



FLORIDA PALEONTOLOGICAL SOCIETY NEWSLETTER

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FALL 2004

Paleofest 2004

Early in the morning on Saturday, May 22nd, Marge Fantozzi and I left the Orlando area and drove to Gainesville for the FPS Paleofest weekend and the opening of the Hall of Florida Fossils at the FLMNH. We arrived in good time and noticed the set up of the children's activities outside. There was a pit full of fossils and a huge paper mache shark for the children to paint. By the end of the day the shark, which had been dubbed "Bruce" was indeed the most colorful thing for miles around.

After the opening ceremonies we finally got to enter the new Hall of Florida Fossils. All I can say is, "Wow!". It was absolutely wonderful. There is so much to see and take in that I've already returned two times to see it and look forward to going again. The set up is such that you can see both the vertebrate and invertebrate fossil species that existed during each epoch of Florida's history. The lighting allows for clear views and labels and explanations are clear and frequent. I think everyone can be proud to have this exhibit in Florida. "Well done" to all who put so much time and effort and so many resources into this world-class exhibition of Florida's fossils.

The Fossil Hall tour was followed by four lectures covering such topics as: crocodiles (and why they are better than dinosaurs), Florida bats, fossil sharks, and Florida

fossil forests. These were very interesting and were given by Chris Brochu, Gary Morgan, Gordon Hubbell, and Steve Manchester, respectively. In the entry hall there were lots of exhibits from Florida fossil clubs, FLMNH Invertebrate Paleontology Division, Vertebrate Paleontology Prep Lab, the Florida Geologic Survey, skeletal reconstruction by Steve and Sue Hutchens, book signings, etc. Also, it was here that "Stump the Paleontologist" took place. This was a most popular item. Gordon Hubbell, Richard Hulbert, Gary Morgan, and Roger Portell examined and identified fossils brought by attendees. This activity was conducted on a raised platform and via a microphone. Therefore, everyone could see the fossils, hear the identification, and learn about each item. There were humorous interjections that made it all great fun.



Invertebrate Paleontology Technician Sean Roberts demonstrating how silicone rubber peels of Eocene mollusk molds are made.

speaker – the ever-popular, crowd-pleasing Jack Horner from the Museum of the Rockies, Montana. He revealed the audience with "Dinosaurs and the less interesting vertebrates that came after them". This, of course, included good-natured jibes at us "poor" Floridians, who lack dinosaur fossils in the state.

Sunday, the FPS board met to conduct business and at the meetings conclusion, Marge and I returned to Orlando. It was a great Paleofest 2004, and I thank all who made it possible.

Marcia Wright (FPS Secretary)

The day's activities culminated in an evening

**FLORIDA PALEONTOLOGICAL SOCIETY
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INFORMATION, MEMBERSHIP, AND PUBLICATIONS

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Treasurer's Report

The Florida Paleontological Society continues to operate in the black with books, two publication series, and Butvar sales more than compensating for the operating costs of the Society. Account balances as of the end of August are as follows:

Bank of America Checking	\$14,191.06
Bank of America Savings	\$11,378.79
Merrill Lynch Savings	\$11,597.95

Major expenses in the 2004-2005 fiscal year may include reprinting the M.C. Thomas book Fossil Vertebrates - Beach and Bank Collecting for Amateurs which continues to sell as far away as Maryland and Ohio.

George Hecht, Treasurer

Membership Report

Membership numbers are in decline for another year. We are losing current members faster than we can attract new ones, but why? Primarily, members are losing interest in paleontology or in the FPS. I've heard from older members, some of them founding members, that ailing health and spiraling expenses leave them no option but to withdraw from the Society, others fail to pay dues and are dropped from the mailing list. Being a statewide organization with a geographically broad membership, the officers and board can not easily gauge the satisfaction of members. If you are not happy with the FPS please contact us rather than fading away. Currently there are over 70 members that are behind in dues one or more years. Notices will be sent and without action those members will be dropped from the FPS. We will do our best to provide interesting, accurate, and up-to-date identification guides and stimulating meetings with unique collecting sites but the rest is up to you.

George Hecht, Membership Coordinator

New Vertebrate Paleontology Curator Jonathan Bloch arrives at the FLMNH!

