

Florida Paleontological Society , Inc.

Newsletter



Volume 8 Number 2 Spring/Summer Quarters 1991

FLORIDA PALEONTOLOGICAL SOCIETY, INC.

OFFICERS

President: William Webster, 12457 Condor Dr.
Jacksonville, Florida 32223
President-Elect: Jim Pendergraft, 17 Jeff Road
Largo, Florida 32544
Past President: Don Lorenzo, 10010 Belleshore Circle
Jacksonville, Florida 32218
Vice President: Roger Portell, Florida Museum of Natural History
Gainesville, FL 32611
Secretary: Eric Taylor, P.O. Box 3506
Lake City, Florida 32055
Treasurer: Kevin Schindler, Florida Museum of Natural History
Gainesville, Florida 32611

BOARD OF DIRECTORS

Tim Cassady, Marianna, 1993	Don Crissinger, Nichols, 1992
Gordon Hubbell, Miami, 1992	Clifford Jeremiah, Jacksonville, 1992
Rudi Johnson, Tampa, 1991	Joe Latvis, Dade City, 1991
Sue Pendergraft, Largo, 1991	Marilyn Whetzel, Boca Raton, 1993
Phil Whisler, Venice, 1992	Bruce MacFadden, Gainesville, 1993
Frank Rupert, Tallahassee, 1993	

COMMITTEES AND APPOINTMENTS

M. C. Thomas Book:	D. Webb, Roger Portell, Kevin Schindler
Nominations:	D. Lorenzo, Rudi Johnson, Tim Cassady
Finance:	K. Schindler, R. Portell, B. MacFadden
Spring Meeting:	S. Pendergraft, J. Latvis, J. Pendergraft
Fall Meeting:	R. Portell, J. Setty, A. Brown, R. Johnson G. Morgan, F. Rupert
Membership:	Bob Marsh, A. Brown, B. MacFadden
By-Laws:	A. Brown, Bob Marsh
Honorary Members and Awards:	D. Webb, J. Pendergraft, C. Jeremiah
Historical:	B. Waller, C. Jeremiah
Board of Editors:	Gary Morgan, Frank Rupert, Jeremy Setty David Webb
Museum Representative (appointed):	Doug Jones
Resident Agent:	S. David Webb

HONORARY MEMBERS

Margaret C. Thomas, Joe Larned, Ben Waller

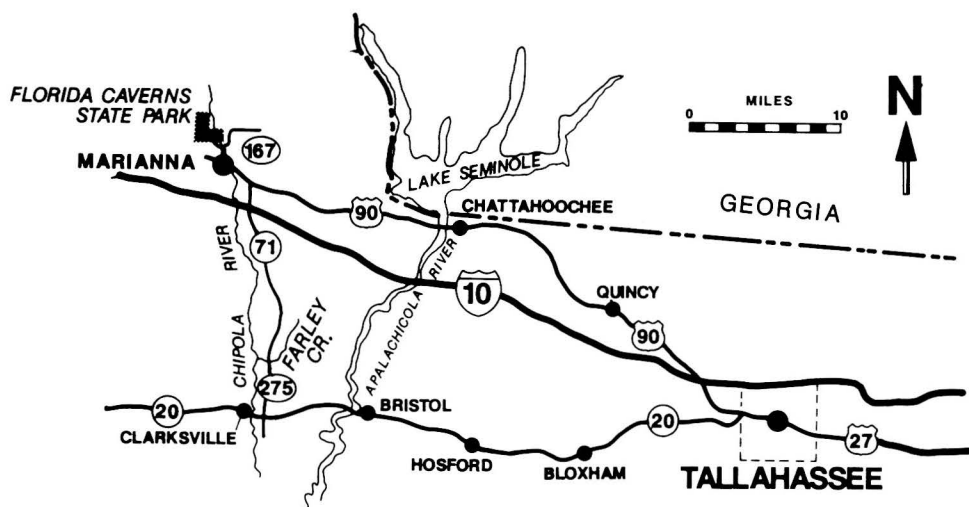
INFORMATION, MEMBERSHIP, AND PUBLICATION INFORMATION

Please Address: Secretary, Florida Paleontological Society, Inc.
Florida Museum of Natural History
University of Florida
Gainesville, FL 32611

FLORIDA PALEONTOLOGICAL SOCIETY

ANNUAL MEETING

October 11-13, 1991
Tallahassee, Florida



ACTIVITIES WILL INCLUDE:

FLORIDA GEOLOGICAL SURVEY OPEN HOUSE

BANQUET DINNER AND TALK

TOUR OF MARIANNA CAVERNS

TOUR OF FLORIDA MUSEUM OF HISTORY

COLLECTING TRIP TO MIOCENE OUTCROPS ALONG

FARLEY CREEK

(SEE INFORMATION AND RESERVATION FORMS INSIDE)

CONTENTS

	Page
Message from the Editor	1
News from the Florida Museum of Natural History	2
News from the Invertebrate Paleontology Collection	2
News from the Vertebrate Paleontology Collection	3
FMNH Fossil Study Center to open in November	4
Other Paleontological News from around the state	4
Upcoming Events	4
Florida's Ancient Life:Fossil Study Center opening schedule	5
Annual Meeting schedule	6
Annual Meeting map and motel list	7
Paleobotany Comes to Florida	8
The Wakulla Springs Mastodon	10
Minutes of the March, 1991 Board of Directors meeting	13

MESSAGE FROM THE EDITOR

This issue of the FPS Newsletter has a two-fold significance. First, it is my novice attempt at being a newsletter editor. I appreciate the vote of confidence you provide in allowing me to do this (at least once). Second, this is a special double issue covering two quarters of the year. One of our goals should be to attempt to produce four newsletters a year on an as close to quarterly basis as possible. Perhaps this is just the optimism of a beginner showing, but it's certainly worth a try. You, the members of FPS, can be of immense help in this endeavor. Please keep sending the paleontological news items, articles, newsletters, Museum happenings, book reviews, and other interesting tidbits. It's always a help when lengthy articles are provided on a floppy disk (ASCII, Word, WP, or WS o.k.). This is your newsletter, and it should reflect the varied paleontologic interests and perspectives of the membership. All ideas and suggestions are welcome!

