



## FLORIDA PALEONTOLOGICAL SOCIETY

# NEWSLETTER

VOLUME 24 NO. 2

FALL 2007

### **Florida Paleontological Society, Inc. Spring Meeting – May 18 - 20, 2007 Gainesville, Florida**

This past meeting was a very special meeting for me. It was the first meeting I attended as president of FPS. I can not tell you how honored I feel to be chosen the FPS president. I have always enjoyed FPS meetings. It is my time to get away and relax. I am a teacher and teachers have very little free time during the school year. This meeting was no different. I jumped in the car

and he and Roger Portell were going to attend the funeral that Saturday. I told George I would handle the Museum backstage tour. George and Roger would be back for the Dinner and the auction Saturday evening. The social was a little subdued, but it was a very nice affair held in George's condo. George graciously allowed the club to have the social in his home since the club house was unexpectedly booked for a wedding. George was a very gracious host as always. He had a beautiful condo full of interesting things. We enjoyed the tour of the condo and good conversation.



***The Spring FPS meeting at the Denali Quarry. Late Eocene fossil sea biscuits, crabs and mollusks were found in abundance. Some members collected Early Oligocene sea biscuits also.***

after school and headed out to Gainesville, a 2 ½ hour trip from Orlando. A thousand things kept running through my mind. It was the end of the school year, and my mind was on closing out grades and packing up the classroom for the summer. I pushed school out of my mind and focused on more important matters, my first FPS meeting as president. Will everyone enjoy the meeting? Will everyone be happy with the arrangements? We had some last minute changes, but everyone that attended seemed to enjoy the meeting.

The meeting started on a sad note. George told me that Anita Akin had died in a diving accident on the Santa Fe River,

The next day about 10 FPS members took a backstage tour of the new shark exhibit at the Florida Museum of History. Kurt Auffenberg had graciously agreed to show our group how the museum staff were preparing for the exhibit. Kurt is the exhibits project manager at the museum. He is in charge of the new shark exhibit. Kurt showed us the process of creating an exhibit including models and layouts. He also took us to the prep room where model sharks were being made by the museum's artists. The Artists were doing a phenomenal job. The exhibit will be just incredible. I couldn't wait for the June 16th opening. The exhibit will be on display at the museum into the fall.

**FLORIDA PALEONTOLOGICAL SOCIETY  
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Address: Secretary, Florida Paleontological Society, Inc.  
 Florida Museum of Natural History, P.O. Box 117800  
 University of Florida, Gainesville, FL 32611-7800  
 (352) 392-1721 ext 254 - email: fps@flmnh.ufl.edu

That evening we re-convened to a lovely dinner at the China Super Buffet. I had lively conversations with many of our members. I was pleased to find that many of our members are teachers. The evening progressed to two interesting lectures by Dr. Jon Hendricks and Jane Mason. Jon Hendricks gave a nice lecture on sinister shells and Jane introduced herself and her different jobs as a vertebrate paleontology preparator. Both lectures were very interesting and gave lots of food for thought. After the lectures, Roger acted as our in house Auctioneer at our annual auction. All proceeds of the auction were donated to



***Melissa Cole and Caroline Krombach enjoying the quarry.***

the Multiple Sclerosis Society in honor of Nita Akin. We raised \$600.00. It was a wonderful evening. The final event was the field trip to a Quarry in Branford. Roger was on a quest for crabs. He found several promising ones. At the quarry, several members found *Rhyncholampas gouldii* echinoids. I found several very nice oysters and fossil sand dollars.

George found a very nice mollusk external mold which he thought would be a useful specimen for Roger. I also teamed up with a very nice fossil buddy, Caroline Krombach, an art teacher from Lakeland. We chatted and looked for fossils and before we knew it; it was time to head out. It was an enjoyable meeting from start to finish.

