FLORIDA PALEONTOLOGICAL SOCIETY

NEWSLETTER

VOLUME 23 NO. 1 SPRING 2006

Florida Paleontological Society, Inc. Fall Meeting – December 9-10, 2005 Bradenton, Florida

On the evening of Friday, December 9th, FPS members began arriving at the Days Inn in Bradenton that had been designated as the meeting place for the weekend's activities. Before long, some people began to congregate at Roger Portell and George Hecht's room to ask for identifications of their latest fossil finds and catch up on club news. Meanwhile, others rushed about town looking to replace the inevitable forgotten tools and items of apparel, while others visited local watering holes.

The biggest event of the weekend for most of us was a visit to SMR Aggregates shell pit located a short distance east of Sarasota. The mine exposes the famous Pliocene Pinecrest Beds of the Tamiami Formation that are noted for their rich assemblage of fossil mollusks estimated at more than 800 species, many of which are found nowhere else. Vertebrate fossils, especially marine mammals and shark teeth are also found in this unit. It proved very worthwhile to have an up-to-date membership in the FPS since this field trip was limited to only 40 members. Those, whose dues were current, got first crack at a chance to go. Shell mines of this age are seldom accessible to amateur collectors and no natural exposures along road cuts or river banks exist today.

The Fall meeting fieldtrip to a Pliocene shell pit near Bradenton was highly productive.

Therefore, the number of applications to go to this mine far exceeded the 40 available slots.

On Saturday morning the weather looked somewhat more promising than the previous day and by 8:30 am the Days Inn parking lot was full of eager FPS members. Each participant signed in and had his/her liability waiver notarized. We then formed a caravan to the mine site. Once on site we heard a brief safety lecture delivered by Roger and then went off in pairs and small groups to collect.

As promised there were "more fossils than you could shake a stick at", everyone found nice specimens of mollusks; several of the gastropods were unusually large and beautiful. We were allowed to collect in a very large area that contained many piles of shells that had been nicely exposed by recent rains. Greta Polites found rare murexes of the genera: *Pterorhytis* and *Subpterynotus*. Everyone found nice specimens of cowries, whelks, crown conchs, and innumerable others. Many of us, at George Hecht's suggestion, screened the finer sediments within in the shells when we got home and found many interesting tiny mollusks hiding within the larger ones.

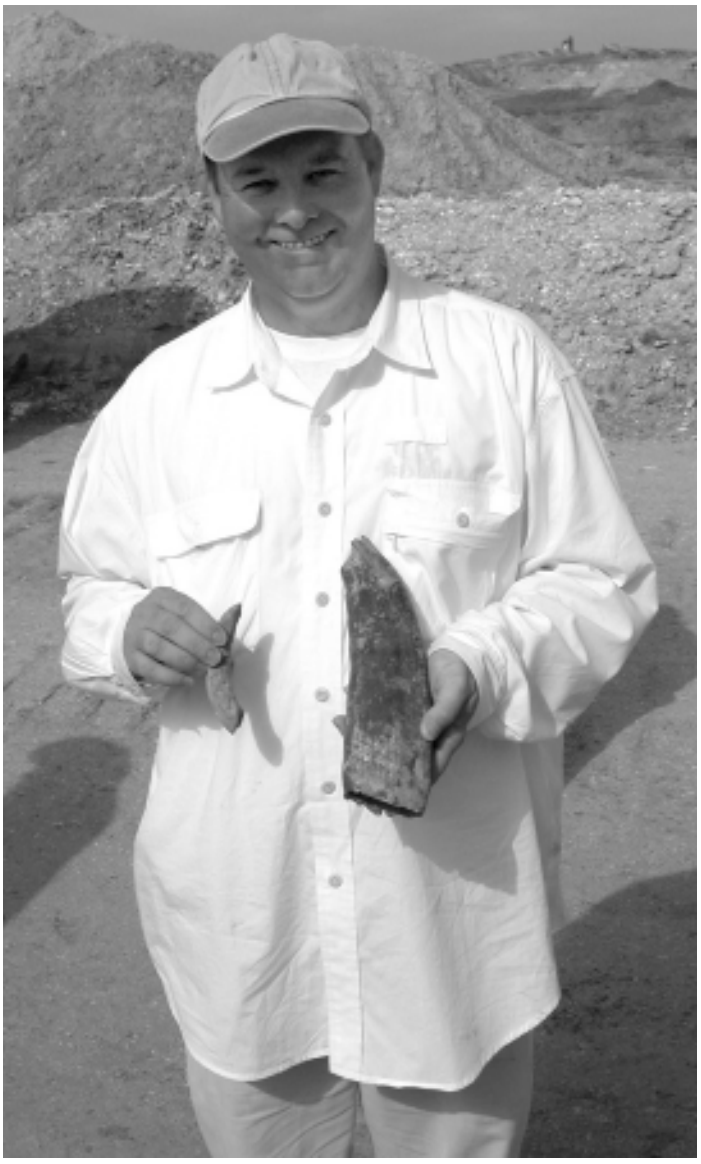
Some of the nicest vertebrate finds of the day were a couple of great white shark teeth, one collected by David Cale and another by Joe Dumont. Both Ted Akin and Roger found large sperm whale teeth. However, the best vertebrate find of the day was a large and complete walrus tusk found and donated to the museum by Jim Toomey. Additionally, numerous other shark teeth and whale bones, in various states of completeness, were found. After four hours of collecting most members were very tired, but all agreed it was a great place to collect and would gladly volunteer to return.