The Fall issue will probably be published sometime in November. Please try and get your submissions in by late October. You may mail them to me at the following address: Florida Geological Survey, 903 W. Tennessee St, Tallahassee, FL 32304, fax them to me at (904) 488-8086, or give them to an FPS Officer or editorial committee member to forward.

Frank Rupert

NEWS FROM THE FLORIDA MUSEUM OF NATURAL HISTORY

FROM THE INVERTEBRATE PALEONTOLOGY COLLECTION

Dr. Douglas Jones is continuing research on the stratigraphy and age of various Neogene formations of Florida, coordinating the integration of biostratigraphy (vertebrates & invertebrates), magnetostratigraphy, and chemical stratigraphy. The most recent publication in this research effort, a study of the age of the fossiliferous beds at the famous APAC Shell Pit in Sarasota, is scheduled to appear in the September issue of the *Journal of Geology*. A number of fossiliferous units within the early Miocene and the Pleistocene are currently under investigation.

Dr. Jones is also involved in several other projects. For example, with **Dr. Stephen J. Gould** (Harvard University) he is studying the evolutionary patterns in a group of Jurassic oysters from Great Britain. He is currently completing a paper with **Debra Krumm** (University of Colorado) on some new species of peculiar, coral-boring bivalves from the Eocene of Florida. Along with **Dr. Warren Allmon** (University of South Florida), Dr. Jones is working on turrnellid gastropods from the Sarasota area. The focus of this research project involves the use of oxygen and carbon isotopes in the shells to reconstruct the Pliocene paleoenvironment of the region as well as to determine how long the individual snails lived and how fast they grew. Hopefully, the isotopic data will also offer some clues as to why such a great abundance of shell beds were able to accumulate in this region. This fall Dr. Jones will attend the annual meeting of the Geological Society of America in San Diego where he will present some of his research results and help lead a workshop for paleontologists on the subject of "Paleoecology". He is also co-editing (with **Dr. Tony Randazzo**, chairman of the UF Geology Department) a

book entitled: *Geology of Florida*. This book should be completed later this year and published sometime in 1992. Dr. Jones continues to teach courses in the Department of Geology at UF and supervise graduate students.

Roger Portell and **Kevin Schindler** have completed the initial reorganization of the collection onto the new compactor system and have recently finished unpacking and sorting the stratigraphic portion of the Muriel Hunter Collection and the McGinty Collection. Kevin will begin to curate the Plio-Pleistocene molluscs from these two large collections and Roger will curate the Eocene and Oligocene portions of the Hunter Collection. Roger is also busy upgrading many of the computer files associated with the collection and is conducting research with **Dr. Victor Zullo** (University of North Carolina at Wilmington) on the fossil barnacles of Florida. In the next issue of *Tulane Studies*, an article by Zullo and Portell (Balanoïd barnacles from the lower Miocene Parachucla and Penney Farms Formations, northern Florida) is expected to appear.

Irv Quitmyer, a new staff member in the I.P. Division, is presently curating the early Miocene molluscan fossils from the Chipola Formation of northern Florida. So far, he has identified 330 species of the estimated 1200 species from the formation.

Craig Oyen, a Ph.D candidate in invertebrate paleontology, is currently studying growth and evolution in echinoids from the Gulf Coastal Plain. His research combines a year-long experiment on the living sand dollar *Mellita quinquesperforata* at UF's Marine Biology Station at Seahorse Key. He hopes to determine the growth rate and morphologic changes during ontogeny for this echinoid. The information gathered from the living organism will then be applied to fossil *Mellitidae* to help define evolutionary mechanisms present in the phylogeny of this echinoid family. In August, Craig will also begin working part-time in the I.P. range preparing and cataloguing Eocene echinoids.

FROM THE VERTEBRATE PALEONTOLOGY COLLECTION

The Museum VP staff just recently finished a three month field season at the Moss Acres Site in Marion County, funded by a grant from the McKenna Foundation to **Dave Webb**. University of Florida Zoology graduate student **David Lambert**, who is studying the fossils from Moss Acres for his doctoral dissertation, coordinated the field effort. In addition to Dave Lambert, the Museum field crew consisted of **Russ McCarty**, **Gary Morgan**, **Art Poyer**, and **Erika Simons**. **John Claytor** of Ocala generously donated his time and considerable skills in operating heavy equipment to help remove a large amount of overburden covering the productive fossil-bearing layer. This year's discoveries at Moss Acres included a number of three-toed horse skulls, jaws, and a beautiful articulated hind limb. Rhinos were less common than in years past, but we did recover a nice pair of lower jaws from a very large male *Aphelops*. By far the best finds of the year were fossils of the large shovel-tusked gomphothere, *Amebelodon britti*. This species was named by Dave Lambert in honor of the late UF graduate student **Jerry Britt**, and was based on fossils from Moss Acres. This year's *Amebelodon* finds included three skulls, one with both tusks intact, and a pair of lower jaws. As many FPS members probably noticed, the 1991 Moss Acres dig also generated a great deal of statewide media attention.

Dave Webb and **Jim Dunbar** of the Bureau of Archaeological Research in Tallahassee are planning their annual underwater excavation on a paleoindian site in the Aucilla River for October. The Aucilla dig was originally scheduled for June, but excessive rain and high river levels forced the postponement of the project until the fall. As in years past, the Aucilla Project is being sponsored by a grant from the National Geographic Society. Other participants in the project include **Joe Latvis**, **Irv Quitmeyer**, **Erika Simons**, and **Mike Stallings**.

Bruce MacFadden is nearing the

completion of his book on the evolution of horses to be published by Cambridge Press. More detailed info on Bruce's book will be published in the next FPS newsletter. Dave Webb is currently in China attending an International Quaternary conference. Dave will be on a sabbatical during the fall semester. Among other projects, he is planning a research trip to Germany to study fossil ruminants.

Richard Hulbert and **Gary Morgan** are making substantial progress in their task as editors of the upcoming volume on the Leisey Shell Pit. At last count more than 20 paleontologists and geologists from around the country were planning to contribute papers to the volume on topics ranging from paleomagnetism and strontium isotope stratigraphy to fossil pollen and invertebrates, and of course-vertebrates. More detailed info (completion date, cost, etc.) on the Leisey Volume will be provided in the next FPS newsletter.

The editor of the Papers in Florida Paleontology, **Gary Morgan**, reports that three papers by **Roger Portell**, **Kevin Schindler**, and **David Nicol** on Cenozoic invertebrate fossils from Florida have been received and are now in press. These papers should be printed and in the hands of FPS members sometime in September.

