

Florida Paleontological Society, Inc.
Newsletter



**2000 Dues
are past-due**
*See page 11
For renewal form*

Volume 17 Number 1

Winter 2000

FLORIDA PALEONTOLOGICAL SOCIETY, INC

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Please Address: Secretary, Florida Paleontological Society, Inc.
Florida Museum of Natural History, P.O. Box 117800
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First Announcement
Florida Paleontological Society Fall Meeting
(Not a Paleofest!!)
Saturday November 4, 2000
Gainesville, Florida
Hosted by the Florida Museum of Natural History

- Tour the collection ranges.
- Presentations about Vertebrate and Invertebrate Paleontology.
- Dinner to be catered at Powell Hall, auction to be held after dinner.
- View the first of our permanent exhibits: Northwest Florida Waterways and Wildlife.
- View the travelling exhibit: Manatees: Edge of Extinction.

Accommodations & Costs

Group rates available at the Sheraton Hotel for \$99/night and the University Center Hotel for \$65/night for a double room. Many other motel options as well.

- Field trip on Sunday to Haile Quarry to collect vertebrate and invertebrate fossils.

Please RSVP on the following so we can begin planning:

1. Attending the meeting
2. Attending the dinner and auction
3. Attending the field trip
4. Attending tour of the fossil ranges Vertebrate, Invertebrate, Paleobotany

Indicate how many will be coming and if you are interested in receiving lodging information.

Email : FPS@flmnh.ufl.edu or write George Hecht at the FPS address.

Schedule and map to follow soon. Hope see all of you here!!



FPS News Notes

Gary S. Morgan Student Research Award Winner Announced...

The award for 2000 goes to James Funderburk, a graduate student in the Department of Geology at the University of South Florida. Each year a committee of FPS members selects a recipient for this award from a pool of university student applicants. The \$500 award is presented to an undergraduate or graduate who is currently studying some aspect of Florida paleontology. The following is a synopsis of Mr. Funderburk's project.

Modern Variation in Predation Intensity: Constraints and Implications for Escalation.

by James Funderburk

Summary

This study proposes to directly test the escalation hypothesis offered by Vermeij (1987). In his extensive study of escalation, Vermeij concluded that evolutionary rates in tropical taxa are higher due to increased predatory pressures found at these lower latitudes. This project will use the abundance of bored, or drilled mollusks found in modern coastal littoral deposits as a proxy for the frequency of predation. The use of this technique is often used in developing paleoecologic interaction of predator and prey (i.e. Vermeij and Dudley, 1982). These data will be analyzed both spatially and taxonomically to expose patterns and trends in predation intensity as seen in a single time plane. The primary importance of this study is to develop a modern baseline to determine if these generalizations fit a robust data set. In addition, the results will allow paleontologic observations from the geologic past to be placed in paleoecological context, constraining the role of biotic interactions as cause for ecological change.

Project Description

Escalation, or the evolutionary "arms-race", which produces increased ornamentation and thicker shells in mollusks, has been emphasized as a dominant force in the evolution of life by Vermeij (1987). Drawing from the previous works of Vermeij and Dudley (1982) and Taylor and Taylor (1977), Vermeij (1987) concluded that the frequency of predation increases towards the lower latitudes. Therefore, in response to the increased interplay between predators and prey at increasing lower latitude, escalation should have resulted in more rapid evolutionary rates and potentially greater diversification in tropical habitats.

Review of the previous works used by Vermeij (1987) to conclude that tropical fauna evolve "faster and better" produces limited spatial and temporal data points, and the hypothesis needs to be tested. I plan to test the hypothesis that predation increases at lower latitudes by using bore holes found in mollusks in modern beach deposits as a proxy for predation intensity. These single data points will be analyzed along latitudinal, longitudinal, and provincial gradients. In addition, escalation in marine mollusks will be examined by measuring and comparing predation at the species level in single sample populations.