I hope everyone had a wonderful time. You just never know who you will meet and or what fossil you will find. Until the next meeting, Melissa Cole, Altamonte Springs, FL

*The Tapir Challenge Continues...*

# WANTED

## VOLUNTEER FOSSIL DIGGERS



# REWARD

*Experience of a lifetime, working with Florida Museum Paleontologists  
Discovering 2-million-year-old fossils!*

### DESCRIPTION

Museum paleontologists and volunteers have collected thousands of fossils from an Alachua County quarry site since work began in May 2005, but more volunteers are still needed. Experience is not necessary. All volunteers will receive training and will work with Museum staff and UF graduate students.

### REQUIREMENTS

Volunteers must be at least 18 years of age, maintain a moderate level of physical fitness and be able to work outdoors for a minimum of three hours.

### APPLY ONLINE

Go to [www.flmnh.ufl.edu](http://www.flmnh.ufl.edu) and follow the instructions.



**FLORIDA  
MUSEUM**  
OF NATURAL HISTORY.

**UF** UNIVERSITY of  
FLORIDA

**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.

**IMPORTANT: Please RSVP to:**

**George Hecht [fps@flmnh.ufl.edu](mailto:fps@flmnh.ufl.edu) or 352-392-1721 ext 254 by 1 November and indicate how many will be:**

1. Attending the Friday night Reception
2. Attending the Saturday field trip only
3. Attending the Saturday evening dinner and talks only (select meal choice below).
4. Attending both the Saturday field trip and dinner (select meal choice below).

Note: The two plated dinner choices are 1) Honey Baked Ham with sweet potatoes and market fresh vegetables or 2) Chicken Parmigianino with penne pasta and market fresh vegetables. Both come with assorted mini-desserts and drinks. Alcoholic beverages can be purchased separately.

The Holiday Inn Express is off I-75 exit 220, then west on SR64, turn right at light). Other motels nearby are the Days Inn and Econo Lodge East which are located along in the 67th Street Circle off exit 220B east of I-75, on the north side of SR64. Make your room reservations soon!

For meeting and lodging locations, refer to the maps on page 10.

**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.



# FLORIDA PALEONTOLOGICAL SOCIETY FALL MEETING November 9th-11th, 2007 Bradenton, Florida

## *Schedule of Events*

<b>Friday, Nov. 9th</b>	
6:00 – 8:00 pm	Wine and Cheese Reception at the South Florida Museum and Parker Aquarium (201 10th Street West). Museum tour included (Proper attire – no T-shirts).
<b>Saturday, Nov. 10th</b>	
8:30 am	Meet at Holiday Inn Express lobby (I-75 exit 220, West on SR64, turn right at light) to caravan to quarry (see map, page 10).
9:00 am - 1:00 pm	Quarry stop (pack suitable snacks and drinks).
1:30 pm - 5:00 pm	Clean up and rehydrate before the banquet. See local attractions such as the South Florida Museum (nice display of fossil material), and the Ringling Museum of Art.
3:00 pm - 4:30 pm	Board of Directors Meeting at Holiday Inn Express.
5:00 pm – 6:00 pm	Social Gathering at Mattison's Riverside Restaurant Pub (downstairs) on Own.
6:00 pm - 7:00 pm	Banquet at Mattison's Riverside Restaurant 2nd Floor (RSVP dinner choice no later than November 1st; see map, Page 10). (Proper attire - no T-shirts)
7:00 pm - 7:20 pm	Speaker: Jonathan Bloch-FLMNH, "The world's largest snake: new fossil discoveries from a 60-million year old South American tropical rainforest".
7:20 pm - 7:40 pm	Speaker: Jason Bourque-FLMNH, "Fossil turtles from Haile 7G".
7:40 pm - 8:00 pm	General Meeting introduction of new board members, reports, etc.
8:00 pm - 9:00 pm	Auction: T-shirts from the Hecht Collection and some new (or at least not worn) T-shirts, fossil casts, books, reprints, and much more.