Prep lab employees and volunteers are working on the numerous jackets generated by the recent excavations at Moss Acres, the horse farm in western Marion County. Due to the extreme shrink-swell nature of the clay at this site, long term storage of these specimens is not recommended since drying out causes serious damage to the bones as the clay shrinks and splits.

Volunteer **Pat Hylton**, a retired surgeon and naval officer, is working on a Moss Acres rhinoceros mandible. **Erika Simons** is finishing up the second mastodon tusk of a pair donated by **Danny** and **George Masters** last year. **Russ McCarty** is working on a number of projects including another mastodon tusk recently brought in by **Jim Dunbar** which had been in wet storage for the past several years. Wet specimens require extra care and special preservation compounds such as *Rhoplex* before they can be stabilized and placed in the collection.

FMNH FOSSIL STUDY CENTER TO OPEN IN FALL

The Museum's newest permanent exhibit, **Florida's Ancient Life: Fossil Study Center**, is slated to open in November. It is sponsored in part by the Florida Department of State, Division of Cultural Affairs through the Florida Arts Council. The Center features extraordinary specimens from the vertebrate and invertebrate paleontology collections, including the only mounted skeleton in existence of the false sabrecat, *Barbourofelis lovei*. Also on exhibit are the skeletons of a nine-foot sloth, a hippopotamus-like rhinoceros, a crocodile and a three-toed horse. Six-inch fossil teeth in the enormous jaw of an extinct white shark, a full-size, four-foot nautiloid, and a full-size replica of the front half of the primitive whale *Zigorhiza*, are representative of some of Florida's prehistoric, marine inhabitants. (See the opening announcement on following page).

OTHER PALEONTOLOGIC NEWS FROM AROUND THE STATE

The **Museum of Florida History** in Tallahassee recently renovated its Wakulla Mastodon exhibit, incorporating improved lighting, an updated information plaque, and new handrails. The mastodon skeleton was recovered from Wakulla Spring, south of Tallahassee, in the 1930's. The Museum also features a replica of a giant Pleistocene armadillo situated in a realistic diorama, complete with chirping birds and a breeze. It is well worth a visit if you are in the area. Admission is free.

The **Florida Geological Survey**, also in Tallahassee, has published a new poster on Florida's Fossil Mammals. The poster illustrates several extinct mammals from Florida's past for which complete skeletons are known.

The FGS's much sought-after but out of print Bulletin 31 (revised), *Springs of Florida*, has been reprinted in black and white by a private group. It may be purchased for \$27.95 plus postage from: Ocala National Forest Interpretive Association, 10863 E. Hwy. 40, Silver Springs, FL 32688; (904) 625-7470.

UPCOMING EVENTS

September 19-22, 1991: All American Gem and Mineral Show, Florida State Fairgrounds, Tampa. Will feature rocks, minerals, gems, and fossils. (813) 920-5224 for information.

October 4-6, 1991: Bone Valley Fossil Society, 8th Annual Fossil Fair, Best Holiday Travel Park, Winter Haven, FL., Phone Eric Kendrew, (813) 681-4350, for info.

October 11-13, 1991: Florida Paleontological Society Annual Meeting, Tallahassee. Includes Marianna Caverns tour and collecting trip to Miocene localities along Farley Creek with noted fossil mollusk expert Emily Vokes. Preregistration required. See information this issue.

October 18-20, 1991: Great American Gem, Mineral, Jewelry & Fossil Show, Kissimmee Valley Fairgrounds. Call Kay Kostas, (216) 779-9509 for info.

November 1-3, 1991: Imperial Polk County Gem and Mineral Society, Inc., 13th Annual Gem-Jewelry & Mineral Show, Best Holiday Trav-L-Park, Winter Haven. Contact Ernie Hitte, (813) 965-2182 for info.

November 22-23, 1991: Florida Museum of Natural History, Fossil Study Center Grand Opening, see information this issue.

The Florida Museum of Natural History
Announces the
Dedication and Grand Opening of
"Florida's Ancient Life: Fossil Study Center",
Friday November 22
and
Saturday, November 23, 1991

The museum staff are proud of this new and exciting study center. A number of special presentations are planned during the two-day grand opening. FPS members, please come join us!

Schedule of events:

Friday, November 22: *Members Opening and Dedication (for Museum and FPS Members), Florida's Ancient Life: Fossil Study Center, 5:30-7:30 P.M. Take a 50-million year long journey through Florida's fossil record in the museum's newest permanent exhibit. This exhibit is sponsored in part by the Florida Department of State, Division of Cultural Affairs through the Florida Arts Council.*

Exhibit Tidbits - Short presentations in the Fossil Study Center:

5:45 P.M.: **Fossil Marine Life:** Dr. Douglas S. Jones, Curator of Invertebrate Paleontology.

6:00 P.M.: **How to Reconstruct an extinct White Shark:** Dr. Clifford J. Jeremiah, Jacksonville.

6:15 P.M.: **Extinct Fossil Mammals:** Dr. Bruce J. MacFadden, Curator of Vertebrate Paleontology.

Saturday, November 23: *Grand Opening, Florida's Ancient Life: Fossil Study Center, 1:00-4:00 P.M. Spectacular skeletons, magnificent models, and sensational shells showcase Florida's prehistoric life from the 50-million-year-old Eocene Epoch to the end of the Pleistocene Ice Age 10,000 years ago.*

Museum Scientist slide and lecture programs in the classroom (limited seating):

1:00 P.M.: **The Fossil History of Nuts,** Dr. Steven R. Manchester, Assistant Curator of Paleobotany.

1:45 P.M.: **Florida's Fossil Shells,** Dr. Douglas S. Jones, Curator of Invertebrate Paleontology.

2:30 P.M.: **Florida's Fossil Mammals,** Dr. Bruce J. MacFadden, Curator of Vertebrate Paleontology.
also

Behind the scenes tours in the paleobotany, invertebrate paleontology, and vertebrate paleontology research collections.