The primary importance of this study is that it will provide a modern baseline for predation frequency in marine mollusks. This baseline will determine whether the generalizations drawn by Vermeij (1987) are supported by occurrences in the present and will allow paleontologic observations in the geologic past to be placed in an ecological context. Proposed paleoecologic relationships between predator and prey are often times based on data from a single locality (i.e. Vermeij and Dudley, 1982). By examining trends in predation intensity along one fixed time plane and applying them to the fossil record, we can better reconstruct these paleoecological interrelationships.

In addition, testing the hypothesis of escalation has severe consequences in how the mechanism of evolution works. If the hypothesis is true and organisms evolve simultaneously, then the argument for increased evolutionary rates in both predator and prey in these areas of higher predation frequency must be considered. If the hypothesis

is false, then this struggle between predator and prey does not produce an "arms-war" as Vermeij (1987) suggests, but rather than competition for resources or environmental change may drive adaptive measures in organisms. Furthermore, validation of Vermeij's hypothesis would buttress evolutionary arguments such as Van Valen's (1973) "Red Queen Hypothesis", where species are "running in place" to keep up in an ever changing environment.

Predation, as Vermeij (1987) states, " may rank as a close second to competition [in the ranking of selective agencies]." In addition, he also states that these hypotheses of escalation and improvement of the organism through time should be evaluated by both identifiable adaptations and an individual's "effectiveness" in coping with negative changes or stresses. Vermeij (1987) defines effectiveness as " the probability that the individual survives or prevails in an encounter with a hazard." I am proposing to test the validity of the arguments of escalation by looking at both the spatial and taxonomic variability in predation. This will be accomplished by measuring the "effectiveness" of marine mollusks to cope with the intense pressures of predation by marine boring gastropods.

Materials and Methods:

Predation intensity is easily recognized and measured in bivalves that have been bored, or drilled, by marine gastropods. Predation by boring has been well documented in the geologic record and extends as far back as the Ordovician (Sohl, 1969). Because they are the best preserved of predation signatures in the fossil record, the characteristic drilled hole has been used as a proxy for frequency of predation frequency through time. Testing the escalation theory will be accomplished by comparing measurements in spatial variation in predation intensity, as well as how the intensity varies taxonomically in modern mollusks. Predation intensity will be measured using percent bored versus percent unbored in whole or pristine shells (shells with > 95 percent of original material). These data will be compiled by analyzing samples from dense molluscan assemblages found in the littoral zone on sandy beaches. The time averaged nature of these coastal deposits will resemble that found in the geologic record, and dating of the materials found at several of the sites will be completed using Amino Acid Racemization techniques (in house) to confirm this hypothesis. Latitudinal gradients from approximately 18 to 40 degrees North will be sampled to ensure continuity and completeness of the spatial trends. This span includes the eastern coast of the United States from New Jersey to Florida to southern Texas, southern Bahamas, Turks and Caicos, Dominican Republic, and Belize.

Sampling will be approximately every 50 to 100 miles, producing a sampling density that will show local as well as regional trends and patterns. Sampling along the coast of the U.S. may be at closer intervals based on accessibility. This intense sampling scheme is needed to test the escalation hypothesis. After sampling and field investigation, a detailed analysis will be undertaken to determine possible trends and patterns in predation intensity.

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News from the Invertebrate Paleontology Division...

Doug Jones continues to serve as Director of the FLMNH. Unfortunately the responsibilities of this position don't allow as much time for research or paleontological fieldwork as Doug would like. Nevertheless, he continues to remain as active as possible and practice as much paleontology as time permits. This past year Doug completed an isotopic study of hatching depth in the chambered Nautilus from Fiji with Neil Landman of the American Museum in New York and Richard Davis from Cincinnati. The results will be published soon in *The Veliger*.

In the zooarchaeological realm, Doug continues to work with **Irv Quitmyer** at the FLMNH on several projects involving mollusk exploitation by ancient peoples in the southeastern U.S. They had one paper published this past year and another is almost completed and ready for submission. With Warren Allmon of the Paleontological Research Institution, Doug is continuing studies of turritellid gastropod shell records from Chilean localities and elsewhere.