Jonathan Bloch was born in San Francisco and raised on a small farm about sixty miles north in the town of Sebastopol, California. While the area is generally best known for its gravenstein apples and wine grapes, Jonathan's father worked in a furniture guild and his mother made stained-glass windows. Later, when his father started a job at UCLA (a Ph.D. in neurophysiology), Jonathan attended Pacific Palisades High School in Southern California. After volunteering in the George C. Page Museum in Los Angeles (the La Brea Tar Pits), Jonathan decided to follow a career in Paleontology at the University of California, Santa Cruz where he completed a senior honors thesis on the paleoecology of packrat middens under the guidance of Dr. Leo Laporte (B.S., 1993). Also while at UCSC, Jonathan spent his junior year in an education abroad program attending Flinders University in South Australia. Jonathan pursued his graduate studies at the University of Michigan with Dr. Philip Gingerich, completing a masters thesis on the cranial anatomy of the Paleocene primate *Carpolestes* (M.S., 1996) and a doctoral dissertation on the geology and paleontology of freshwater limestones from the Paleocene-Eocene of the Bighorn Basin, Wyoming (Ph.D., 2001). During his graduate years, Jonathan spent a lot of time in the field. While most of his collecting was focused in the

Green River and Bighorn Basins of Wyoming, he was also involved in collecting fossils in the Fayum Depression in Egypt, the Aral Sea Region of Kazakhstan, and the Bolochistan Province of Pakistan. After graduate school, Jonathan worked at the South Dakota School of Mines and Technology (Rapid City) as the Haslem Postdoctoral Paleontology Fellow. During this time, Jonathan began to

work on the fossil record of the earliest primates as well as starting a field program in the Paleocene deposits of the Crazy Mountains Basin of Montana.

Jonathan's current research interests are focused on addressing the role of climate change on mammalian evolution. Funded by the National Science Foundation, he continues to collect fossils from the late Paleocene in Montana and the Paleocene-Eocene boundary in Wyoming. He also continues to work on extraordinarily well-preserved Paleocene-Eocene mammal fossils prepared from freshwater limestones from these field areas to explore questions surrounding the origin and early evolution of primates. Recently, Jonathan traveled to a Paleocene coal mine in northern Colombia and collected a number of

vertebrate fossils in the same localities in which beautifully preserved tropical plants are found. This project has a lot of promise, and Jonathan plans to return to Colombia soon. Jonathan will teach Vertebrate Paleontology at UF next year.



Dr. Jonathan Bloch collecting in the Paleocene freshwater limestones of the Crazy Mountains Basin, Montana.

News from the Paleobotany/Palynology Division

The Paleobotany and Palynology team at the Florida Museum of Natural History continues to be active and productive in the study of fossil plants. Since July 1, 2002, 16 papers have been published or accepted for publication. One Ph.D. dissertation (Xin Wang) and one M.S. thesis (Sarah Corbett) have been completed based on the specimens stored in the collection. Currently we have six research scientists and three graduate students exploring the history of various plant groups through time (from Cretaceous to present) and geography (from Florida to around the world). The Paleobotany and Palynology collections also keep on growing, with approximately 300,000 fossil and extant specimens. As of September 2004, there were 50,000 accessioned fossil plant specimens, 1,200 modern fruits and seeds and 5,500 modern leaves referenced in the collections in the Paleobotany and Palynology databases. A pollen and spore reference collection is being assembled and catalogued by Dr. David M. Jarzen, and will be available for searches and exchange next year.

Dr. David L. Dilcher and Terry Lott are involved in a number of research projects. The focus of these projects is the evolution, geography and/or origins of particular plants in time and space. Terry Lott works directly with David Dilcher on several papers dealing with fossils from Brazil, China, Costa Rica, and Tennessee, and assists Dilcher with other projects such as a database for early angiosperms of the world and morphotypes of Eocene fossils of Tennessee. They are also involved with pollen counts of northeastern Florida. They are both involved in a study of the leaf morphology and cuticular anatomy of the woody plants of a particular modern swamp forest near Gainesville. Their research projects include

specific taxa such as a study of *Cooksonia* from the Early Devonian of Brazil, *Ephedra* from the Early Cretaceous of China, *Leptophloeum* from the Late Devonian of China, *Mangifera* from the Tertiary of Thailand, *Parapodocarpus* from the Early Cretaceous of Kansas, *Sphenobaiera* from the Early Jurassic of China, *Welwitschia*-like fossils from the Early Cretaceous of Brazil, *Wisteria* from the Miocene of China, and a variety of early angiosperms from the Early Cretaceous of China with Sun Ge of Jilin University in Changchun, China. Also, they have recently published a fossil flora from the Carboniferous sediments in Alabama, a history of leaf canopies, and leaf floras from the Early Cretaceous of Kansas. Drs. David Dilcher and Beth Kowalski are working on a few papers dealing with leaf physiognomy and climate of the eastern United States.