The afternoon was spent lunching, cleaning up, and comparing finds and stories with our fellow members. Saturday evening's festivities took place at the William Bashaw Elementary School and began with an impromptu test of the school's burglar alarm that earned high marks for being very loud. At any rate, we were soon admitted to the school's cafeteria where we enjoyed a delicious barbecue dinner courtesy of the Toomey Foundation. The new FPS T-Shirts and mugs with our *Hexameryx* logo were also available for sale at that time.

The evening's presentation, by Dr. Gregory Herbert of the University of South Florida, was most appropriate; after spending the morning collecting fossil mollusks. Greg treated us to an explanation of how two major groups of predatory gastropods; the muricids, (murexes) and naticids, (moon snails) attack and eat their prey (which consists mostly of other mollusks) by drilling through their shells. Greg discussed his research and showed slides of scanning electron micrographs of the tiny, but deadly radula (the feeding and drilling apparatus) of these gastropods. We also learned how to identify other types of predatory damage commonly seen on the fossil shells that we find.

We finished off the evening with an auction of books, disreputable t-shirts, casts, art works, and other items. There was spirited bidding on a number of items as members seemed to have brought their Christmas shopping lists with them. Everyone had a great time at this meeting and we would all like to thank, SMR Aggregates, Inc., Dr. Herbert, William Bashaw Elementary, Jim Toomey and The Toomey Foundation, George, and Roger for making it all possible.

Carol and Bernie Peterson, Cocoa, Florida



Jim Toomey holding a sperm whale tooth (*Physeterula*) on the left and on the right his rare find of a walrus tusk (*Trichecodon*).

Florida Paleontological Society, Inc. Minutes of Board Meeting held in Bradenton, Florida December 10, 2005 – 8:00 PM

The meeting was called to order by the President, Roger W. Portell. The reading of the minutes of the last board meeting was dispensed with as they were published in the last newsletter (Volume 22, Number 1). Discussions of old business followed:

Roger announced that the society now has field trip insurance that protects only quarry/mine owners and operators from any damage done to land and/or equipment by our society members. The liability limit is $2,000,000, and the cost to us is $200/year. A discussion followed about possibly having FPS members sign and notarize a disclaimer to absolve the society of any liability in case of injury to FPS members participating in society-sponsored field trips. Roger will look into that and report at the next board meeting.

George Hecht reported on the promotional items that have been created as a fund-raiser. 61 t-shirts with the club logo were now available for sale at $10 each. It cost the society between $6-7 each to make. Also, there are now 144 (12 dozen) coffee mugs printed with the society logo. These are for sale at $4 each.

The special S. David Webb Florida Museum Bulletin, that the society pledged $1000 is now ready. Our society has received 20 copies for this contribution along with

an acknowledgement in the bulletin. The FPS board will decide what to do with these copies at a future meeting.

The web site that we want to create is on hold. Jamie McLaughlin may no longer be in a position to help set it up. Therefore, Roger moved and Marcia Wright seconded to allocate $1500 to hire someone to set up and maintain a site for us. The motion carried.