### Details:

The quarry is large and there are more fossils than you can shake a stick at. With all of the rain and storms be prepared for mud holes and plan on some walking. Wear long pants and boots. Gloves, bucket, and a pick or tool for plucking shells recommended. Due to quarry restrictions no one under the age of 18 is allowed. A charge of \$5 for the field trip will offset insurance costs and provide a cooler of drinks. Insurance covers damage done to the quarry property due to member negligence, it is not medical or liability insurance for the individual. Field trip waivers will need to be notarized. Make sure to bring a photo ID. The banquet is located at Twin Dolphin Marina, 1200 1st Ave West, downtown Bradenton (cost \$20 per person; see map, Page 10). The Board meeting is at the Holiday Inn Express.

*Museum Reception and Meeting venue and the meal costs are generously being subsidized by the Toomey Foundation.*

**IMPORTANT:** Please RSVP to George Hecht [fps@flmnh.ufl.edu](mailto:fps@flmnh.ufl.edu) or 352-392-1721 ext 254 by 1 November and include the information requested on page 4

## News from the FLMNH Paleobotany and Palynology Division

(Contributed by all members of the Division and Compiled by Hongshan Wang)

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 January 1, 2006, 18 papers have been published or accepted for publication. Two MS theses (Paula J. Mejia and Elizabeth O'Leary) have been completed under the guidance of Drs. David Dilcher and Steve Manchester. Currently we have six research scientists and four graduate students exploring the history of various plant groups through time (from Cretaceous to present) and geography (from Florida to around the world).

In March 2006, the Paleobotany and Palynology group successfully hosted two meetings, the 23rd annual Mid-continent Paleobotanical Colloquium (March 10-12) and the Advances in Paleobotany Conference (March 12-15, a symposium recognizing the contributions of David Dilcher and Jack Wolfe to Paleobotany on the occasion of their 70th birthdays). About 120 scientists from the United States and 11 other countries attended these two meetings. The Dilcher/Wolfe Commemorative Volume is scheduled for publication this year. The volume includes 20 research articles on a range of paleobotanical topics, as well as biographical sketches for David Dilcher and Jack Wolfe contributed by investigators who attended the conference. Several FLMNH faculty and staff have been involved in getting this publication prepared and include David Jarzen, Steve Manchester and Susan Jarzen. Bruce MacFadden and Larisa Grawe DeSantis have contributed a paper to the volume.

Two students have graduated from the Paleobotany and Palynology lab during the past year. Elizabeth O'Leary finished her thesis on the fossil history of winged fruits. Paula J. Mejia finished her Master's thesis on the floral composition of a Lower Cretaceous paleotropical ecosystem based on quantitative palynology. She continues to work on her Ph. D. dissertation on the composition of palynofloras in the Early Cretaceous from different tropical regions, which have not been quantitatively analyzed. This research will provide critical information on early angiosperm history, dynamics and vegetational composition of several low latitude tropical ecosystems during the early radiation of the lineage in the tropics.

Judy Chen continues her research on the systematics and fossil history of the Vitaceae (Grape family) based on morphology. Judy's dissertation work, supported by an NSF grant, includes a world wide survey of modern and fossil grape seeds, with oldest known occurrences from 60-million-year old sediments in North Dakota, featured recently in the American Journal of Botany (September 2007). 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 improved classification of this family, which is now widely distributed in both the Northern and Southern Hemisphere.

Felipe De La Parra, a graduate student from the Geology Department, is interested in the fields of paleobiology and paleoecology, with emphasis in paleobotany. Felipe is also interested in biota diversity, its causes and how it relates to ecological stability, how plant communities have responded to environmental crisis in the present and geological past. His plans to approach these questions using paleobiological information by applying rigorous mathematical and statistical methods and by constructing theoretical models to understand the dynamics of the plant communities in the geological past. The result of this research can help us understand modern communities and their responses to the present environmental crisis.