Dr. David M. Jarzen has returned to the FLMNH, joining once again the team in the Paleobotany and Palynology Laboratory. His interests will center on Florida and southeastern United States palynofloras from Tertiary and Quaternary deposits and lake cores. He will continue to work with Mary Dettmann (University of Queensland, Australia) on the geologic history and distribution of the Proteaceae worldwide. A joint paper with Livia Wanntorp (Stockholm) and Mary Dettmann examines the Mesozoic distribution of *Gunnera* and its comparison with fossil *Tricolpites reticulatus* (Cretaceous fossil pollen taxon). Several other projects are in various stages of development or completion and include work with David Dilcher on the sub-Recent vegetation of Saipan (Marianas Islands, South Pacific), and the pollen, spore and phytolith assemblages from a Mayan site at Motul de San José, Guatemala. Jarzen is also curating and cataloguing the modern pollen and spore reference collection (of about 8500 slides) as well

as the fossil palynofloral localities into a database compatible with the existing Paleobotany database. Jarzen has published two co-authored chapters in the just published textbook *Forest Canopies*

[http://www.elsevier.com/wps/find/bookdescription.cws_home/703163/description#description]

Dr. Steve Manchester continues working on extinct members of the dogwood, sycamore, and walnut families from the Paleocene of the Rocky Mountain Region. He is also making detailed comparisons of Eocene fossil leaf floras in North America, Europe and Asia. Hongshan Wang was hired as Paleobotany Collection Manager in March, 2003. In addition to the day-to-day curatorial activities, Hongshan continues his research on the angiosperm floras of the Cretaceous Dakota Formation.

Two students have graduated from the Paleobotany and Palynology lab during the past two years. Sarah Corbett finished her Master's thesis on the Middle Miocene fossil flora of Alum Bluff locality on the Apalachicola River in Liberty County, Florida. She has identified 13 leaf morphotypes and more than 20 species of well-preserved pollen and spores. The Alum Bluff fossil flora included a variety of ferns, and a variety of trees including hickories, pines, holly, and christthorn. Xin Wang completed his Ph.D. dissertation on the mesofossils from the Cretaceous age Dakota Formation of Kansas. The major accomplishment in his research is the discovery of many exceptionally well preserved fossils - CYTOPLASM FOS-SILS, he believes that the preservation is somehow related to a frequently seen but long ignored phenomenon - lightning. The mesoflora of the Dakota Formation and its paleoenvironment were reconstructed. Some of the well-preserved specimens were studied in

detail in terms of anatomy and systematics, and reconstructed in three dimensions using computer graphic technique.

Paula J. Mejia, a new graduate student from Colombia, joined us in September, 2004. For her master's thesis research, she will work on the biozonation of the Caballos Formation (Early Cretaceous) based on pollen and spores. The Caballos Formation is located in the Upper Magdalena Valley in Colombia. The main goal of this research is to learn about the flora in the Early Cretaceous from tropical regions, which is practically unknown in this area. This research will provide critical information on early angiosperm history, and the vegetation composition of some tropical ecosystems during the early radiation of the lineage in the tropics.

Judy Chen is a graduate student from the Botany Department, working with Dr. Manchester on the systematics and fossil history of the Vitaceae (Grape family) based on morphology. Judy is investigating features of flower, fruit, stem, pollen, seeds, and development as they are distributed among modern and fossil species of Vitaceae to gain an improved understanding of phylogeny and classification of this family, which is now widely distributed in both the Northern and Southern Hemisphere. Shusheng Hu is working toward his Ph.D. degree under the supervision of Dr. David Dilcher and Dr. D.M. Jarzen. Shusheng's research is focused on miospores from the Dakota Formation, North American Western Interior. He is working hard to discover the palynological evidence for early angiosperm diversity and dispersal during the Mid-Cretaceous, a period of rapid evolution of the angiosperms and a time that witnessed their adaptive radiation, and major lineage diversification at the level of subclass, order and even at the family level.



Announcing the Florida Paleontological Society's

Gary S. Morgan Student Research Award

9th ANNUAL COMPETITION

Prospectus and General Overview

The Florida Paleontological Society (FPS) is pleased to announce the 9th annual competition for its student research award. The purpose of this award is to promote a better understanding of **Florida paleontology** through new research discoveries. Eligible fields of relevance within paleontology include invertebrates, vertebrates, microfossils, and plants. This award is open to **any student, undergraduate or graduate**, in good standing at any Florida University or College.

For this 9th competition, the FPS has allocated an award of up to \$500. The grant's purpose is for expenditures such as (but not restricted to) field work, museum research travel, laboratory analyses, research materials, etc. It is not intended to fund travel to scientific meetings, indirect (overhead) costs, salaries, or wages. **Deadline for receipt of proposals is 1 December 2004.**

Applications must be postmarked on or before the deadline and be sent to the Awards Chairman at the address listed below. Applications will be reviewed by committee and judged based on the following criteria: (1) merit of proposed research, (2) feasibility of project, (3) clarity of expression, and (4) strength of recommendation letter from faculty sponsor. The screening/award committee shall consist of both professional and avocational paleontologists. The Awardee will be notified after 15 December 2004 and the FPS Treasurer will send a check for the requested amount (up to \$500) to the recipient.