The anticipated articles (*Fossil Species of Florida*) on single fossil species found in our state have not been published since August, 2003. Roger will discuss the situation with Richard Hulbert and report his findings at the next meeting.

Roger mentioned that the board-member field trips seem to be a success. The latest trip was to a site in L.A. (lower Alabama) where he and board members Marcia Wright, Marge Fantozzi, and George Hecht collected a new species of crab (*Costacopluma*) from early to middle Eocene sediments. More trips will be announced in the near future.

New Business: George Hecht reported on the budget for the Oct.31, 2004 – Oct. 31, 2005 year. The budget was approved by the board and a suggestion was made to put some of the money into CD's . This will be done prior to the FPS Spring Meeting. Roger Portell moved and Marge Fantozzi seconded that the society funds George to become a Notary Public. The approximate initial cost is a one-time fee of $99 and $30-40 per year after that. The board approved the idea.

The board meeting was adjourned and the general meeting and banquet followed.

Respectfully submitted,
Marcia M. 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.

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 Soceity, Inc. Newsletter, at the address inside the front cover.

News from the Florida Museum of Natural History's Paleobotany/Palynology Division

The FLMNH Paleobotany/Palynology Division ranks among the five largest paleobotanical collections in the United States [Smithsonian, Yale, University of California (Berkeley), FLMNH, University of Kansas, in sequence by current size of holdings]. The collection contains approximately 185,225 megafossil specimens and several thousand meso- and microfossil specimens from more than 1,380 localities and includes about 5,500 specimens that have been cited and/or figured in 170 research publications (for a complete list of these publications, see http://www.flmnh.ufl.edu/paleobotany/publications.htm). This important national resource has been acquired through NSF- and Museum-supported research and by private donations.

Paleobotany range at the FLMNH. Compactors housing the vast collections are located in the back.

Graduate Research Professor, **David Dilcher**, continues research on many fronts, including some of the oldest known fossil flowering plants from the early Cretaceous of northeastern China. The same deposits have produced early birds and feathered reptiles. David is also working on a number of projects that include aspects of flowering plant diversity through time and evolution of specific groups or those that are tied to particular environments. Overseas work involves collaborations with researchers from the Netherlands, Germany, China, Brazil, Thailand, India, and Chile. Some of this research is question-based and some of it is finding and identifying and relating certain fossil material to flowering plant taxa or general plant groups. Also, he has been interested in the use of fossil plants to determine the nature of past climates. It is now known that when carbon dioxide was higher, the temperatures in the world were also higher. One interesting study Dr. Dilcher just published (in collaboration with F. Wagner, W. Kurschner, T. Donnders, and H. Visscher) comes from a swamp just 2 miles east of Gainesville. Core samples from the peat in this swamp are only 75 years old. But they follow the recent increase in world wide carbon dioxide levels and show the effects of cycles of

precipitation and the water level fluctuations in the swamp. As they refine the methods of this type of analysis, the authors want to extend the study back to millions and tens of millions of years ago to examine climate cycles and the response of world climate to changes in carbon dioxide. It is clear from what they now know that there is a direct correlation. Furthermore, with some collaborators in China (G. Sun) and Brazil (M.E.C. Bernardes-de-Oliveira), David is looking for evidence of the first flower. Terry Lott and Hongshan Wang are both involved in aspects of this research as well by looking for characters of the early reproductive biology of flowering plants. From what they know so far, early flowering plants did not have the sort of flowers that we associate them with today and some may have been cashew nuts, which have been recovered from the Eocene of Germany - rather a surprising development because cashews are native only in South America today. Dr. Manchester thanks those FPS members who aided in the collecting of fossil leaves from Alum Bluff, in Liberty County at the field trip in Spring 2005. These specimens, now deposited in the museum collection, were the focus of research by **Sarah Corbett**, who finished her Master's degree with Dr. Manchester in Dec. 2004, with a nicely illustrated thesis on the fossil leaves and pollen of Alum Bluff.