FLORIDA PALEONTOLOGICAL SOCIETY, INC. ANNUAL MEETING

DATE: OCTOBER 11-13, 1991

LOCATION: TALLAHASSEE, FLORIDA

SPONSORS: FLORIDA GEOLOGICAL SURVEY AND FLORIDA PALEONTOLOGICAL SOCIETY

TENTATIVE PROGRAM

FRIDAY, October 11, 1991

6:00 to 8:00 PM Open House at the Florida Geological Survey located
on the Florida State University Campus

SATURDAY, October 12, 1991

9:00 AM Tour to Florida Caverns in Marianna, Florida.....Dutch Treat

12:00 PM Lunch at Fish Camp in Marianna.....Dutch Treat

2:00 to 4:00 PM Behind the Scenes tour at the Florida History Museum

4:00 to 7:00 PM Coffee Break
Annual Meeting
Board Meeting

7:00 to 8:00 PM Banquet

8:00 to 9:00 PM Program - Dr. Emily Vokes will be the speaker. She is
a well-known Invertebrate Paleontologist from Tulane University.
Dr. Vokes is most noted for her work on the early Miocene Chipola
Formation.

Following the program you will have an opportunity to met the
speaker. Gary Morgan, Roger Portell and Kevin Schindler, in
addition to others from the Museum of Natural History, will be
on hand for fossil identification. They will be available all
weekend also.

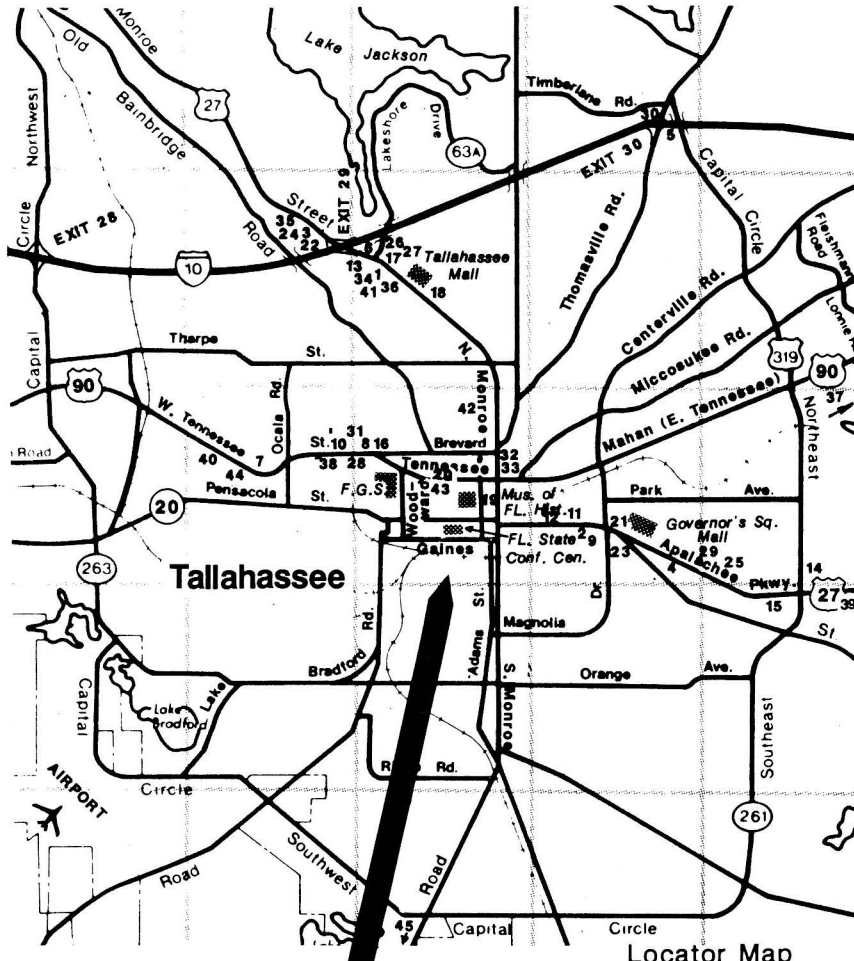
SUNDAY, October 13, 1991 - THIS TRIP IS LIMITED TO FIRST 100 PEOPLE TO REGISTER

8:00 AM Meet to travel en mass to Farley Creek for fossil hunt with
Emily Vokes and members of the Staff from the Florida Museum
of Natural History, Florida Geological Survey and other Experts
both known and unknown.

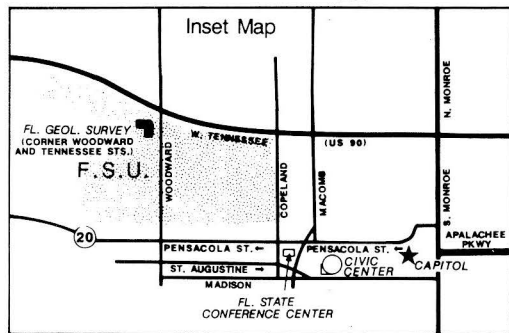
12:00 PM Bag Lunch - Drinks will be provided

2:00 PM Travel Home

FINAL DATE FOR REGISTRATION IS SEPTEMBER 15, 1991. NO REGISTRATIONS WILL BE
ACCEPTED WITHOUT A CHECK FOR THE FEES AS NOTED ON THE REGISTRATION FORMS
(SEE REGISTRATION FORM ON NEXT PAGE)



