



FLORIDA PALEONTOLOGICAL SOCIETY NEWSLETTER

VOLUME 24 NO. 1

SPRING 2007

Florida Paleontological Society, Inc. Fall Meeting – December 8-10, 2006 Melbourne, Florida

Once again we pulled off another successful FPS meeting, this time in Melbourne, FL at the Brevard Zoo. The weekend began Friday night as out of town members met at the La Quinta Inn lobby to discuss the weekend plans and catch up on news since the last meeting.

Saturday began early as we gathered to caravan down to the Fort Pierce area to attempt the quarry that

bore and there were few *Mercenaria* clams found in available spoil piles containing the elusive calcite crystals. We waited until the workers began to clear off and then Harley Means and I entered the water-filled trench and began scooping out the calcite-filled clams and passing them to eager hands above. Time constraints kept the collecting to a minimum but there were a few buckets full of specimens for the group to select from.

We arrived back in Melbourne with enough time to shower and rest before the banquet and talks at the Brevard Zoo. By the time we were gathering, it was dark



Some attendees of the Fall meeting field trip to a quarry near Melbourne.

locked us out (due to rain) several years earlier. This time there were no problems and group soon scattered around the site collecting fish, turtles, and the occasional land mammal bones, molluscs, and small clusters of calcite crystals. Highlights of the quarry finds were the very large *Encope* sand dollars and bird bones.

The group re-gathered around noon to move to Ft. Drum to collect at a pit across the street from the Ruck's Pit. Unfortunately, the quarry was running full

and we didn't get a chance to see much of the zoo but we had more important business to attend to; including food, talks, and the auction. Everyone must have been hungry as the BBQ buffet did not go as far as advertised. However, everyone seemed to be satiated even if the coleslaw ran short. The first talk entitled Calcite and Crystal Formation in Florida was by Harley Means from the Florida Geological Survey in Tallahassee. The talk was well illustrated and covered the general geology of

**FLORIDA PALEONTOLOGICAL SOCIETY
OFFICERS AND BOARD**

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Barbara Toomey, Gainesville, 2007	Greta Polites, Athens, GA, 2009
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COMMITTEES AND APPOINTMENTS

Book Committee:	R. Hulbert
Nominations:	M. Cole, R. Portell
Finance:	G. Hecht, R. Portell
Membership:	G. Hecht
Honorary Members and Awards:	R. Portell, B. Toomey
Historical:	G. Hecht
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Resident Agent:	B. MacFadden

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Joan Herrera
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Barbara Toomey

INFORMATION, MEMBERSHIP, AND PUBLICATIONS

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Florida (limestones and sands) and how calcium carbonate is dissolved from the original limestone matrix and re-deposited as cave formations, and under special conditions forms beautiful and varied crystal shapes. The second talk was by Dick Franz from the Florida Museum of Natural History in Gainesville and was entitled Fossil



Ted and Nita Akin searching for their next fossil treasure. Nita tragically died this year in a diving accident while hunting for river fossils (an activity she loved).

Tortoises of the White River Group: A lot More Complex than First Thought. The talk dealt with the importance of local stratigraphy in defining relationships between species of tortoises.

During the week, a planned Space Shuttle launch had been delayed from Thursday to Friday and then tentatively scheduled for Saturday, weather permitting. The clouds were heavy for most of the day but began clearing at dusk. Zoo staff kept in contact with the outside world and gave us regular launch status updates. As Harley's talk wound down and with 5 minutes to go we trooped out to the parking lot hoping we wouldn't miss the launch by looking in the wrong direction. Right on time (and with several people on cell phones to time the countdown) the sky lit up to the north like it was daytime.

It seemed to take forever for the shuttle to clear to the trees but there was no mistaking the brilliant ball of light, trailing smoke and flame, as it rose above the horizon. We were far enough away that we could not make out the actual shuttle but there was no doubt when the booster rockets shut down and fell away from the shuttle and we could see the red hot cylinders as they tumbled towards the ocean. After watching as long as we could, we returned to the class room for some exciting auction action led by Roger Portell. Items purchased varied from books and casts, to the odd toy or poster, and we nearly met our goal of \$500 for the Morgan Award fund.