Collection Manager, **Dr. Hongshan Wang**, continues to improve the curation of the museum's holdings, which are now databased as new material arrives. The next goal, to place digital images of museum fossil

S. Manchester, T. Lott, D. Jarzen, D. Dilcher, H. Wang (left to right)

aquatic plants, like water lilies. Also, Dr. Dilcher and colleagues are developing more and more projects centered upon pollen analysis. They collect and analyze the atmospheric pollen on the roof of the FLMNH (Dickinson Hall) and publish the results in the local newspaper each day as an "Allergy Watch".

Curator, **Dr. Steven Manchester**, is collaborating with J. Xiang (NCS University) on the molecular phylogeny and fossil record of dogwoods and their relatives. He continues to work on the comparison of plant fossils preserved in early Eocene lake deposits in North America (especially Oregon and Wyoming), Europe (especially western Germany), and Asia (particularly NE China), to gain insights into major patterns of plant distribution in the Northern Hemisphere 50 million years ago. He enjoys tracking the fossil record of individual plant genera and families back through time based on the remains of leaves, seeds, flowers, and pollen. Currently Steve is writing a report on the oldest known plant specimens online for the convenience of researchers, students and avocational paleontologists, is the subject of a recent grant proposal to the National Science Foundation. Hongshan also works to keep the web page up to date (http://www.flmnh.ufl.edu/paleobotany), as well as those of the Paleobotanical Section, Botanical Society of America (http://www.dartmouth.edu/%7Edaghlian/paleo/index.html). Following up on his PhD research, Hongshan has been completing journal articles on Cretaceous fossil leaf remains from Kansas, Minnesota, and Nebraska in collaboration with David Dilcher.

Terry Lott is working with David Dilcher on his autobiography that will be published in China, in March, 2006. Terry recently finished with David a treatment of the Eocene flora from Powers Clay Pit of western Tennessee and a treatment of the Pennsylvanian flora in the Black Warrior Basin of Alabama. Terry has one article accepted in the International Journal of Plant

Sciences dealing with *Wisteria* fossils from the Miocene of China, and one article under review in Review of Paleobotany and Palynology, dealing with a Pleistocene Flora of Costa Rica. Terry is also involved with collecting modern plants and plant macrofossils for the Sawmill Sink Project, a Holocene Blue Hole site in Abaco, Bahamas. This project is in cooperation with "The Friends of the Environment", and "Antiquities, Monuments and Museums Corporation" of the Bahamas. He is also working on the National Allergy Bureau Pollen Certification Process. This will allow the museum to be part of a national pollen counting network.

Dr. David Jarzen, Courtesy Research Scientist, continues to work on the palynofloras (marine and terrestrial) from the Avon Park Formation (mid-Eocene). This work with David Dilcher and John Wrenn (LSU) has provided new information on the nature of the land plants that grew in Florida and provided the pollen assemblage recovered from two quarry sites, one each in Levy and Citrus counties. The Avon Park Formation sediments are famous for well-preserved macrofossils of seagrasses that served as substrate for young brittlestars, seastars, crabs, and other invertebrates as earlier determined via the work of Roger Portell and others. The Eocene of Florida has been thought to be primarily marine but the new pollen data are providing evidence for plants that were growing on or near dry land, indicating that some areas were above sea level. The palynological work is nearing completion and will be published in the journal *Palynology*. In September, 2005, Dr. Jarzen presented the results of this work at the annual meeting of the American Association of Stratigraphic Palynologists in St. Louis, and in March (2006) he will do the same at a meeting of the Everglades Geological Society in Fort Meyers, Florida. David has recently returned from a three week trip to Brisbane, Australia where he and his wife Susan worked with M. Dettmann (Queensland Museum) completing a paper on the history and biogeography of several fossil members of the angiosperm plant family Proteaceae. The distribution and fossil record of this plant family is of major significance to an understanding of the evolution of the flora of Gondwana. While in Australia, David and Susan visited the Wollemi Pine propagation and distribution center in Gympie, Queensland. The Wollemi pine is a new genus of a recently discovered Australian gymnosperm whose fossil record extends as far back as the Jurassic. David and Dettmann published on the fossil record of this remarkable discovery a few years ago. Closer to home David will collaborate with David Dilcher and Terry Lott in a study of the plant macrofossils and microfossils recovered from a Blue Hole on the Island of Abaco in the Bahamas. The plant identifications and comparisons will aid in the interpretation of the paleoenvironment at the time of deposition of the Blue Hole sediments. This study is a cooperative work sponsored by Bahamian Government and the Florida Museum of Natural History.