Fabiany Herrera is also a graduate student from the Geology Department. His research focuses on paleobotany and paleoclimate. Fabiany works with fossil leaves from the Cerrejon Formation (Colombia), a paleoflora ~60 million years old. The goal of this project is to try to understand the evolutionary origin of South American tropical rainforest, and the climatic settings under which early rainforests appear. Fabiany is interested to know what mechanism produced the high diversity of modern South American rainforests, its phylogenetic history, and biogeography, and to explore the response of tropical climate to past global warming and its implications for global climate, especially during the early Paleogene (65-45 million years ago).

Dr. David L. Dilcher and Terry Lott are involved in a number of research projects. One involves the ongoing Cuticle Database Project, an Internet accessible database of cuticle types, prepared from modern leaves stored in the Paleobotany and Palynology Collection. This project is in collaboration with the Field Museum,

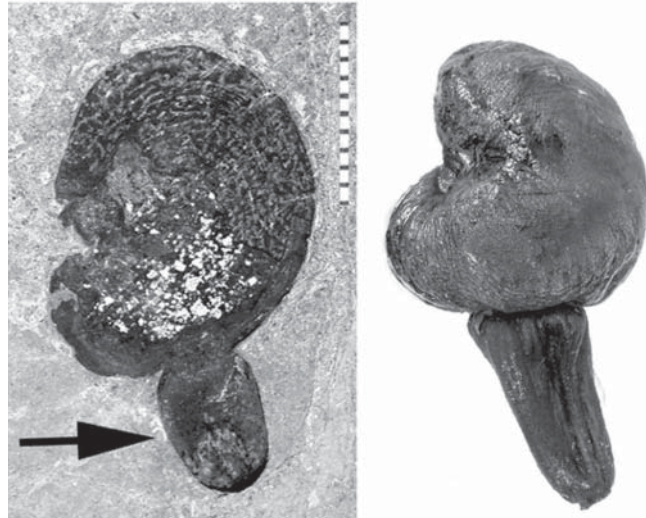
Northwestern University, and Pennsylvania State University. Dr. Dilcher and Terry also continue to count pollen on a daily basis. These data are recorded in a pollen database, a bi-weekly report is sent to the Gainesville Sun, and a weekly pollen chart is updated on the Paleobotany and Palynology website (<http://www.flmnh.ufl.edu/pollen/>). The NOVA television program called "First Flower" which aired on April 17th, 2007, featured paleobotanical research of David Dilcher and his Chinese colleague, Sun Ge, as well as insights on angiosperm diversification from the perspective of molecular phylogeny by Pam and Doug Soltis. Prof. Dilcher and Sun also published on a new early Angiosperm from Northeastern China, dated about 125 million years old, in the Proceedings of the National Academy of Sciences. They are currently analyzing 114 million year old angiosperm leaves from Brazil, an Eocene flower from Tennessee, and Oligocene plants from India. They also continue to build a worldwide database of Early Angiosperm fossil records, together with their stratigraphy and relevant references. During 2007, they have incorporated into the Paleobotany and Palynology Library a total of 2400 reprints and 200 books, donated from the Ward, Kremp, Kidston, and Christophel collections.

Dr. David M. Jarzen, together with Dr. David Dilcher, has published a paper in Palynology on Middle Eocene palynomorphs from the Dolime Minerals and Gulf Hammock quarries, Florida. He is currently working on the palynoflora from the Alum Bluff lo-

cality, Liberty County, Florida. With his wife Susan, Jarzen and Jarzen published an account on collecting pollen and spore samples from herbaria. Dr. 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.

Dr. Steve Manchester's research on the oldest cashew nuts recovered from 47-million year old rocks in Germany, indicating a history of the genus in Europe although the native range today is confined to tropical America will be published in International Journal of Plant Science (November 2007). Currently, he is collaborating with Dr. Margaret Collinson (London) and Volker Wilde (Frankfurt), on a treatment of the entire Messel fruit and seed flora, from the famous Eocene Messel beds of Germany, with over 120 genera, including the cashew nuts mentioned above. Some of the fruits and seeds were found preserved in the stomach contents of compressed fossilized mammals. His field work during the summer of 2007, involved continuing investigation of Paleocene leaf and fruit localities in Wyoming, Montana and North Dakota.