Locator Map Keyed to List



Tallahassee Motels

- | | | |
|---|---|--|
| <p>1. American Inn, (N) 2726 N. Monroe St., (904)-386-5000.</p> <p>2. Apalachee Motor Lodge, (O) 809 Apalachee Parkway, (904)-877-4143.</p> <p>3. Best Inns, (N) I-10 exit 29, 2738 Graves Rd., (904) 562-2378; 800-237-8466.</p> <p>4. Bowen Motel, (O) 3200 Apalachee Parkway, (904) 877-4416.</p> <p>5. Cabot Lodge, (N) 1653 Raymond Dichi Rd., (at I-10 exit 30), (904) 386-7500.</p> <p>6. Cabot Lodge, (N) 2735 N. Monroe St. (near I-10 exit 29), (904)-386-8880.</p> <p>7. Cactus Motel (O) 2633 W. Tennessee St., (904)-576-2222.</p> <p>8. Campus Inn, (O) 1402 W. Tennessee St., (904) 224-4174.</p> <p>9. Capitol Inn, (O) 1027 Apalachee Pkwy., (904) 877-6171.</p> <p>10. Colony Inn, (O) 2191 W. Tenn. St., (904) 576-5141.</p> <p>11. Courtyard by Marriott, (N) 1018 Apalachee Pkwy., (904) 222-8822; 800-321-2211.</p> <p>12. Days Inn, (O) 722 Apalachee Pkwy., (904) 224-2181.</p> <p>13. Days Inn, (O) 2800 N. Monroe (near I-10 exit 29), (904) 385-0136.</p> <p>14. Days Inn, (O) 3100 Apalachee Pkwy., (904) 877-6121.</p> <p>15. Dutch Inn (O) 2997 Apalachee Pkwy., (904) 877-7813.</p> <p>16. Econo Lodge (O) 1350 W. Tennessee St., (904) 222-3219.</p> <p>17. Econo Lodge, (N) 2681</p> | <p>18. Executive Suite, (N) 522 Scotty Lane (off N. Monroe near Tallahassee Mall), (904) 386-2121, 800-342-0090.</p> <p>19. Hilton Hotel, (E) 101 S. Adams St. (downtown), (904) 681-2535; 800-445-8667.</p> <p>20. Holiday Inn, (O) 316 W. Tennessee St., (904) 222-8000.</p> <p>21. Holiday Inn, (O) 1302 Apalachee Pkwy., (904) 877-3141.</p> <p>22. Holiday Inn, (O) 2714 Graves Rd. (at I-10 exit 29) off N. Monroe St., (904) 562-2000.</p> <p>23. Howard Johnsons (O) Magnolia Drive at Apalachee Pkwy., (near Governor's Mall), (904) 877-3171.</p> <p>24. Knights Inn, (N) 2728 Graves Rd. (near I-10 exit 29) off N. Monroe St. (904)-562-4700; 800-722-7220.</p> <p>25. La Quinta Inn, (N) 2850 Apalachee Pkwy., (904) 878-5099; 800-531-5900.</p> <p>26. La Quinta Inn, (N) 2905 N. Monroe St., (904) 385-7172.</p> <p>27. Las Casas Motor Inn, (N) 2801 N. Monroe St., (904) 386-8286.</p> <p>28. Lafayette Motel, (O) 1525 W. Tennessee St., (904) 224-1145.</p> <p>29. Leisure Inn, (N) 2020 Apalachee Pkwy., (904) 877-4437.</p> <p>30. Motel 6 (N) 1481 Timberlane Rd., (904) 668-2600.</p> <p>31. Ponce De Leon Motel (O) 1801 W. Tennessee St., (904) 222-4950.</p> <p>32. Prince Murat Motel (O) 745 N. Monroe St., (904) 224-3108.</p> | <p>33. Radisson Hotel (E) 415 N. Monroc, (904) 224-6000.</p> <p>34. Ramada Inn (O) 2900 N. Monroe, (904) 386-1027.</p> <p>35. Red Roof Inn (N) I-10 exit 29, (904) 385-7884; 800 843-7663.</p> <p>36. Regal Inn, (N) 2738 N Monroc, (904) 386-7878; 800 843-7663.</p> <p>37. Seminole Inn (N) I-10 exit 31 (U.S. 90), (904) 656-2938.</p> <p>38. Skyline Motor Lodge (O) 2400 W. Tennessee St., (904) 576-2157.</p> <p>39. Southland Motel (O) 3217 Apalachee Pkwy., (904) 878-5835.</p> <p>40. Sunset Motel (O) 2750 W. Tennessee St., (904) 576-5119.</p> <p>41. Super 8 Motel (N) 2702 N. Monroc, (904) 386-8818.</p> <p>42. Tallahassee Motor Hotel (O) 1630 N. Monroc, (904) 442-6183.</p> <p>43. Travelodge (O) 691 W. Tennessee St., (904) 224-8161.</p> <p>44. University Inn (O) 2121 W. Tennessee St., (904) 576-6121.</p> <p>45. Wakulla Springs Lodge (O) 15 miles south of Tallahassee at Wakulla Springs State Park, (904) 224-5950.</p> |
|---|---|--|

NOTE: (O) = Older motels, generally clean, and the most economical. Those on West Tennessee Street are close to campus, on busy street (U.S. 90). (N) = Newer motels, most 10 years old or less. Are nicer and slightly more expensive than older motels; many are chains. (E) = Relatively expensive by Tallahassee standards (\$65+ a night, but nice).

PALEOBOTANY COMES TO FLORIDA

David Dilcher and Terry Lott

In June of 1990, with three large moving vans and a rental truck, 100,000 fossil plant specimens, laboratory equipment and storage cases moved to Florida. This was the move of the Laboratory of Professor David Dilcher from Indiana University at Bloomington, IN. Dr. Dilcher was appointed as a Graduate Research Professor at the University of Florida. As part of this move several people, who were part of the lab at Indiana University came to the Florida Museum of Natural History, University of Florida in Gainesville, FL.

Dr. Steven Manchester was appointed as Assistant Professor in the FMNH and is also associated with the Department of Botany at UF. He is a world expert on the Tertiary vegetation of North America and has special experience with the study of fruits and seeds, petrified wood, leaves and flowers. He has lots of interesting stories to tell about the evolution of our modern day vegetation, how it evolved and where it came from.

Professor David Dilcher is working on aspects of the evolution of early flowering plants and their evolution and distributions during the Cretaceous and Tertiary. He was appointed Adjunct Professor with the Department of Botany, Geology, and Zoology at UF. Dr. Dilcher is also appointed Adjunct Professor with the Department of Biology at Indiana University.

Three graduate students also joined the paleobotany research laboratory at FMNH. These are Victor Call, who is asking questions about how did winged fruits and seeds evolve, how long ago and in what groups of flowering plants do we find winged propagules in the fossil record? Mike Muller, a graduate student in Botany, is asking about the nature of the first flowers of the world, what did they look like, how did they function and what plants living today were they related to? Qiangsheng (Chuck) Huang is trying to establish the stratigraphic value of dispersed pieces of leaf and stem cuticle in the Cretaceous, Dakota Formation, from Kansas. This is a pioneering work to explore new methods of understanding paleoenvironments and the use of plant fossils in dating strata.