Graduate student **Judy Chen** is our fossil grape connoisseur, conducting her dissertation research on the systematics and fossil history of the grape family. Seeds of grapes and their relatives are commonly preserved as fossils, but no one has done a worldwide survey of this record and its implications for diversification of the family, which is now spread among all but one of the continents. At the 2005 Botanical Society of America meetings, she delivered a lecture on "Fossil seeds of *Ampelocissus* (Vitaceae) from North and South America".

Graduate student **Shusheng Hu** is working on his dissertation focusing on Cretaceous plant microfossils and mesofossils from the Dakota Formation, Minnesota. He attended three professional meetings this past year. In August he presented a poster entitled "Eusporangiate fern sporangia from mid-Cretaceous Dakota Formation exposed in Minnesota" at the Botanical Society of America's annual meeting in Austin, Texas. In September he presented another poster "Angiosperm pollen in mid-Cretaceous coastal swamps" at the 38th annual meeting of American Association of Stratigraphic Palynologists in St. Louis. In the meantime, Shusheng worked with David Dilcher, David Jarzen, and Dr. H. Schneider from Universität Göttingen, Germany on Cretaceous Marattiaceae ferns. This is the first fossil record of Marattiaceae in post-Jurassic sediments. The paper that described this new discovery is in press with the *International Journal of Plant Sciences*.

Elizabeth O'Leary is working on her Master's degree with research on winged fruits and their fossil history in the Tertiary of North America. Currently, she is working with Steve Manchester and David Dilcher on a detailed reassessment of winged fruits previously attributed to the Combretaceae from the Eocene of Tennessee and Kentucky.

Paula Mejia is a Masters degree student working with Dr. Dilcher. She is studying the pollen from Cretaceous age cores from Colombia to determine the nature of the evolution of the tropical forests at low latitudes.

FPS 2006 Spring Meeting Announcement March 10 - 12

Fossil plants - changing times and changing environments, will be the theme of our Spring meeting to be held at the University of Florida Campus in Gainesville (**see insert**). This year we are cosponsoring the 23rd Midcontinent Paleobotanical Colloquium (MPC) hosted by the Florida Museum of Natural History. The MPC meets on a different campus each year, providing an informal forum for paleobotany students and professors to meet with others interested in fossil plants for social interaction and exchange of information and ideas. Welcome and registration will be in the lobby of Dickinson Hall, Friday afternoon through Saturday morning. Friday evening at 6:30 pm, we will have an informal barbecue dinner in the Dickinson Hall courtyard. During the day on Saturday, there will be a full program of fossil plant lectures by visiting scientists as well as students and staff of the Florida Museum of Natural History. During the afternoon, the paleobotany, invertebrate paleontology, and vertebrate paleontology collections will have an open house - providing an opportunity to see "behind the scenes" at FLMNH. Saturday evening please join us for the joint FPS-MPC banquet at the Paramount Plaza Hotel in Gainesville at 6:30 pm. The evening program at the banquet features a presentation by Dr. Kirk Johnson, Curator at the Denver Museum of Nature and Science, highlighting the successes of current collaborative amateur and professional projects in paleobotanical research (**see abstract below**). A silent auction Saturday night and a field trip to look at middle Eocene plant localities on Sunday is also being planned.

THE GREEN RIVER PALEOBOTANY PROJECT

Kirk R. Johnson[1], Richard Barclay[2], William Bateman[1], Beth Ellis[1], Michael Graham[1], Steve Wagner[1]

[1]Denver Museum of Nature & Science, Denver, Colorado, 80212, USA, kirk.johnson@dmns.org; [1]Northwestern University Museum, Evanston, Illinois, 60208 USA.

The Middle Eocene Parachute Creek Member of the Green River Formation is widely exposed in the Piceance Creek and Uinta Basins of northwestern Colorado and northeastern Utah and is world famous for spectacular fossil plants and insects. These 46-47 million year old fossils have been collected for over 100 years and are much younger and considerably different from the fossils from the fish-bearing Green River Formation from Fossil Lake near Kemmerer, Wyoming. Parachute Creek sites primarily produce fossil plants and insects but fish, birds, lizards, and other vertebrates are occasionally recovered. The flora and fauna from this unit enjoy huge popular interest and the collecting sites near Bonanza, Utah and Douglas Pass, Colorado are internationally known.