George Hecht

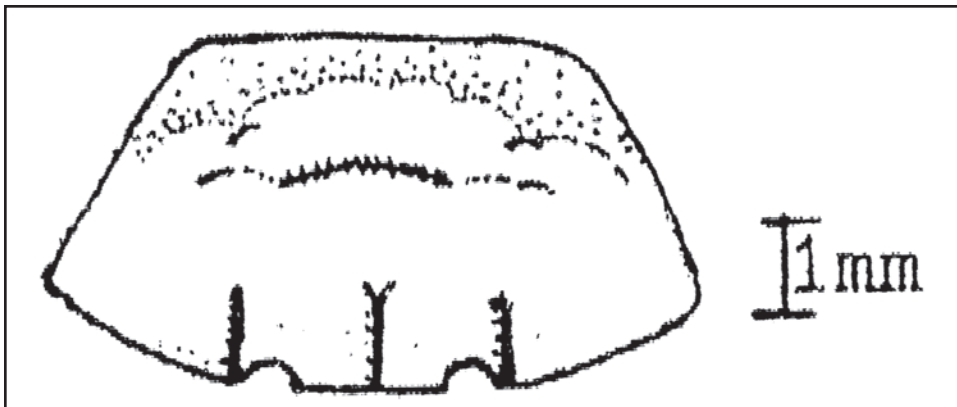
Crab by David W. Grabda

It amazes me that little surprises can still be found in the Lee Creek Mine reject material after years of searching thru it. Anyone who has been hunting fossils for any length of time has heard of the PCS Phosphate Mine, also known as Lee Creek Mine, located near Aurora,

North Carolina where the beautiful tan to steel gray *Carcharocles megalodon* (Great White Shark) teeth can be found. Having only a limited time in the

mine many of us extend our hunting pleasure by picking up a bucket of what is called "reject material", that came out of the mine, from piles located in front of the excellent Aurora Fossil Museum. Looking thru the "treated" material, washed and dried, for the rarer small shark and ray teeth I spotted a slightly inflated subrectangular shape with little eyes, or sockets, staring up at me from a tiny crab carapace. The cara-

pace was small but looked like pretty much the whole upper part was there. The outer margins are fairly straight, 7 x 4 millimeters in shape. The top of carapace is smooth, almost shiny. The eyes divide the front into thirds. Some tiny squiggly lines appeared on top. I decided a drawing would sure help in my search to identify the crab. Could the crab carapace be identified thru my meager library? I first looked thru the North Carolina Fossil Club Field Guide Manual but no luck there. I remembered the crustacean publications of the Florida Paleontological Society. Plate nine from Part 4 of Florida Fossil Invertebrates narrowed the search to mud, pea, and ghost crabs that have the same general shape. Maybe a manual on recent crabs could shine some light on the subject! The Audubon Nature Guide, Atlantic and Gulf Coasts had a possibility on page 419, figure 149. It shows a commensal crab, *Pinnotheres* sp., about twice



the size of my specimen with similar eye sockets and squiggly lines on top. This tiny crab lives on the body

or in a cavity of a host animal like mollusks or sea stars and feeds on that animals meal, considered parasitic. The reject material is quite a mixture but I'm assuming my specimen is from a Pliocene or Pleistocene formation. More study is needed in this area. I know there are lots of fossil crab collectors out there so here is another crab to look for in reject material during the winter months. Good hunting out there!

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.

Florida Paleontological Society, Inc. (FPS) Minutes of Board Meeting held in Gainesville, Florida May 19, 2007 - 4:00 PM

The board meeting was called to order by president, Melissa Cole. Board members present were: Marge Fantozzi, Roger Portell, George Hecht, Barbara Toomey, Jim Toomey, Gordon Hubbell, Greta Polites, Terry Lott, and Marcia Wright. Also present was Joan Herrera who maintains the website and organizes the newsletter.

The opening business concerned the composition of the board and the length of the members' terms. The updated results are attached to the minutes.

There was no formal treasurer's report, but a brief outline was presented by George Hecht. The audit that was planned will probably be done this fall by a society member.

Discussion followed about how to fairly allot opportunities for members to participate in small-group (possible 10 – 12 members) collection trips which will be arranged by Roger Portell. Members will be selected in a rotating lottery. Inclusion in the lottery list will depend on whether or not the member is an active participant in society activities. Such activities include: attendance at meetings, helping to arrange or host meetings, donating items or purchasing items at society auctions, writing articles for the newsletter, or representing and promoting FPS at fossil fairs and other such gatherings.