It is expected that, during or after completion of the research, the recipient(s) will present results of their discoveries in the form of (1) a short article of a non-technical nature to be published in the FPS Newsletter and/or (2) a talk presented at an FPS meeting. In the event of the latter, the student's travel expenses to the meeting shall be paid by the FPS (this expense should not be included in the submitted proposal).

Application Process and Requirements:

The application is intended to be short - thus, items 1-4 (combined) are limited to two pages (minimum 10 point type, standard 1" margins). **The application must include:**

1. Title of research project
2. Name, address, and phone number (or email address) of applicant
3. Current college status (where enrolled, major, degree program, anticipated graduation date).
4. Project description written in **general, i.e., to the extent possible, non-technical**, terms to include a description of what he/she plans to study, why it is interesting or important, how and when it will be done, and a budget of proposed expenditures.
5. Appended to the proposal, a letter from a faculty sponsor who will vouch for the qualifications of the applicant (as well as the importance of the project) and a short statement that the faculty member will supervise the research.

Applications should be postmarked by 1 December 2004 and sent to:

Roger Portell, Awards Chairman
Florida Paleontological Society
Florida Museum of Natural History
University of Florida
Gainesville, FL 32611-2035

FPS Product Sales**Prices are for current FPS members only****Shipping and Handling Extra**

Butvar-76 (price per pound)	\$6.00
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
Papers in Florida Paleontology	\$4.00/set

***Aphelops humerus* in green clay.****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
*Printing delayed due to hurricane (to be shipped late October)	
Part 6, Larger Foraminifera	\$5.00
*Printing delayed due to hurricane (to be shipped late October)	

Fossil Species of Florida

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

To purchase the above items, please contact:

George Hecht, Treasurer

Florida Museum of Natural History

Box 117800

University of Florida

Gainesville, Florida 32611-7800

**VOLUNTEER TO EXCAVATE FOSSIL
VERTEBRATES WITH THE FLMNH**

Since 2001, several hundred persons have assisted the Florida Museum of Natural History's Vertebrate Paleontology program excavate a major new late Miocene locality in western Alachua County, about 15 miles west of Gainesville. This total includes many FPS members. The museum has scheduled a "dig" this year between November 16 and December 18, except the week of Thanksgiving. Hours are 9 AM to 4:30 PM, Tuesday through Saturday, plus two "bonus" Sundays. The two most common finds at the site are a large species of the rhino *Aphelops* and a small three-toed horse in the genus *Nannippus*. Ground sloth, giraffe-camel, llama, shovel-tusker, hornless deer, peccary, a large cat, and many others have also been recovered. Participants will be taught proper excavation techniques, how to accurately "map in" bones in a quarry, and how to make plaster jackets. All equipment and field supplies are provided by the museum. Minimum age for volunteers is 15. You can volunteer to work either a half or a full day, and for one day or many. Digging space at the site is limited, so we can only take a few volunteers per day, so if you wish to participate, we advise you to apply as soon as possible. As designated by the owners of the property, all fossils collected at the site become part of the museum's permanent collection.

For detailed information and links to an application form, see the web page http://www.flmnh.ufl.edu/vertpaleo/2004_dig.htm

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 Fossil Hunters
13th Annual Fossil, Mineral, and Gem Show**

Fossil Horses and Artifacts
Hourly Silent Auctions
Fossil digs for the kids!

Where: Central Florida Fairgrounds
4306 West Colonial Drive
Orlando, Florida

When: Saturday, November 13th 9am-5pm
Sunday, November 14th 10am-4pm

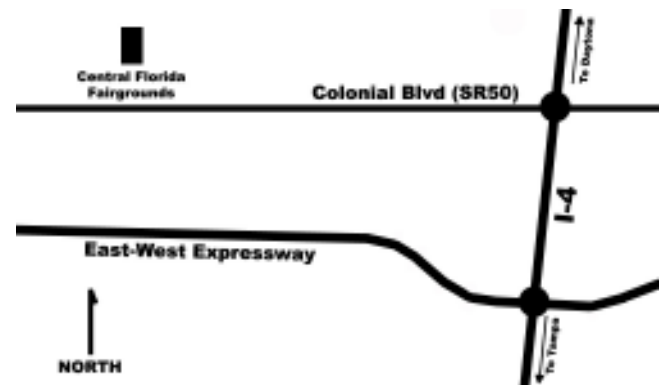
Directions: Take I-4 to downtown Orlando
Get off at the Colonial Drive/SR50 exit
and head West for about 4 miles to the
Central Florida Fairgrounds. It will be
on the north side of the road

Admission: Adults \$3.00
Children \$1.00

Contact: Bonnie Cronin (352) 429-1058
email bjrb48@netzero.com

or

Mr. & Mrs. Angell (407) 277-8978
email angell@floridafossilhunters.com



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.