of Colorado, Francesca McInerney of Northwestern University and John Krigbaum of UF.



Ross Secord holding a fossil jaw of Coryphodon, a large, semi-aquatic creature, similar to a hippopotamus. Secord's group used oxygen isotope values in its teeth to establish a record of temperature change during the PETM.

Photo credit: University of Nebraska-Lincoln

Bob Sinibaldi Receives Prestigious Florida Museum of Natural History's Howard Converse Award

From Tampa Bay Fossil Chronicles Michael Searle, TBFC President

The Converse Award is presented yearly to recognize an individual from the non-professional paleontological ranks who has made outstanding contributions to Florida paleontology. The award is named in honor of Howard Converse, an amateur paleontologist and former preparator at the FLMNH. Award recipients

are selected by the museum paleontology staff. Awardee's names are inscribed on a large permanent plaque which hangs in the collections and research building of the museum.

Dr. Rob-Sinibaldi ert was the 2011 recipient of the Florida Museum of Natural History's Howard Converse Award. He is recognized for his strong support of the FLMNH, his numerous specimen donations,

at the FLMNH. Award recipients Dr. Bob's knowledge and research of Robert Stribatil Robert

Dr. Bob Sinibaldi receives the FLMNH Howard Converse Award at the February TBFC Meeting.

Photo Credit: Michael Searle

and probably most importantly, his authorship of several guides and references for persons with an interest in paleontology.

Dr. Bob, as he may be better known, is a member of the Tampa Bay Fossil Club (TBFC) and has been since the "Leisey Days". He has served as president of TBFC and remains an active member of their Board of Directors. Each year he serves as Auctioneer for the club's annual auction to benefit the Ben Waller Memorial Scholarship. He also contributes

book reviews for the club's monthly newsletter, *The Tampa Bay Fossil Chronicles*. Dr. Bob is also an accomplished educator and physical fitness advocate. He was recently recognized by the American Association for Physical Activity and Recreation as Adapted Physical Educator of the Year, one of the organizations highest honors.

His latest contribution to Florida paleontology and paleontology in general is his comprehensive guide to fossil identification and interpretation, entitled *What Your Fossils Can Tell You*. It is a well-thought out text and an excellent source of information. It combines Dr. Bob's knowledge and research of fossil bones, with

input from both the professional and amateur community. It is an outstandexample ing of what can be accomplished when both the professional and amateur work together and have a deep respect for the science of paleontology. The book continues bridge the between gap amateurs and professionals in Florida.

What Your Fossils Can Tell You

demonstrates to the amateur the importance of collecting in a responsible manner, making proper reports of specimens, and cooperating with the professional community. The book will encourage the amateur to not simply collect for the sake of curiosity, but to truly participate in the science of paleontology.

Dr. Bob is also the author of Fossil Diving: In Florida's Waters or Any Other Waters Containing Prehistoric Treasures and The Handbook of Paleontological Terms

UF scientists name new ancient camels from Panama Canal excavation

UF Press Release by Danielle Torrent dtorrent@flmnh.ufl.edu

The discovery of two new extinct camel species by University of Florida scientists sheds new light on the history of the tropics, a region containing more than half the world's biodiversity and some of its most important ecosystems.

Appearing online in the Journal of Vertebrate Paleontology, the study is the first published description of a fossil mammal discovered as part of an international project in Panama. Funded with a grant from the National Science Foundation, UF paleontologists and geologists are working with the Panama Canal Authority and

widespread throughout North America, but prior to this discovery, they were unknown south of Mexico."

Researchers described two species of ancient camels that are also the oldest mammals found in Panama: Aguascalientia panamaensis and Aguascalientia minuta. Distinguished from each other mainly by their size, the camels belong to an evolutionary branch of the camel family separate from the one that gave rise to modern camels based on different proportions of teeth and elongated jaws.

"Some descriptions say these are 'crocodile-like' camels because they have more elongated snouts than you would expect," said lead author Aldo Rincon, a UF geology doctoral student. "They were probably browsers in the forests of the ancient tropics. We can say that because the crowns are really short."

Rincon discovered the fossils in the Las Cascadas formation, unearthing pieces of a jaw belonging to the same animal over a span of two years, he said.



The left mandible of Floridatragulus nanus, also from the Las Cascadas Formation. Photo credit: Jeff Gage/Florida Museum of Natural History

scientists at the Smithsonian Tropical Research Institute to make the most of a five-year window of excavations during Panama Canal expansions that began in 2009.