Those selected must be at least 18 yrs. old (unless otherwise specified) and must sign all liability waivers necessary. If a member has been selected for a trip and has accepted the opportunity, it is assumed he/she will attend. If the member does not attend and does not give reasonable notice of his inability to attend (barring catastrophic occurrences) so that another member can be included in the trip, that person forfeits future eligibility for these trips.

Roger Portell reported that the society now has additional equipment to improve field trips. There is a good first aid kit, air horn, hard hats, and orange safety vests. It

ANNUAL DUES for the FPS are \$5.00 for Associate Membership (persons under age 18) and \$15.00 for Full Membership (persons over age 18) and Institutional Subscriptions. Couples may join for \$20.00, and Family Memberships (3 or more persons) are available for \$25.00. 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.

was also suggested that a personal equipment list (i.e., steel-toed boots, rubber boots, 4-wheel-drive vehicles, rock hammers, chisels, wrapping material, etc.) be included in field trip information, so that members will know in advance what gear to bring with them.

In order to get board meeting minutes approved, they will be sent to all board members by email for approval, It is requested that they be returned to the secretary (with amendments and/or approval) within one week.

New business items discussed were committees, fall meeting dates, the MC Thomas book, and a charitable gift in memory of deceased member, Nita Aiken.

Jim Toomey moved and Melissa Cole seconded a motion to eliminate the by-laws committee. The motion passed with the understanding that a new committee could be formed if needed.

The Honorary Members and Awards Committee is now made up of Roger Portell and Barbara Toomey. There were no new suggestions for honorary membership at this time.

Melissa Cole appointed George Hecht as the Historical Committee.

The nomination committee now consists of Roger Portell and Melissa Cole.

Resident Agent is Bruce MacFadden.

Fall Meeting dates were discussed. Tentative dates are Nov. 10-11, 17-18, and Dec. 8-9. Venues discussed were Bradenton/Sarasota, Miami quarries, or Aurora, NC. A decision will be made later after checking the museum calendar and venue possibilities.

There will be two newsletters per year. Projected newsletter dates are a July 1, 2007 mailing with a deadline for articles to be June 1, 2007. The following newsletter would be mailed ca. February 1, 2008 with a content deadline of January 1, 2008.

There was an inquiry as to whether or not to reprint the MC Thomas book, Fossil Vertebrates. This was tabled for further discussion at the next meeting.

Roger Portell moved and the motion was seconded by acclamation that the proceeds from this evening's FPS auction be donated to the MS Society in memory of deceased member, Nita Aiken. The motion passed in a unanimous vote.

There being no further business, the meeting was adjourned by president, Melissa Cole.

Respectfully submitted,
Marcia Wright
Secretary

President's Address

Fellow Fossil Lovers,

I am please and delighted to take on the position of FPS President. Roger Portell has done a suburb job of running the club and I hope to follow in his foot steps with his guidance. As president, I would like to help foster a relationship between amateur and professional fossil hunters. I believe that each group can learn from the other and share a mutual love of fossils.

We had a small group attend the last spring meeting. Those who attended were treated to a behind the scenes tour of the new shark exhibit at the Florida Museum of Natural History and a very nice lecture entitled Sinister Shells by Jon Hendricks from the University of Kansas. Members also met the Museum's new preparator Jane Mason. We also had a very nice field trip to a mine in north Florida.

We are in the process of planning our venue for the fall meeting. We have three possible dates two in November and one in early December. Information on the fall meeting will be forthcoming later in the summer. I hope everyone will be able to make a trip to the Florida museum of Natural History this summer to see the new shark exhibit. It promises to be a very cool exhibit.

Please be aware that on all FPS field trips that safety rules must be strictly followed. These may include hard hats, vests, and steel-toed shoes when we are fossiling in mines. It is for your safety and it will satisfy the mine's safety standards. Please keep in mind that we are invited guests in these mines and we need to adhere to their rules in order to be invited back. It is a great opportunity that other clubs do not enjoy. We want you to have a good time, but we want to make sure that everyone stays safe at the same time.

On a sad note, I need to announce the death of one of our long-time members of FPS. Juanita "Nita" Akin lost her life in a diving accident while hunting fossils in the Santa Fe River on Mother's Day. She will be sorely missed. Our prayers and condolences go out to her husband Ted and family.

As your president, I wish to be your voice. If you have any questions or suggestions, please do not hesitate to contact me at this e-mail address leaf123456@aol.com.

Hope to see you next fall.