Finally, Doug has been active on the editorial boards of several scientific journals including, *Palaios*, *Historical Biology*, *Geology*, and *The Nautilus*. Along with **Roger Portell**, Doug is also involved in developing the new Fossil Hall under construction at Powell Hall (Exhibits and Public Programs facility). Last year Doug made a trip to Morocco with **Bruce MacFadden** to obtain some fossil material for the exhibit and earlier in the year traveled to Ecuador to collect some fossil mollusks for research purposes.

Each year, for the past ten years, Roger has conducted two to three weeks of fieldwork in Jamaica. This past March, he, Barbara, Reed, and Jim Toomey along with Daryl Domning of Howard University and Brian Beatty (a former UF undergraduate student now studying under Daryl) worked the Seven Rivers fossil site discovered in 1990 by Roger and former UF graduate student Jon Bryan. Here they collected numerous bones of a yet unnamed early Eocene seacow from the Chapelton Formation. Some of these bones can currently be seen in the traveling exhibit at Powell Hall called "Manatees: The Edge of Extinction". The exhibit is an interactive exhibit that tells the full story of manatees (and the Sirenia) from their return to the sea 50 million years ago to their subsequent spread around the globe. Also in Jamaica, Roger and the Toomey's collected crabs, crinoids, brachiopods, and deep-water shark teeth from the early Miocene Montpelier Formation. Recently, Roger co-authored an article with Stephen Donovan (British Museum of Natural History) entitled "Incipient 'Crystal Apples' from the Miocene of Jamaica". The paper was published in the *Caribbean Journal of Science* and discusses the unique preservation of rare echinoid tests within the interstices of massive corals, which have been recrystallized to calcite. These corals liberated calcium carbonate into ground water that subsequently precipitated out in the cavities both within and around the echinoid tests. Currently, Roger and Steve are monographing all Miocene echinoderms known from Jamaica.

This past April Roger, along with **Craig Oyen**, **Kendall Fountain**, and **Guerry McClellan**, published their research results on the "Occurrence of Plio-Pleistocene phosphatized macro-invertebrates from the upper west Florida Slope, eastern Gulf of Mexico" in the *Bulletin of the Florida Museum of Natural History*. This paper discusses the numerous phosphatized internal molds of brachiopods, corals, mollusks, annelids, and echinoderms from dredge samples collected approximately 250 kilometers west of Tampa at depths of approximately 500 meters. Additionally, Roger continues his role as Secretary to the southeastern Section of the Paleontological Society and over the last year, he took on the task of overseeing the day-to-day dismantlement of the old exhibits at Dickinson Hall. Many of the exhibit components were recycled to a number of museums, state parks, and nature centers around

the state. Renovations will begin soon at Dickinson Hall and will include new collection storage space, as well as, four seminar rooms, and new offices for some of our staff.

IP staffer, **Kathy Weedman** has been working in the IP Division since 1998. She completed her Ph.D. in Anthropology from the University of Florida in May 2000. In addition, she spent the summer in Ethiopia, where she participated in a World Bank project to mitigate cultural resources associated with the construction of a dam at Gilgil Gibe. This fall, Kathy will continue to help with the curation of the IP collection, as well as construct a new web page for IP. **George Hecht** also started working in the IP Division in 1998. George received his master's from the University of Ohio in 1991. His thesis examined the paleobiology of Pennsylvanian age bactritoid cephalopods. Currently, his primary duty with the IP collection is re-curating ostracodes in the Richard A. Edwards microfossil collection. The collection represents 40 years of collecting and is estimated to contain over 10,000 specimens (1,000 to 3,000 lots). George also works identifying ostracodes from the Eocene and Miocene of Jamaica and Recent specimens from the Gulf of Mexico. In addition, he participates in scuba diving expeditions to collect Recent echinoderm, decapod, and ostracode specimens.