In 1991, The Denver Museum of Nature & Science (DMNS) began work at these sites with the guidance and help of B. Handley, S. Manchester, and H. and D. Emry and it rapidly became apparent that there were many more species than the 69 described by MacGinitie (1969). The Bureau of Land Management (BLM), the agency responsible for managing the fossil-rich federal land near Bonanza and Douglas Pass; the Western Interior Paleontology Society (WIPS); and DMNS formed a partnership in which WIPS fieldtrips excavated Green River fossils from Douglas Pass with common fossils going to the finder and rare fossils being transferred to DMNS.

In 1996, DMNS excavated and censused a quarry near Bonanza. The resulting collection of 989 identifiable specimens represents 48 species. The most common genera were *Parvileguminophyllum* (27%), *Cedrelospermum* (25%), *Macginitiea* (8%), *Rhus* (7%), *Allophylus* (6%), *Caesalpina* (4%), and *Cardiospermum* (4%). Based on other fieldwork and donations from private collectors, DMNS has now accumulated a large collection of Parachute Creek fossil plants representing more than 250 morphotypes from over 50 individual quarries.

Due to the popularity of the Bonanza and Douglas Pass sites, we perceived a need and a demand for a digital atlas of the flora. Such an atlas would be useful for amateur collectors because it would allow them to identify their fossils. It would be useful for land managers because it would help them to define the scientifically significant and rare fossils. Scientists would benefit by having a more educated collecting public who could in turn recognize rare specimens and donate them to research museums. PaleoCollaborator software developed by S. Wagner allowed for the launch of the GRPP website in mid-2004. The website (http://greenriver.dmns.org/) provides a method for these species to be available on the web for comparison and identification. The site also functions as a living prodromous of the flora with new taxa being added as they are submitted by the collecting public and approved by the team.

2005 Assests, Income and Expense Report

Assets						**2005**
Cash						
	Checking					$9,110.07
	Savings					$33,252.08
				Total		**$42,362.15**
Inventory						
	Thomas	(1687@ $1.27)				$2,133.00
	Converse	(570@ $3.25)				$1,852.50
	Hulbert	(11@ $23.97)				$263.67
	FFI parts 1-8	(~1100@ $2.91)				$3,201.00
	FSF 1-2	(585@ $2.43)				$1,421.55
	Sinibaldi 1	(47@ $8)				$376.00
	Sinibaldi 2	(48@ $4)				$192.00
	Butvar	(17lbs@ $51.12)				$87.04
	Leisey	(10@ $25)				$250.00
				Subtotal		**$9,776.76**
				Total		**$52,138.91**

Revenue			**2002**	**2003**	**2004**	**2005**
	Membership		$1,972.00	$3,460.00	$2,745.00	$3,250.00
	Sales					
		Thomas	$2,046.25	$2,170.25	$2,497.00	$2,078.25
		Converse	$509.00	$176.00	$137.00	$114.50
		PFP		$31.00	$28.00	$9.25
		Hulbert	$421.00		$31.00	$128.00
		FFI	$198.00		$268.00	$385.00
		FSF		$5.00		$56.50
		Leisey	$25.00			
		Sinibaldi				$10.00
		Butvar	$278.00	$196.50	$76.00	$459.00
		Bulletin				$161.72
	Book Royalties		$2,468.02	$830.00	$363.06	$431.77
	Interest		$222.59	$112.99	$94.19	$255.96
	Shipping		$146.75	$188.90	$173.75	$140.25
	Auction					$704.00
	Meeting Fee		$564.00	$1,085.00	$435.00	$1,205.00
		Total	**$8,850.61**	**$8,255.64**	**$6,848.00**	**$9,389.20**