In addition to the day-to-day curatorial activities as the Paleobotany and Palynology Collections Manager, Hongshan Wang continues his research on the angiosperm floras of the Cretaceous Dakota Formation of north Western Interior and the Eocene floras of the Claiborne Formation of southeastern United States.



***Time for Nuts: The specimen on the left is a 47-million year old cashew nut from the famous Messel excavation near Darmstadt, Germany. On the right is a modern cashew nut from Brazil. In both cases, the distinctively curved nut is seated on an expanded stalk, known as the hypocarp, known to attract bats and other mammals that eat and disperse cashews. The surprise discovery of cashew fossils in Europe indicates that the genus which is now native to tropical America, had a broader range during the warmer climate of the Eocene. The new species, Anacardium germanicum (left) was described in the October 2007 issue of International Journal of Plant Sciences coauthored by S. Manchester.***

## Glowing Shells! The Utility of Ultraviolet Light for Identifying Fossil Snail Species from Southern Florida

By Jonathan R. Hendricks

The Miocene, Pliocene, and Pleistocene (or, Neogene) geological record of the Caribbean and southeastern United States contains a bewildering diversity of fossil snail shells. Under normal light, these bleached white or tan-colored shells—which otherwise tend to be very well preserved—appear to lack the coloration patterns that are so useful for identifying their modern counterparts.

To the great benefit of paleontologists studying Neogene snail fossils, Axel A. Olsson developed (but never published) a process in the 1960's that allowed original shell coloration patterns to sometimes be observed and photographed under ultraviolet (UV) light. Olsson's methods were described, expanded upon, and successfully utilized by Kamp (1967), Vokes and Vokes (1968), Hoerle (1976), and Pitt and Pitt (1993) in their taxonomic studies of different groups of Neogene snail fossils. Krueger (1974) provided the most complete

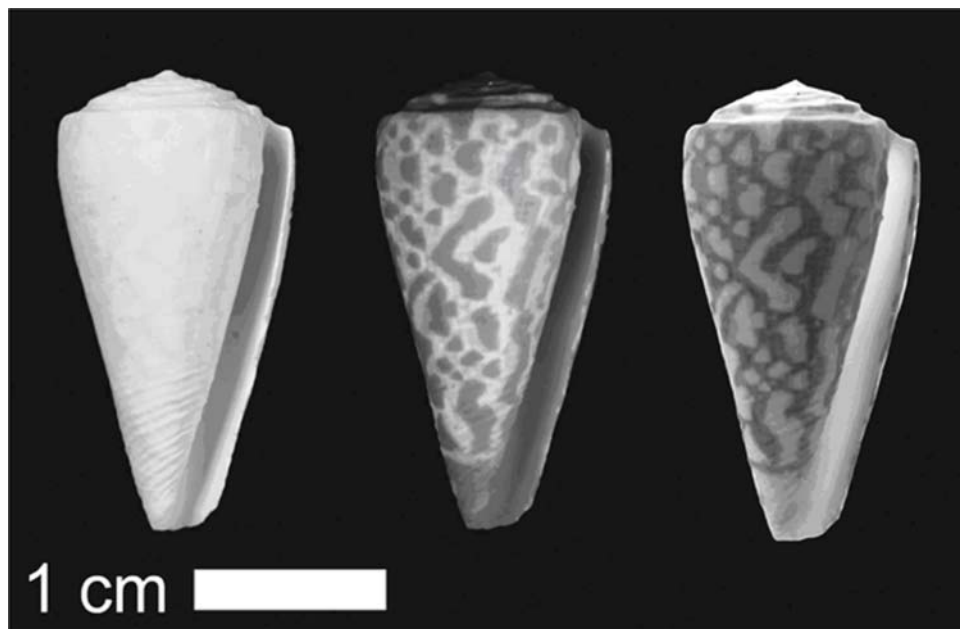
account of why these fossil shells fluoresce under ultraviolet light and she also presented a thorough methodology describing how to photograph them under UV light. In general, electrons within the ancient pigments (which are in turn locked within the fossil shell matrix) become excited when bombarded with

UV light, causing them to attain a higher energy state and fluoresce, or release light. For reasons that are not entirely clear, leaving fossil shells in household bleach for up to 72 hours prior to photography often greatly enhances the patterns observed under UV light.