Melissa Cole
FPS President

News from the Florida Museum of Natural History's Vertebrate Paleontology Division

The past year has been a significant one for our program. We had a major personnel change, as our fossil preparator Russ McCarty retired in December. A national search for a replacement was undertaken, and, our new preparator Jane Mason began work in May. Both VP curators, Bruce MacFadden and Jonathan Bloch, have been tremendously successful in obtaining major grants and publishing articles in leading scientific journals. Former curator Dave Webb's book detailing his many years of collecting in the Aucilla River and research on the late Pleistocene interactions of megafauna and humans was published in late 2006. Dozens of outside researchers, many from outside the United States, visited our collection and studied our specimens. Important collections of fossils were donated by Steve and Suzanne Hutchens, Clifford Jeremiah, Jim Ranson, Andreas Kerner, and David Thulman, while many others made smaller contributions. And hundreds of volunteers assisted us in excavating one of the most important vertebrate fossil sites ever found in Florida, Haile 7G.

Haile 7G is a late Pliocene (Blancan) site located a few miles west of Gainesville that was found in 2005 in an active limestone quarry. It represents an ancient water-filled sinkhole. Two million years ago, the carcasses of numerous animals, especially frogs, turtles, alligators, tapirs, sloths, and armadillos sank down into the sinkhole and were buried in mud. To date we have recovered portions of about 400 skeletons of these and other animals, more associated skeletons than any other fossil site in Florida. Among the more significant finds of the past year are the first Pliocene skeleton of a beaver from the eastern U.S., the largest population sample of giant armadillos (pampatheres) ever found in North America (23 individuals and counting), and over 27 complete shells of a new species of painted turtle. We are currently excavating the first relatively complete skeleton of a proboscidean found at the site, probably the gomphothere *Cuvieronius*, although we will not know for sure until either the skull or lower jaw is recovered. In addition to providing magnificent samples for research, the excavation has also been an important tool for public outreach and education, as much of the

actual digging is done by volunteers. Our next major field season begins in October, 2007. Those interested in participating should investigate our web site www.flmnh.ufl.edu/vertpaleo/2007_dig.htm. Please note that participants must be at least 18 years old.

During the Spring 2006 Semester, Curator Bruce MacFadden taught a class entitled "Broader Impacts of Natural Science on Society." The class, mostly paleontology graduate students, had the opportunity to conduct surveys of museum visitors to determine their interest in a shark exhibit that we are developing. This exhibit, "Megalodon: Largest shark that ever lived," opened on 16 June 2007 and is on display until December. This exhibit features many specimens and models provided by Gordon Hubbell of Gainesville and Cliff Jeremiah of Jacksonville. The data gathered by the students were used for a grant project that was recently funded by the National Science Foundation. During the Spring 2007, Bruce team-taught a graduate course on vertebrate evolution.

In September 2006 along with museum director Doug Jones, Bruce conducted ongoing field work in western Nebraska to understand the ancient ecology and evolution of extinct vertebrates from the badlands. In November Bruce presented a talk on Nebraska fossils to the Tampa Bay Fossil Club. Bruce was involved in a recent study, published in the journal *Nature*, in which the chemistry of fossil mammal teeth from the Nebraska badlands records a 15 degree drop in average annual temperature 33.5 million years ago. This is one of the largest temperature changes recorded over the past 65 million years. Bruce continues work on the chemistry of badlands fossils.

Along with colleagues Joann Labs-Hochstein and Richard Hulbert from the FLMNH and Jon Baskin from Texas A&M University—Kingsville, Bruce completed a study of the chemistry of the terror bird *Titanis* bones to determine its age of dispersal into North America (5 million years ago) and extinction during the late Pliocene (~1.8 million years ago). This study was published in the journal *Geology*. Bruce recently received funding from the National Science Foundation to lead expeditions to collect fossils along the Panama Canal as renewed excavations are undertaken to expand the canal, thus allowing it to meet increased demands for shipping (see photo). Bruce published a paper describing Miocene mammals from Panama in the *Journal of Vertebrate Paleontology*.

Assistant Curator Jonathan Bloch taught graduate courses in Fall 2005 (“The Fossil Record and Evolution of Non-Mammalian Vertebrates”) and Spring 2006 (“The Fossil Record and the Evolution of Mammals”) in the Departments of Zoology and Geological Sciences. Jonathan is currently teaching a Florida Vertebrate Paleontology field course that provides geology and zoology students with the opportunity to help with fieldwork at Haile 7G. Jonathan was also made an associate editor for the *Journal of Human Evolution* in 2006, a job whose responsibilities include handling the review process for manuscripts on primate evolution.