IP graduate students **Craig Oyen** and **Jeff Agnew** are steadily making progress toward completion of their advanced degrees. Both should be finished by year-end. Craig's dissertation is titled: "Biostratigraphy, diversity patterns, and evolution of Cenozoic echinoderms from Florida". Jeff is currently wrapping-up his Masters Degree while beginning his Doctoral degree at Arizona State University. This year Jeff, along with Roger and Doug, presented a paper, "Concentrated decapod fragments from a Plio-Pleistocene molluscan sequence of northern Okeechobee County, Florida", at the Southeastern Geological Society of America meeting in Charleston, South Carolina. IP undergraduate student **Ruby Kehayias** is currently studying predatory drill holes in the gastropod of *Turbo rhexogrammicus* and completed a senior Honors Thesis related to the predator-prey relationship of *T. rhexogrammicus* and muricid and naticid gastropods from southern Florida. She is currently comparing the differences and similarities in predation intensity and site selectivity characteristics of muricid and naticid drill holes. Ruby, along with Roger and Doug, also presented the preliminary results of this research at the Southeastern Geological Society of America meeting in Charleston, South Carolina.

So far this year, two substantial collections have been donated to the IP Division. These were made by Mrs. **Susan Stephens** of Sanibel, FL and Mrs. **Jinny Mead** of Punta Gorda, FL. Mrs. Stephens donated her prized fossil muricid gastropod collection that consisted of approximately 400 lots (over 1500 specimens). Mrs. Mead donated her approximately 31,000 specimens of Cenozoic mollusks from Florida. Both gifts were scientifically valuable additions to the holdings of the FLMNH. Most of the specimens were accompanied by high-quality data, including locality, date collected, and collector.

News from the Vertebrate Paleontology Division...

So far 2000 has been a good year for vertebrate paleontology in Florida, and it is not over yet. There were a number of personnel changes at the FLMNH. Two of our long-time students, **Matt Mihlbachler** and **Brian Beatty**, graduated and moved on to continue their education at Columbia University and Howard University, respectively. **Phil Digirolomo** returned to continue his work on the ecology of the dire wolves and associated fauna of the late Pleistocene Cutler Site in Dade County. **Penny Higgins** joined us from the University of Wyoming as a post-doctoral research associate. She will be working with Bruce MacFadden on using isotopes of carbon, nitrogen, and oxygen preserved in fossil tooth enamel to study the paleoecology and diets of sirenians and horses. The vacant position of VP collections manager was filled in July by **Richard Hulbert**, who left Georgia Southern University to return to Gainesville. Long-term FPS members may remember that Richard got his Ph.D. from UF in the late 1980s, and he has maintained a close working relationship with the museum ever since, including participating in both PaleoFests and giving talks at several FPS annual meetings. Richard plans to greatly increase the VP division's efforts at fieldwork, especially in cooperative digs with outside volunteers, including FPS members. Richard will be happy to provide advice concerning collecting or help you identify your fossils; see our web site for details: http://www.flmnh.ufl.edu/natsci/vertpaleo/fos_id_svc.htm.

On the research front, a number of contributions on Florida VP appeared recently, both from FLMNH personnel and outside researcher using our collection. Among the most important of the latter is the major revision of the borophagine canids by X. Wang, R. Tedford, and B. Taylor (*Bulletin of the American Museum of Natural History*, No. 243), that resulted in numerous name changes for many Florida species and recognition of several new species in the state. **Dave Webb** was happy to see that the omnivorous fox-like genus *Carpocyon* he named from the Bone Valley in 1969 survived intact! Gerardo de Iuliis (Univ. Toronto) and Castor Cartelle (Univ. Fed. Minas Gerais, Brazil) described a new species of the giant ground sloth *Eremotherium*, *E. eomigrans*, from the late Pliocene and early Pleistocene of Florida. While the type locality is the bountiful Haile 7C sample, it was apparently wide-spread throughout the state, with numerous records from southwest Florida as well as the northern peninsula. *Eremotherium eomigrans* differs from the well-known late Pleistocene *Eremotherium laurillardii* (represented by the fine mounted skeleton at the Daytona Beach Museum of Arts and Sciences) by having four claws instead of two on its hand and differences in the shape of some of its wrist bones.