It is important to note that ultraviolet rays can cause dangerous burns to the eyes and skin; appropriate protection (e.g., ultraviolet protective safety goggles, long-sleeve shirts) should always be used when working with UV light.

As described below, I have developed methodologies for digitally photographing fossil shells under ultraviolet light and have found this process to be highly useful for studying the taxonomy of Plio-Pleistocene *Conus* (or cone shell) fossils from the southeastern United States, the focus of my Ph.D. dissertation work. In this species-rich snail genus, shell coloration

patterning is one of the most useful character types for identifying living species, which tend to otherwise have very similar shells. My study of fossil cone shell taxonomy has been greatly benefited by observation of shells under UV light (particularly those from the Pinecrest Beds and Caloosahatchee Formation of southern Florida). Observation of these patterns, in addition to other shell character types, has led



**Figure 1—A specimen (PRI 54626) of *Conus parano-bilis* Petuch, 1991 shown under normal (left), ultraviolet (center), and inversed ultraviolet light (right). This specimen is from the Pinecrest Beds (upper Pliocene Tamiami Formation) of Collier County, Florida.**

me to conclude that many cone shell forms previously described as distinctive species should instead be unified (or lumped) under single species names because they share very similar aspects of shell form. Consequently, a major finding of my dissertation work has been that Plio-Pleistocene *Conus* species diversity has



been greatly overestimated in the southeastern United States.

Study of fossil snail shells under UV light first requires identification of appropriate specimens (some specimens fluoresce much more strongly than others). I have had success identifying these specimens by taking large suites of untreated specimens into a dark room and then passing an ultraviolet light over them. Specimens with decent potential for UV photography generally show some weakly fluorescing patterns during this search and are selected for further treatment. Next, these selected shells are submersed in a solution of about 50% household bleach and 50% water for one to several days (again, earlier workers have used stronger concentrations of bleach for longer periods of time). Afterwards, these shells are completely dried prior to UV photography.

I have used several different digital cameras to photograph shells under UV light. Most importantly, the camera to be used should have a feature that allows its settings to be manually adjusted; it is also helpful if a remote control is available to shoot pictures. The camera is best mounted on a copy stand or tripod to keep it steady. I place fossil shells in black sand during photography in order to hold them steady and orient them as desired. In order to attain uniform lighting, it is best to acquire a pair of ultraviolet lamps and orient them on opposing sides of the shell. I have used a pair of Raytech's affordable Versalume lamps for this purpose and have been happy with the results they produce. During photography, the room should be made as dark as possible, with only the UV lamps providing illumination; this result can also be enhanced by draping a heavy, dark sheet over the camera, fossil, and UV lamps. Under the manual adjustment mode, I have found that F-value settings of about 7.1-8.0 and shutter speeds of 10-30 seconds work best for photographing most shells. Because the shutter must be kept open so long under these low-light conditions, it is critical that the camera be kept steady in order to avoid blurry pictures.