In July of 2005 and 2006, together with paleobotanist Dr. Scott Wing from the Smithsonian, Jonathan directed continuing field

expeditions to the Bighorn Basin, Wyoming to collect fossil vertebrates and plants of Paleocene and Eocene age. The crews were composed of undergraduate and graduate students from a variety of institutions, including the University of Florida, Yale University, Stony Brook University, and Mt. Holyoke College. These trips were extremely successful and resulted in the recovery of thousands of fossils. Jonathan was a co-author on a recently published paper presenting results of some of this work in the journal *Science*. This study, which was featured on the cover of the journal, documented a dramatic shift in plant and animal ranges in response to rapid, large-scale, global warming about 56 million years ago. Jonathan recently received funding from the National Science Foundation to continue the project, and returned to the Bighorn Basin this summer to collect fossil vertebrates that will be used to evaluate whether the forest canopy changed through this interval of global

warming using stable isotope geochemistry of mammal teeth.

In August of 2005 and 2006, together with graduate student Doug Boyer from Stony Brook University and Dr. Mary Silcox from the University of Winnipeg, Jonathan also directed ongoing field expeditions to the Crazy Mountains Basin, Montana to collect Paleocene mammals. This project, also funded

by the National Science Foundation, has resulted in the discovery of many new and exciting mammals in the 10-million year period following the extinction of the dinosaurs. Since 2005, Jonathan has published results of his research on Paleocene mammals in the journals *Nature*, *Journal of Human*



Prospecting for Miocene fossils on the Panama Canal

Evolution, and *Naturwissenschaften*. Lately, Jonathan has been particularly excited about new early primate finds from Wyoming and Montana. Results from this work were recently published as the cover article in the journal *Proceedings of the National Academy of Sciences* and Jonathan just received funding from the National Science Foundation “Tree of Life” program to continue his work on primitive primate skeletons and to help with a multidisciplinary effort to reconstruct the evolutionary relationships of mammals using DNA and fossils. Jonathan presented talks about his Wyoming and Montana research at the Tampa Bay Fossil Club, the Fossil Club of Lee County, the Denver Museum of Science and Nature, and several international professional meetings.

Jonathan is also doing fieldwork in northern Colombia, with two trips in the past year. Jonathan, his colleagues at the Smithsonian and in Colombia, and two University of Florida graduate students have

discovered many new Paleocene vertebrate fossils (about 60 million years ago) from the mine. These discoveries include some very interesting crocodiles and some of the largest turtles and snakes known in the world (see photo)! Jonathan returned to northern Colombia in May to visit a new locality where fossil mammals have been found of the same age, and made some interesting discoveries.

VP collections manager Richard Hulbert is in charge of the day-to-day operations at the Haile 7G fossil dig.

In addition to the *Titanis* dating project mentioned above, Richard also published with Frank Whitmore of the United States Geological Survey (retired) a study of late Miocene mammals from a site in southern Alabama, one of the few late Tertiary sites located between Florida and the Great Plains. In this paper they described a new species of the “slingshot-

horned antelope” (more properly protoceratid) *Synthetoceras*. This monograph was published in the Florida Museum’s Bulletin series. Richard traveled to Tennessee in the summer of 2006 where he studied the large samples of the dwarf tapir *Tapirus polkensis* from the late Miocene Gray Site in the collections at East Tennessee State University (ETSU) and the University of Tennessee, Knoxville. This work is being done in collaboration with ETSU paleontologist Steven Wallace. Other collaborative projects are in the works with ETSU paleontologist Blaine Schubert on Florida fossil bears, including the first record in the state of the giant short faced bear *Arctodus simus*, that was collected in the Rainbow River and donated



Jonathan Bloch along side a gigantic Paleocene turtle his team found and collected in Colombia.

by Michael and Seina Searle of Tampa. Richard also remains involved in work on the vertebrate fossils from the phosphate mines of Polk and adjacent counties. A major review of the early Pliocene fauna from this region will be published later this year by the Los Angeles County Museum of Natural History. Richard has also taken over management of the Fossil Collecting Permits program that was previously handled by Russ McCarty.