Dr. Judith Skog joined the paleobotany laboratory in January 1991 from George Mason University where she is a Professor of Biology. She is here to work with Professor David Dilcher on fossil ferns from the Cretaceous and early Tertiary. She has a special NSF, Women in Science Fellowship, funding for her support. Dr. Herb Meyer, from Oregon, is a Postdoctoral Research Assistant, with Dr. Steven Manchester. They are working together on a revision of the Bridge Creek Flora from eastern Oregon.

When the laboratory first moved to the FMNH, Jon Yoder came to Florida because he had worked as a technician to help pack the fossils and care for them and the equipment we brought from Indiana University. He helped over see the construction of the laboratory, the compactors for the collection and the libraries. He helped with unpacking of the collection and its organization. Before facing another summer in Florida, Jon and his wife moved to the mountains of Montana in the spring of 1992. In May 1992 Terry Lott joined the Paleobotany Laboratory to carry on with the operation of the laboratory and help with the research projects of Professor David Dilcher. Much of the new work for Terry has involved becoming acquainted with the computer hardware and software that is now part of the Paleobotany Laboratory. Also he is becoming familiar with the collections of fossil plants and the operation of the FMNH during the past few months. He, Dilcher, Muller and Skog spent 2 weeks under the hot Nebraska and Kansas sun recently collecting a variety of Cretaceous age ferns and early angiosperms including some ancient fossil flowers. Terry is now busy unpacking these recent collections. Also, Rose Young, Nancy Rhodes and George Orbitg are working as assistants in the laboratory helping with numbering of the specimens, organization of the library, photography and sieving fossils.

Paleobotany, continued:

Paleobotany is now an active area and a part of the FMNH. A course in Paleobotany was taught last spring. New collections are being added to the Museum, and new information and ideas are being published about the evolution and history of plants. Many fossil plant specimens in the collection are from Alabama, Mississippi, Georgia, Western Tennessee, Kentucky and Florida. These specimens allow us to better understand the Tertiary distribution of plants in the Southeastern United States. Together with other departments of FMNH, the Museum will further our goal in understanding and recreating Paleoenvironments of Florida and elsewhere.

Florida is an exciting place to collect and we are always pleased to hear from anyone who is interested in fossil plants. If someone finds fossil specimens and would like some help, please give us a call. If the specimens are not plants, we know who to contact to help you. You may call collect at (904)-392-6560 or (904)-392-6585.

DUES ARE DUE THIS WINTER

PLEASE MAIL IN YOUR DUES OR PAY AT ANNUAL MEETING. DUES ARE DELINQUENT ON JANUARY 1, 1992.

(MEMBERS WHOSE DUES ARE DELINQUENT JANUARY 1 ARE DELETED FROM MEMBERSHIP LIST).

FLORIDA PALEONTOLOGICAL SOCIETY, INC.
MEMBERSHIP REGISTRATION

RENEWAL _____

NEW MEMBER _____

NAME _____

MEMB. NO. (FROM LABEL) _____ PHONE: _____ / _____ - _____

ADDRESS: _____

CITY _____ STATE _____ ZIP _____

MEMBERSHIP IN THE SOCIETY IS ANNUAL - JANUARY 1 THROUGH DECEMBER 31

CHECK THE APPROPRIATE CATEGORY:

DUES

- | | | |
|--------------------------|--------------------------------|---------|
| <input type="checkbox"/> | ACTIVE MEMBER | \$10.00 |
| <input type="checkbox"/> | ASSOCIATE (UNDER 18 YEARS) | 5.00 |
| <input type="checkbox"/> | INSTITUTION (NO VOTE) | 10.00 |
| <input type="checkbox"/> | SUBSCRIBER (PUBLICATIONS ONLY) | 10.00 |

SEND THIS FORM WITH YOUR DUES TO: FLORIDA PALEONTOLOGICAL SOCIETY, INC.
FLORIDA MUSEUM OF NATURAL HISTORY
GAINESVILLE, FLORIDA 32611

DATE: _____ SIGNATURE _____

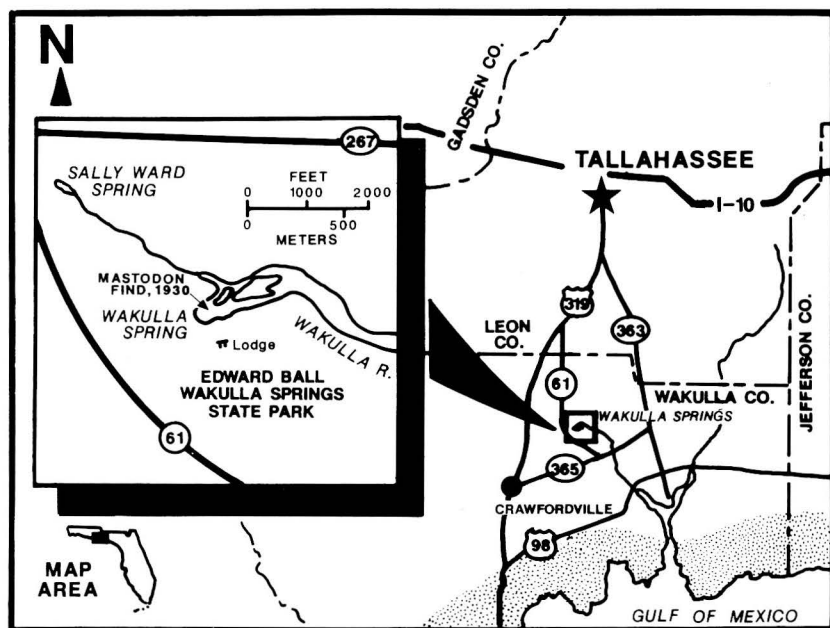
The Wakulla Springs Mastodon

Frank R. Rupert
Florida Geological Survey

Wakulla Springs are situated in a dense birch-magnolia forest in north-central Wakulla County, about 14 miles south of Tallahassee. A large main spring and smaller Sally Ward Spring, located a few hundred yards northwest, collectively comprise Wakulla Springs. Together, they form one of Florida's largest spring systems. Nearly 175,000 gallons of fresh water flow every minute from a cavernous vent in the ancient limestone bedrock 130 feet deep in the main spring. The flow feeds a large spring pool and forms the headwaters of the pristine Wakulla River. For paleontologists, Wakulla Springs hold a special significance in having preserved, along with numerous other vertebrate fossils, what may be Florida's most complete American Mastodon skeleton.