The discovery by Florida Museum of Natural History researchers extends the distribution of mammals to their southernmost point in the ancient tropics of Central America. The tropics contain some of the world's most important ecosystems, including rain forests that regulate climate systems and serve as a vital source of food and medicine, yet little is known of their history because lush vegetation prevents paleontological excavations.

"We're discovering this fabulous new diversity of animals that lived in Central America that we didn't even know about before," said co-author Bruce Mac-Fadden, vertebrate paleontology curator at the Florida Museum on the UF campus and co-principal investigator on the NSF grant funding the project. "The family originated about 30 million years ago and they're found

"When I came back to the museum, I started putting everything together and realized, 'Oh wow, I have a nearly complete jaw,' "Rincon said."

The study shows that despite Central America's close proximity to South America, there was no connection between continents because mammals in the area 20 million years ago all had North American origins. The Isthmus of Panama formed about 15 million years later and the fauna crossed to South America 2.5 to 3 million years ago, MacFadden said.

Barry Albright, a professor of earth science at the University of North Florida who studied the early Miocene fauna of the Gulf Coast Plain, said he was surprised by the similarity of the Central American fauna.

"To me, it's slightly unexpected," Albright said. "That's a large latitudinal gradient between the Gulf Coastal Plain and Panama, yet we're seeing the same mammals, so perhaps that tells us something about climate over that interval of time and dispersal patterns of some mammals over that interval of time."

Dinosaurs invade Gainesville with 'Cruisin' the Fossil Freeway' exhibit

UF Press Release by Leeann Bright lbright@flmnh.ufl.edu

Dinosaurs are coming to Gainesville! Take a prehistoric road trip through the Florida Museum of Natural History's newest temporary exhibit, "Cruisin' the Fossil Freeway with Artist Ray Troll and Paleontologist Kirk Johnson," Feb. 4 through Sept. 3.

The exhibit features 30 fossils, including complete skeleton casts of the three-horned *Triceratops* dinosaur, and

MacMahon, Florida Museum assistant director for exhibits. "But it also focuses on how fossils inform us about really important topics such as climate change and evolution. These stories will unfold for the visitor as they enjoy the exhibit's interesting graphics, real fossil specimens and an actively staffed paleontology prep laboratory."

Other fossils in the exhibit, from the Florida Museum, the Utah Field House of Natural History, the Pink Palace Museum in Memphis, Tennessee, and a private collector, include an Ammonite, a large, extinct marine invertebrate; a dinosaur egg from China; a *Diplomystus*, an extinct fish that lived in the western U.S. about 56 to 34 million years ago; a complete bat fossil from the Green River Formation; and petrified wood.



Russell Brown, left, president of the Florida Fossil Hunters Club and member of FPS, shows shark jaws to a family during opening day of Cruisin' the Fossil Freeway. Photo credit: Kristen Grace/Florida Museum of Natural History

Albertosaurus, a carnivore that lived about 70 million years ago. The fossils complement 19 color prints and five large-scale murals by Troll, created for the book "Cruisin' the Fossil Freeway," by Troll and Johnson. Visitors also will be able to observe Florida Museum scientists in a functioning paleontology lab preparing fossils collected during research projects from around the world.

"Most of us think 'dinosaur' when we think of fossils, and this exhibit does have dinosaurs," said Darcie Many of the fossils in the exhibit prep lab are from the Thomas Farm site in Gilchrist County and a National Science Foundation-funded research project in Panama.

Florida Museum exhibit project manager Kurt Auffenberg said he is hopeful the prep lab will give visitors a glimpse of how paleontologists prepare specimens and conduct research.

"Visitors will have the opportunity to see the process of science through discovery," Auffenberg said. "They can see

researchers sifting fine sediment or picking through a big slab of rock in search of a bone or tooth from an animal that lived millions of years ago."

At times, visitors will be able to interact directly with the scientists and ask questions about fossils and the work performed in the lab. Exhibit volunteers will also be available to answer questions while scientists are working.

Admission to "Cruisin' the Fossil Freeway" is \$5 for adults, \$4.50 for Florida residents, seniors and college students and \$4 for ages 3-17. Value admission tickets to the exhibit and Butterfly Rainforest are also available, \$13 for adults, \$12 for Florida residents, seniors and college students and \$9 for ages 3-17.