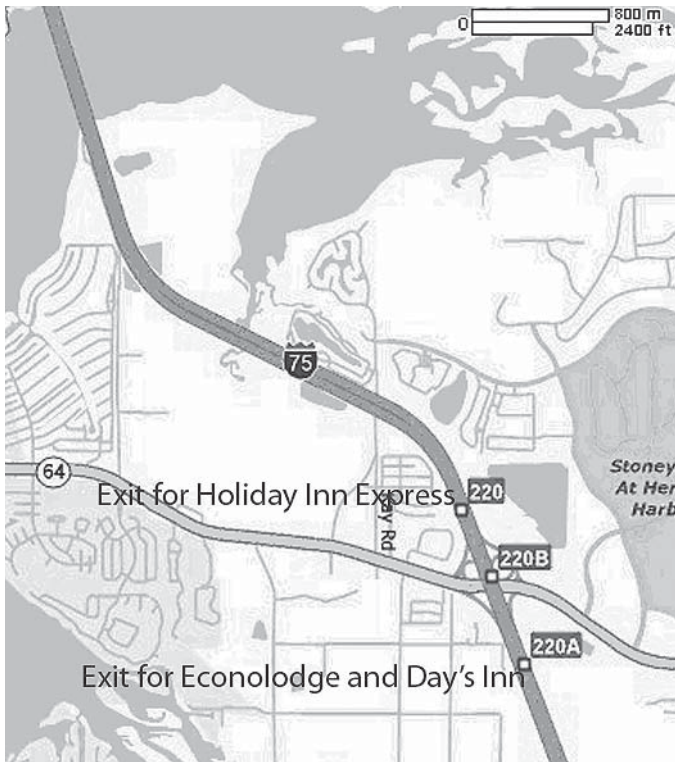
After the photographs are shot, significant improvements can be made using digital imaging software packages (such as Adobe Photoshop Elements). As noted by Krueger (1974, p. 46), when "color patterns fluoresce under ultraviolet light, they appear to

the human eye as photographic negatives of the color pattern on a modern shell"—that is, pigmented regions glow, whereas unpigmented regions are dark. In order to see what the shell would have looked like when the animal was alive, one can use the digital imaging software to create a negative (or inversed) image of the digital photograph; this makes the brightly fluorescing pigmented regions appear dark, as they would have in life. Adjusting the brightness and contrast of the image, as well as its levels, can lend further improvements to its quality.

An example of a single fossil *Conus* shell under normal and ultraviolet light is presented in Figure 1. As you can see, a coloration pattern is revealed under ultraviolet light that is barely visible under normal light. How many of the Neogene fossil snail shells in your collections show glowing patterns under UV light? See if you can find coloration patterns that might be useful for grouping or differentiating specimens of otherwise similar looking snail shells in your own collections.

## References Cited

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**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

Part 9, Mollusca (Shoal River Formation) \$7.00

Part 10, Eocene and Oligocene Corals TBA

**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 (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

## Announcing the Florida Paleontological Society's



# *Gary S. Morgan Student Research*

## *Award*

### 12th ANNUAL COMPETITION

#### **Prospectus and General Overview**

The Florida Paleontological Society (FPS) is pleased to announce the 12th 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 12th 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 2007.**

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 2007 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 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 2007 and sent to:***

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

**FLORIDA PALEONTOLOGICAL SOCIETY, INC.  
APPLICATION FOR MEMBERSHIP**

**Mail completed form to :**

Florida Paleontological Society  
University of Florida, Box 117800  
Gainesville, FL 32611-7800

New \_\_\_\_\_ Renewal \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Email address \_\_\_\_\_

**TYPE OF MEMBERSHIP**

- |                                      |                                      |
|--------------------------------------|--------------------------------------|
| 1. INDIVIDUAL ACTIVE (\$15.00) _____ | 2. INSTITUTIONAL (\$15.00) _____     |
| 3. COUPLES (\$20.00) _____           | 4. FAMILY (3 or more \$25.00) _____  |
| 5. LIFE (\$500.00) _____             | 6. ASSOCIATE (under 18 \$5.00) _____ |

NOTE!! MEMBERSHIPS ARE FOR A CALENDAR YEAR AND ARE DUE NO LATER THAN JANUARY 1 EACH YEAR!  
PLEASE RENEW ON TIME!

**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.).

8. LIST ANY UNUSUAL SPECIMENS FOUND, CIRCUMSTANCES UNDER WHICH THEY WERE LOCATED AND THEIR DISPOSITION.

PLEASE USE AN ADDITIONAL SHEET IF REQUIRED. THANK YOU!

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