Larisa Grawe DeSantis, a 3rd year Ph.D. student in the Department of Zoology has been working on reconstructing the paleoecology of past environments over the last 7 million years. She studies how changing climates have influenced the diets of mammalian herbivores by examining the chemical signatures in fossil tooth enamel. With a particular fondness for fossil tapirs, she continues to collaborate with researchers in Tennessee on their highly fossiliferous tapir site (the Gray Fossil Site) in addition to Florida’s Haile 7G fossil site. She has presented the results of her work both locally and internationally, and has submitted several manuscripts to journals ranging from modern ecology to paleontology. When not working on her research, in 2006 she led a paleo-summer camp offered through the FLMNH. During this camp the fifth and sixth graders enjoyed prospecting for fossils at Thomas Farm, in local creeks, and on the beaches south of Jacksonville. Art Poyer, Richard Hulbert, and Alex Hastings also volunteered their time by assisting with these excavations, leading collections tours, and speaking on subjects such as the evolution of crocodiles.

Alex Hastings is a graduate student in the Department of Geological Sciences. His dissertation research is on crocodylian fossils from a locality in northeastern Colombia, which is Paleocene in age (~ 60 million years ago). The site has produced numerous crocodylian fossils, including three skulls, which represent the first reliably dated Paleocene-aged fossil crocodylians in all of paleotropical South America. At least two of these specimens represent new species, one of which being an odd, short-snouted form. Alex conducted fieldwork at the site in January, 2007, funded in part by the R. Jerry Britt, Jr. Paleobiology Award. During this fieldwork, he discovered an additional skull of the new short-snouted crocodile. He returned for several weeks of field work in May and June. Alex is also conducting research on a new skeleton of the fossil porcupine *Erethizon poyeri* from the Haile 7G Quarry in Newberry, Florida. From comparison to modern North

American and South American porcupines, he was able to conclude that *E. poyeri* likely had a prehensile tail, a trait found only in the South American porcupines which live in dense canopy forests. This suggests *E. poyeri* may represent a transitional form between the South American and North American porcupine groups. Furthermore, this indicates that the canopy of the forest environment of the Haile locality likely was denser than that of modern Florida forests. He presented this research at the 66th Annual Meeting of the Society of Vertebrate Paleontology in 2006, funded in part by awards from the Southwest Florida Fossil Club and Fossil Club of Lee County. In addition, Alex has presented his research to the Florida Museum of Natural History, the Southwest Florida Fossil Club, the Fossil Club of Lee County, and he has also presented

for the FLMNH's summer Paleocamp program for grades 1-6. Alex also conducted fieldwork in Wyoming and Montana during the summer of 2006, collecting vertebrate fossils from the Paleocene-Eocene transition (~ 55 million years ago).

Jason Bourque is a Master's candidate in Museum Studies with a concentration in paleontology and zoology. His current research interests involve fossil and modern freshwater turtles of Florida and the Americas, with a primary interest in members of the Chelydridae (snapping turtles), Kinosternidae (mud and musk turtles), and their close relatives. His thesis

research entails the description of an extinct painted turtle species (*Chrysemys* sp. nov.) from the late Pliocene of Florida, complete specimens of which have been unearthed by volunteers and staff at the Haile 7G locality. Overall, the new species is very similar to modern painted turtles, but unique in some aspects of shell

and cranial morphology. Funding for this study has been provided in part by the Florida Paleontological Society via the Gary S. Morgan Award Student Research Award. Other projects currently underway include an osteological overview of the mud and musk turtles and comprehensive study of their fossil record, as well as a history of snapping turtles in Florida.

Dana Ehret has just returned to the Vertebrate Paleontology Division in 2007 to work on his Ph.D. with Bruce MacFadden. Dana received his Master's degree working with Bruce on incremental growth in fossil and modern gopher tortoises from Florida and the Badlands of Nebraska. For his Ph.D. Dana will be working on incremental growth and the evolution of body size in fossil lamnid sharks (the great white and mako sharks and their ancestors) including



The Megalodon exhibit

Carcharocles megalodon. This research will be taking him to Peru this summer for fieldwork.

Looking forward, the second half of 2007 will be an exciting time for the VP division. Our last major excavation at Haile 7G should produce many more skeletons. Our new preparator will have her lab remodeled and operating including a new acid-prep set-up. Several new graduate students will start in the Fall, as well as a new post-doc to work with Jonathan. Bruce's Panama research will expand.

From the Fall Meeting fieldtrip



Carol Peterson with a nearly perfect large Carolinapecten that she collected at the first quarry visited. Husband Bernie standing in the background.