"Cruisin' the Fossil Freeway" was organized by the Burke Museum at the University of Washington. The exhibit is presented locally by the Toomey Foundation for the Natural Sciences, Inc. and the Florida Museum Associates Board.



Mascots Albert and Alberta made a guest appearance for opening day of the museum's new exhibit, 'Cruisin' the Fossil Freeway. Photo credit: Kristen Grace/Florida Museum of Natural History

FPS Product Sales	
Prices are for current FPS members only	
Shipping and Handling Extra	
Hulbert, Fossil Vertebrates of Florida	\$31.00
Olsson & Harbison, Pliocene Mollusca	\$15.00
Florida Fossil Invertebrates	
Part 1, Eocene Echinoids	\$7.00
Part 2, Oligocene and Miocene Echinoids	\$7.00
Part 3, Pliocene and Pleistocene Echinoids	\$7.00
Part 4, Pliocene and Pleistocene	
Decapod Crustaceans	\$7.00
Part 5, Eocene, Oligocene, and	
Miocene Decapod Crustaceans	\$7.00
Part 6, Larger Foraminifera (Introduction)	\$7.00
Part 7, Larger Foraminifera (Common Taxa)	\$7.00
Part 8, Brachiopods	\$7.00
Part 9, Mollusca (Shoal River Formation)	\$12.00
Part 10, Mollusca (Anastasia Formation)	\$10.00
Part 11, Eocene and Oligocene Corals	TBA
Part 12, Mollusca (Fort Thompson Formation)	\$10.00
Part 13, Mollusca (Bermont Formation)	\$10.00
Fossil Species of Florida	
Number 1, Mammut americanum	\$1.00
Number 2, Tapirus veroensis	\$1.00
T-shirt (Small - XL)	\$14.00
Coffee Mug	\$4.00
Sales Tax (Florida residents) add	6.25%
To purchase the above items, please vist our websit	e at:

http://floridapaleosociety.com/publications

or contact: fps@flmnh.ufl.edu

or contact:

Treaurer

Florida Museum of Natural History

Box 117800

University of Florida

Gainesville, Florida 32611-7800

FLORIDA PALEONTOLOGICAL SOCIETY, INC. APPLICATION FOR MEMBERSHIP

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ddress
ity State Zip Code
mail addressPhone Number
TYPE OF MEMBERSHIP
INDIVIDUAL ACTIVE (\$20.00) 2. INSTITUTIONAL (\$20.00)
COUPLES (\$25.00) 4. FAMILY (3 or more \$30.00)
LIFE (\$500.00) 6. ASSOCIATE (under 18 \$10.00)
OTE!! MEMBERSHIPS ARE FOR A CALENDAR YEAR AND ARE DUE NO LATER THAN JANUARY 1 EACH YEAR! LEASE RENEW ON TIME! BIOGRAPHICAL FACT SHEET
NUMBER OF YEARS OF INTEREST IN PALEONTOLOGY
WHICH BEST DESCRIBES YOUR STATUS: COLLECTOR OCCASIONAL DEALER FULL TIME DEALER PROFES- ONAL POSITION JUST STARTING
PRIMARY AREAS OF INTEREST:
VERTEBRATE INVERTEBRATE BOTANY MICRO LEISTOCENE LIOCENE LIOCENE LIGOCENE ARLIER LIGOLOGIC LIGOLO
LIST ANY PREFERRED TYPES (Echinoids, Crabs, Horses, Sloths, Plants, etc.).
LIST ANY PUBLISHED WORKS ON PALEONTOLOGICAL SUBJECTS.
FOUNDED 1918
DO YOU BUY FIND FOSSILS?
LIST ANY SKILLS OR ABILITIES THAT MAY BE OF USE TO THE SOCIETY'S PROJECTS (RESTORATION, PERPARATION, COMUTER USE, GRAPHICS SKILLS, SPEAKING, PHOTOGRAPHY, PUBLIC RELATIONS, WRITING, FUND RAISING, ETC.).
LIST ANY UNUSUAL SPECIMENS FOUND, CIRCUMSTANCES UNDER WHICH THEY WERE LOCATED AND THEIR DISPOSITION

PLEASE USE AN ADDITIONAL SHEET IF REQUIRED. THANK YOU!

Payments, contributions, or gifts to the Florida Paleontological Society are not deductible as charitable contributions for federal income tax purposes. Dues payments may be deductible by members as ordinary or necessary business expenses. We recommend that you consult with your tax advisor.