Expenses						
	Newsletter		$442.60	$996.32	$1,204.75	$876.85
	FSF Printing			$2,460.99		
	Postage		$878.36	$646.35	$760.77	$901.52
	State Corp tax		$61.25	$61.25	$61.25	$61.25
	Office Supplies		$38.50	$168.20	$125.67	$280.92
	Morgan Award		$505.82		$507.80	
	Meetings		$1,066.58	$1,137.51	$1,158.29	$1,488.09
	Bank Charge		$114.00	$80.00	$80.00	$83.00
	Fine					$50.00
	IP Assistant		$400.00			
	Refund		$35.00		$9.00	
	Travel G & R					$398.19
		Total	**$3,542.11**	**$5,550.62**	**$3,907.53**	**$4,139.82**
	(Revenue-Expense)	**Grand Total**	**$5,308.50**	**$2,705.02**	**$2,940.47**	**$5,249.38**

Treasurer's Report

Greetings from the corporate headquarters in sunny Gainesville. As you can see from the financial report the society continues to function profitably as a result of publication sales and steady membership income. In 2005 there were 140 dues paying individuals, couples and families and we added Roger Portell to our growing list of Life Members. The dues reminder and ballot form brought in 70% of membership renewals for 2006. For those 44 holdouts please renew soon (you know who you are). New products introduced at the fall meeting were the t-shirt and coffee mug with the FPS logo. There are a few shirts left in the gray 50-50 cotton in sizes small to 2XL. If there is enough interest in a re-order in a different color (a beige or cream perhaps in 100% cotton), they can be ordered and ready for the spring meeting. The 2006 member mailing list is included with new members and corrections. A reminder, once again, to forward any change of mail or e-mail addresses. The fall meeting announcement came out prior to the mailing and those members got first choice on the limited field trip roster. As always it is a pleasure to serve as the Treasurer and I look forward to seeing you in Gainesville at the spring meeting.
George Hecht

Treasurer and sometimes model wanna-be George Hecht, exhibiting a new FPS t-shirt and coffee mug.

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 Preperation 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
Fossil Species of Florida	
Number 1, *Mammut americanum*	$4.00
Number 2, *Tapirus veroensis*	$4.00
T-shirt (sm - 2xl)	$10.00
Coffee Mug	$4.00
Sales Tax to be added (for Florida residents)	6.25%

To purchase the above items, please contact:
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....

Mr. Paul O. Knorr, a graduate student in the Department of Geology at the University of South Florida was the 2005 awardee. Each year a committee of FPS members selects a recipient for this award from a statewide pool of university student applicants. The $500 award is presented to an outstanding undergraduate or graduate student who is currently studying some aspect of Florida Paleontology. The following is a synopsis of Mr. Knorr's project.

Extinction-Induced Size Decrease of Mollusks During the Plio-Pleistocene in Florida

An established, though not ubiquitously accepted, biological principle known as Cope's Rule, states that species within distinct lineages tend to increase in size as they evolve; there is some disagreement as to whether this trend is a result of favorable selection, merely a result of increased variance from a small ancestor thatcan only become larger, or an aberration based on an incomplete understanding of phylogenetic trends. Although Cope's Rule generally applies through most time periods, a decrease in the size of descendant groups relative to their ancestors has been noted across mass extinction boundaries and may be a further reflection of the differences in evolutionary regimes relative to those that dominate during 'background' intervals. To date, the majority of these observations have been anecdotal; only a few brief studies (e.g., Hallam's study of bivalves across the end-Triassic extinction event and Lockwood's examination of Cenozoic Veneroid bivalves) of this size decrease, termed the 'Lilliput Effect', have been published.

In order to systematically examine the effects of a regional extinction on the size dynamics of Florida's molluscan fauna, I will investigate specimens prior to, during, and after the Florida Plio-Pleistocene regional mass extinction *(sensu* Stanley) to test the hypothesis that the mean size of phylogentically related groups decreases during the period of extinction. The study will focus primarily on related groups whose phylogenies are reasonably well constrained; this emphasis will allow for a meaningful comparison of size changes in groups that are phylogentically related. To accomplish this, length, width, and height will be measured, and approximate body mass of individual specimens calculated based on comparisons to modern counterparts. Bulk samples will be sieved through a two centimeter mesh and all relevant retained specimens will be measured. To resolve the potential effects of changes in ontogenetic development, growth lines will be counted and measured on a statistically significant (i.e. at least 30) number of individual specimens for each taxonomic group. I intend to measure several thousand specimens from the Holocene (Recent beach deposits), Pleistocene (Fort Thompson, Bermont, and portions of the Caloosahatchee), and Pliocene (portions of the Caloosahatchee and the Tamiami) epochs. The study will focus on relatively abundant bivalves and gastropods; specific members of these classes will be selected based on the availability of a sufficiently large collection of a given taxa. Less common faunal elements (e.g. barnacles, echinoderms, vertebrates) may be incorporated into the study if sufficiently large collections are available. Measurements of the abundance of individual taxa as well as the relative species abundance present in each sampling interval will also be recorded in the course of this study to assist in determination of the paleoenvironments.