The springs have long attracted both beast and man. Bones of extinct Pleistocene mastodons and various other mammals, known from the spring since the 1800's, suggest the spring may have been a watering hole for the ancient creatures. Abundant water and game probably lured early man to the region. Numerous Paleoindian artifacts have been found in the spring pool and deep within the spring cave as well.

Although the original meaning of the name Wakulla is uncertain, it probably traces its origin to the early Indian inhabitants of the region. Commonly cited translations of the word include "mystery" or "strange waters". Either could be appropriate, for the large spring



Wakulla Springs location map.

pool, lined with moss-shrouded cypress trees, does possess a certain eeriness, especially at dusk. It is not too difficult to imagine the scene 10,000 years earlier as the last of the now extinct Pleistocene mammals crept cautiously to the water's edge for a drink.

The springs have been largely protected by their various owners, contributing to their unspoiled beauty. They were originally part of Seminole Indian land deeded in 1811 to Forbes and Company, a British trading company, as payment for Indian debts to the firm. In 1835, land around the spring was sold off in parcels to individual owners. Through the early part of this century, they were a popular swimming spot, featuring a spring-side restaurant and rowboat rides over the spring. They were operated as a wildlife sanctuary and tourist attraction for much of the last five decades by the late Edward Ball, financier and manager of Alfred I. du Pont's vast north Florida land holdings. He constructed the present Wakulla Springs Lodge, and initiated the famous glass-bottom boat rides. At one point, Ball had plans drawn up to build a "Florida Museum of Natural History" on the spring grounds. The plan never materialized. Upon Ball's death, the springs passed to the Nemours Foundation. In 1986, the springs were sold to the State for management as a State Park.

Since the 1800's, Wakulla Spring has been a source of many fine Pleistocene vertebrate fossils. An unconfirmed legend tells of the finding of dual mastodon skeletons with tusks locked in eternal combat. These skeletons were purportedly lost when the ship carrying them to a northern museum sank in a storm off the Carolinas. Large fossil bones found in the spring around 1895 by Mr. John L. Thomas were on display in a

Tallahassee library for a number of years at the turn of the century. Some of these were donated to the Florida Geological Survey Museum in the 1930's, and are now curated at the Florida Museum of Natural History in Gainesville.

Perhaps the most famous vertebrate find in Wakulla Spring, however, occurred in the fall of 1930. Mr. George Christie, who owned the spring at the time, was well aware of the potential fossil treasures the spring held. As he began renovation work on the spring property in the summer of 1930, Mr. Christie kept a watchful eye for new fossils in the spring pool. In mid-August, while scouting the northern part of the pool, he spotted the characteristic brownish-black color of fossil bone protruding from the bottom sediments 26 feet below him. Using a long-handled rake, Christie successfully recovered a large vertebral process. Later in September, he brought a well-preserved right lower jaw and a portion of one tusk to the surface from the same area of the spring pool. It soon became clear that the buried bones, scattered over an area of the spring pool in water 20 to 26 feet deep, might comprise a complete fossil skeleton. Unfortunately, the use of long-handled rakes, tongs, and free-diving were ineffective in uncovering the larger and more deeply-buried bones. Mr. Christie contacted Dr. Herman Gunter, then State Geologist, for assistance.

Gunter enlisted the help of the City of Tallahassee and the Floridin Company of Quincy, who provided supplies and equipment for the construction of a raft to anchor above the fossil site and serve as a working platform. The chief engineer at the Everglades Drainage District in southern Florida shipped a large suction pump to the spring for excavating the buried bones. This pump was apparently used in conjunction with a large hose in much the same fashion as modern underwater archeological and treasure-hunting pumps, which literally suck away the bottom sediments from around sunken artifacts.

The excavation team, now comprised of Christie, Gunter, Florida Geological Survey paleontologists Clarence Simpson and George Ponton, and various helpers, managed to obtain a diving helmet and manual air pump rig to operate off the raft. Lines were tied to the bones as they were unearthed by the diver, and hoisted up to the raft. Using this rather crude outfit, much of the remainder of a nearly complete American Mastodon (*Mammuth americanum*) skeleton was recovered.

The mastodon bones were donated by George Christie to the Florida Geological Survey Museum. Here, the skeleton was mounted during the 1930's, and served as the centerpiece for the museum. When the Survey moved to its present quarters (minus room for a museum) in the mid-1950's, the mastodon was disassembled and placed in storage for nearly 20 years. In 1975, the mastodon was donated to the newly-opened Museum of Florida History in downtown Tallahassee, where today it is an impressive part of the pre-history collection. Museum employees have named it "Herman" in honor of former State Geologist Herman Gunter, who was instrumental in its recovery from Wakulla Spring.

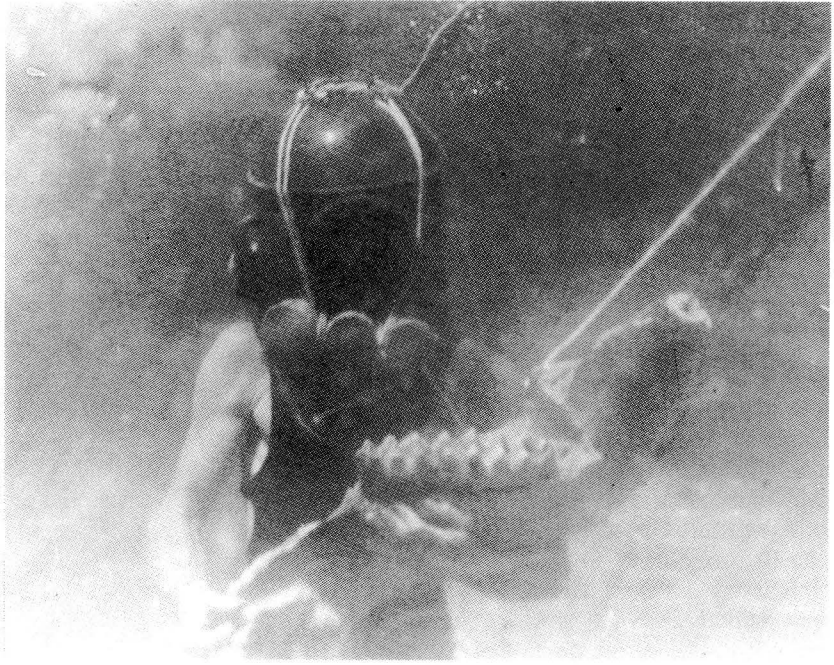
Through the years after the Mastodon find, Wakulla Springs continued to yield fascinating fossil discoveries. In the mid-1950's, a team of local SCUBA divers explored some 1,100 feet into the spring cave, and discovered an extensive fossil mammal bone bed inside the cave mouth. Among the bones were additional mastodon, as well as mammoth, tapir, sloth, giant armadillo, camel, horse, and bison. Also found were numerous