FPS Product Sales

Prices are for current FPS members only

Shipping and Handling Extra

Vinac 15 (price per pound)	\$7.00
MC Thomas, Beach and Bank Collecting	\$5.00
H Converse, Paleo Preparation Techniques	\$10.00
Hulbert, Fossil Vertebrates of Florida	\$31.00
Sinibaldi, Fossil Diving	\$10.00
Sinibaldi, Paleo Dictionary	\$6.00

Florida Fossil Invertebrates

Part 1, Eocene Echinoids	\$5.00
Part 2, Oligocene and Miocene Echinoids	\$5.00
Part 3, Pliocene and Pleistocene Echinoids	\$5.00
Part 4, Pliocene and Pleistocene Decapod Crustaceans	\$5.00
Part 5, Eocene, Oligocene, and Miocene Decapod Crustaceans	\$5.00
Part 6, Larger Foraminifera (Introduction)	\$5.00
Part 7, Larger Foraminifera (Common Taxa)	\$5.00
Part 8, Brachiopods	\$5.00
Part 9, Mollusca (Shoal River Formation)	\$7.00
Part 10, Eocene and Oligocene Corals	TBA

Fossil Species of Florida

Number 1, <i>Mammut americanum</i>	\$4.00
Number 2, <i>Tapirus veroensis</i>	\$4.00

T-shirt (sm - 2xl) \$10.00

Coffee Mug \$4.00

Sales Tax (Florida residents) add 6.25%

To purchase the above items, please contact:

fps@flmnh.ufl.edu

or

George Hecht, Treasurer
Florida Museum of Natural History
Box 117800
University of Florida
Gainesville, Florida 32611-7800

The Gary S. Morgan Student Research Award Winner announced....

Jason Bourque is a graduate student at the University of Florida as a Master's Candidate in Museum Studies, with a concentration in paleontology. He was the 2006 recipient of the Gary S. Morgan Student Research Award (2006-2007). Financial assistance from this award will go towards his research which entails the description of an undescribed species of painted turtle (*Chrysemys*) from the late Pliocene of Florida.

AN EXTINCT PAINTED TURTLE (TESTUDINES, EMYDIDAE) FROM THE LATE PLIOCENE (BLANCAN) OF FLORIDA

Aspects of shell and cranial anatomy are being measured for the fossil form and compared with the four extant recognized subspecies. While the Florida Museum of Natural History possesses a fairly robust sample of skeletal material for the modern eastern, midland, and western subspecies, it is lacking in the southern form (i.e. one of the forms likely to be most similar to the fossil species). It is therefore imperative to visit other museum collections in order to complete this research. One such collection would be that at Louisiana State University (LSU), which possess an adequate sample of southern painted turtle skeletons

This work is important because only two extinct species of painted turtle have ever been described, one of which based on a single poorly preserved specimen (*Chrysemys timida*, Hay 1905). Therefore, the evolution of painted turtles is open for interpretation, and theories on the diversification and dispersal of the

modern subspecies have been proposed by previous authors. The new species from Florida possesses primitive features for the genus. Further study might aid in determining whether or not current proposed biogeographical theories are justified, and could help clarify the affinities of the *Chrysemys* complex with the closely related *Trachemys* and *Pseudemys*. This research is also important in that modern painted turtles are a notoriously cold-tolerant species with a geographic range that extends across most of the United States and into Canada, but barely reaches the panhandle of Florida. The fossil taxon not only lived at least down to the St. Petersburg area, but was also locally abundant at at least one fossil locality. Paleofaunal evidence suggests that the new *Chrysemys* was warm-climate adapted, co-existing with large xenarthrans, tapirs, and giant tortoises in a sub-tropical/tropical environment. This project should be completed by December of 2007.

Jason is also currently investigating other fossil turtles from Florida, including the mud and musk turtles (Kinosternidae) and their history in the state up to the present. Work on the subject thus far has led to the discovery of undescribed fossil kinosternid species. This research could prove to be very insightful to our limited knowledge of kinosternid evolution, as no extinct taxa within the modern genera *Kinosternon* (mud turtles) and *Sternotherus* (musk turtles) have ever been described, despite the fact that such extinct forms have existed in Florida. This project will likely be part of my doctoral research, but my trip to LSU will serve a dual purpose as an opportunity to measure extant kinosternids from that collection along with the *Chrysemys* specimens mentioned above.

FLORIDA PALEONTOLOGICAL SOCIETY, INC.

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