Although aspects of this regional extinction have been investigated (e.g. Stanley, 1986), the results of a systematic investigation of size variations in related taxa have not been undertaken. If the Lilliput Effect indeed holds true, the ramifications of this study for understanding evolutionary trends could be significant. If animal groups experience a reduction in size across mass extinction boundaries, possibly due to preferential loss of larger individuals, then the evolutionary clock, at least with respect to size and mass, is effectively turned back during these critical periods. Study of the effects on Floridian taxa is especially useful because the Plio-Pleistocene extinction was confined to the Western Atlantic; Eastern Pacific fauna does not exhibit the effects of a mass extinction. If the Lilliput Effect can be demonstrated in Florida fauna, a subsequent study incorporating contemporaneous Eastern Pacific faunas as controls would aid in validating the evolutionary effects of the extinction event.

To accomplish the aforementioned goals, I intend to combine existing southern Florida Plio-Pleistocene specimens that were gathered in May-June 2005 under a National Science Foundation REU grant with new Holocene, Pleistocene, and Pliocene specimens. These new specimens will be gathered by bulk sampling in the spring and summer of 2006. Approximately twenty liters of material will be gathered at each site from all lithologically distinct units of appropriate age as determined in the field using index taxa. Holocene samples will be gathered from near-shore deposits in Lee County and Sarasota County. Pleistocene samples will be gathered from a quarry in Charlotte County. Pliocene samples will be gathered from a quarry in Sarasota County. Samples from all three time periods will be gathered from outcrops along the Caloosahatchee River. Specific sampling locations may be modified to accommodate access issues. Measurements of specimens from the collections of the Florida Museum of Natural History (FLMNH) may be used to augment portions of the data where the spatial distribution is deemed too limited. In order to identify and mitigate against possible errors in the data that might result from different collecting techniques, the FLMNH data will be maintained apart from the field data. This combined database will provide a time-series of Floridian Pliocene, Pleistocene, and Holocene stratigraphy and faunas. Specimens from the bulk samples will be measured and analyzed in the summer and fall of 2006 and the results of the study will be presented at both professional meetings and in a peer-reviewed journal by the spring of 2007.

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BIOGRAPHICAL FACT SHEET

1. NUMBER OF YEARS OF INTEREST IN PALEONTOLOGY_____

2. WHICH BEST DESCRIBES YOUR STATUS: COLLECTOR ___ OCCASIONAL DEALER ___ FULL TIME DEALER ___ PROFESSIONAL POSITION ___ JUST STARTING ___

3. PRIMARY AREAS OF INTEREST:

	VERTEBRATE	INVERTEBRATE	BOTANY	MICRO
PLEISTOCENE	____	____	____	____
PLIOCENE	____	____	____	____
MIOCENE	____	____	____	____
OLIGOCENE	____	____	____	____
EARLIER	____	____	____	____

4. LIST ANY PREFERRED TYPES (Echinoids, Crabs, Horses, Sloths, Plants, etc.).

5. LIST ANY PUBLISHED WORKS ON PALEONTOLOGICAL SUBJECTS.

6. DO YOU BUY _____ TRADE _____ FIND _____ FOSSILS?

7. LIST ANY SKILLS OR ABILITIES THAT MAY BE OF USE TO THE SOCIETY'S PROJECTS (RESTORATION, PERPARATION, COMPUTER USE, GRAPHICS SKILLS, SPEAKING, PHOTOGRAPHY, PUBLIC RELATIONS, WRITING, FUND RAISING, ETC.).

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PLEASE USE AN ADDITIONAL SHEET IF REQUIRED. THANK YOU!

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