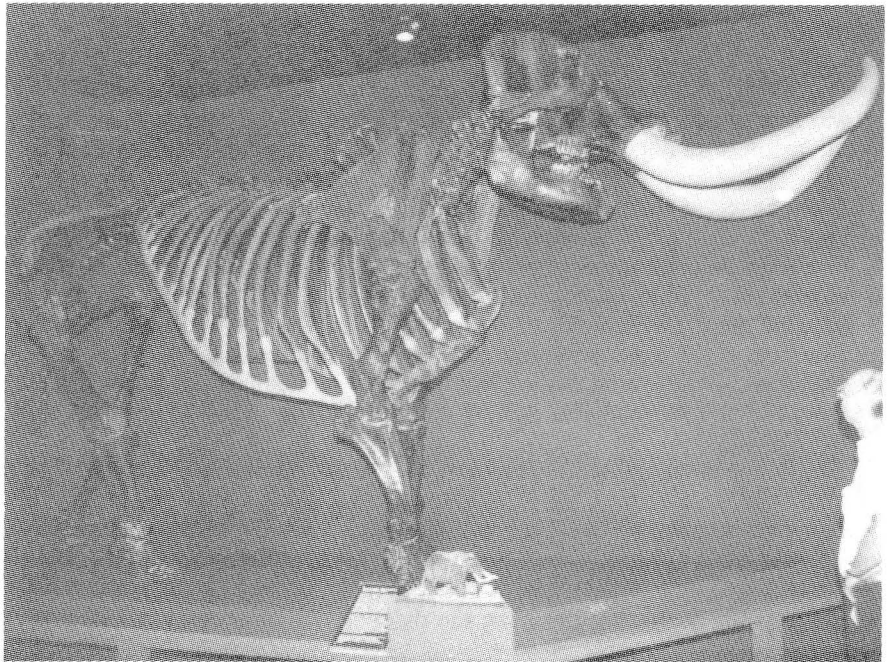
Wakulla Mastodon recovery, fall 1930. Workers untie a lower mandible sent up by diver. Note two-cylinder manual airpump, at right, which supplied hard-hat diver (FGS photo archives).

paleoindian projectile points, artifacts, and charred wood. This led to speculation that indians may have lived in the Wakulla Spring cave during low-water periods of the Late Pleistocene.

Today, Wakulla Springs still hold many mysteries as well as numerous fossil bones. During an extensive exploration of the spring cave system in late 1987, divers observed fossil bone beds extending nearly 1000 feet back into the massive limestone conduits feeding the spring. These deposits pose some fascinating questions. How did the bones get there? What kinds of animals are they from? Did the spring once receive the flow of a sinking stream which flushed the bones back into the caves thousands of years ago? Or was the spring cave dry during Pleistocene sea level lowstands, allowing animals to roam in the caves? For now, these questions must remain unanswered. The spring is protected within the confines of Wakulla Springs State Park, and is off limits to all but specially-permitted researchers. In addition, many of its fossil treasures lie in water over 190 feet deep, accessible only to highly-trained divers and requiring lengthy decompression schedules. Perhaps someday, cave-diving paleontologists will be able to excavate selected bone beds within the spring cave and help to answer some of the many questions about these truly "strange waters".



Hard hat diver with mastodon mandible (FGS photo archives).



The Wakulla Springs mastodon on display today at the Museum of Florida History in Tallahassee (photo courtesy of the Museum of Florida History).

Minutes of Board of Directors Meeting FPS 3/2/91

The meeting was called to order by President William Webster at 11:15 AM. Attending were:

William Webster, President
Roger Portell, Vice President
Kevin Schindler, Treasurer
Eric Taylor, Secretary
Douglas Jones, Museum Representative to the Society
Don Lorenzo, Past President
Bruce MacFadden, Member
Marilyn Whetzel, Member
Rudi Johnson, Member
David Webb, Resident Agent
Joyce Webster, Guest
Anita Brown, Guest
Ralph "Tony" Estevez, Guest
Frank Rupert, FGS

Newly appointed Secretary Eric Taylor was introduced to the Board.

Kevin Schindler gave the treasurer's report which was adopted without dissent. The minutes of the last board meeting were accepted as published.

Roger Portell brought up the necessity to clear all copy-written articles with the holder prior to publication. It was moved and seconded to insert a notice in all of the Society's non-book publications giving permission to use the material in any form as long as the Society was given credit. Passed.

A discussion of the status and publishing costs for the Florida Fossil Vertebrates book being written by Richard Hurlbert. After comparison, it was moved, seconded and passed to accept the bid of Arcata Graphics subject to clarification of reprint and photograph costs. It was developed that approximately \$20-25,000 would be required to pay for the finishing touches and to have the first 3000 copies printed. An attempt to obtain as many advance sales as possible, to obtain sponsors for the book and possibly to arrange to have one or several members of the Society finance any balance was discussed. A committee to solicit funds was formed. Members were Eric Taylor, Anita Brown, William Webster and (subject to his acceptance) Clifford Jeremiah. It is intended that the book be ready for sale by the Fall meeting.

The Board having only 11 members, Mr. Frank Rupert was appointed to the vacant position without dissent.

The Fall meeting will be held in Tallahassee. Emily Vokes will be the guest speaker and a field trip to the Chipola River/10 mile Creek area will be held. A side trip to Florida Caverns will be organized for Sunday.

There being no further business, the meeting was adjourned at 1:02 PM.

Respectfully submitted,

Eric G. Taylor
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 cooperation 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 IX

- 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 \$10.00 for Full Membership (persons over age 18) and Institutional Subscriptions. Persons interested in FPS membership need only send their names, addresses, and appropriate dues to the Secretary, Florida Paleontological Society, Inc., at the address inside the front cover. Please make checks payable to the FPS. Members receive a membership card, the FPS newsletter, the Papers in Florida Paleontology, 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.