Finally, a new genus and species of saber-toothed cat, *Xenosmilus hodsonae*, was added to the fossil record of Florida this year by L. Martin (Univ. Kansas) and co-authors. It was formerly regarded as a new species of *Homotherium*, but according to its describers the new lion-sized cat differs from all other saber-cats by combining short, broad sabers and stocky, robust limbs. They regard it as "the most formidable feline predator of its time." Its age is early Pleistocene. Although not yet published, Gary Morgan's work on Florida's extensive and important early Miocene bat fauna is now in high gear and several reports have been presented at scientific meetings. Gary visited the FLMNH collection in mid-summer to work on the bats and on a collaborative project with Bruce MacFadden on a new late Oligocene oreodont from northern Florida. Lastly, many UF specimens are featured in a new children's paleo book, *Ice Age Giants of the South*, written by J. Cutchins and G. Johnston of Atlanta, and published by Pineapple Press. The staff here greatly recommends it for the younger set of fossil enthusiasts as a great way to introduce them to Florida VP.

Dave Webb's paper describing the Bone Valley deer, the oldest North American member of the deer family Cervidae, appeared this year in an edited volume of papers titled "Antelopes, Deer, and Relatives, Fossil Record, Behavioral Ecology, Systematics, and Conservation", published by Yale University Press and edited by E. Vrba and G. Schaller (115 pages, b/w + 10 colorplates, 7 X 10, Cloth ISBN 0-300-08142-1). In its fourth chapter, "Evolutionary History of New World Cervidae", pages 38 through 64, Dave named the new genus and species *Eocoileus gentryorum*. So all of you owning specimens of the early Pliocene deer from the Bone Valley now know what its name is. The volume may be ordered for \$65 from: Yale University Press, P.O. Box 209040, New Haven, CT 06520-9040, main phone number: 203/432-0960; website: <http://www.yale.edu/yup/books/081421.htm>.

In addition to wrapping up work on the latest Pleistocene-early Holocene Aucilla River project, Dave also worked on completing a paper with B. Beatty on *Prosynthetoceras*, with R. Hulbert and N. Czaplewski on the peculiar Bone Valley horses *Pseudhipparion simpsoni*, and with R. Hulbert on a review of the land mammals of the lower Bone Valley. Glynn Hayes, a former UF geology graduate student now at the University of Nebraska, published a review of the late Oligocene Brooksville 2 (Hernando County) mammals in the *Bulletin of the Florida Museum of Natural History* (2000; Vol. 43, No. 1) and described a number of new species including insectivores, mustelids, canids, and rodents. Richard Hulbert made the last revisions and corrections to his forthcoming book, *The Fossil Vertebrates of Florida*, just before leaving Georgia, and corrected the page proofs in September. The book is currently scheduled to be published in January, 2001.

Gina Gould and her staff at Powell Hall are working hard at making the new fossil hall a reality. Many of our best specimens are now or soon will be in the process of being mounted for display, including several cats, bears, dogs, dugongs, tapir, giant sloth, peccary, birds, turtles, alligators, and more. Those with internet access can check out the progress at <http://www.flmnh.ufl.edu/fossilhall/default.htm>. Gina has selected a number of interesting poses for many of the new mounts. The web site of the VP collections in Dickinson Hall, <http://www.flmnh.ufl.edu/natsci/vertpaleo/vertpaleo.htm>, will also see many additions and improvements over the next 6 to 10 months, so check back frequently.

HAILE FOSSIL SITE VOLUNTEER APPLICATION FORM

Please print or type answers; use one form per applicant, except members of a single family can use one form if they all wish to work together on the same day(s). All applicants must be 18 or older (17 if full-time university student).

Name(s) _____

Street Address _____

City _____ State _____ Zip _____

Daytime Phone (____) _____ Nighttime phone (____) _____

E-mail address _____

Check those of the following that apply to you:

- Museum Associate, Florida Museum of Natural History
- Member, Florida Paleontology Society
- Member, Pony Express
- University of Florida Faculty or Staff University of Florida Student
- Faculty, Staff, or Student at another university or college (list name below)
- Member, other fossil club(s) or organization(s) (list names below)

How many total days would you like to volunteer for? ____ (You can always volunteer for more at a later date.)

List day(s) from Oct. 5 to Nov. 19 when you would like to volunteer (list them in order of preference, from most preferred to least). Put an **F** after dates you want to work the full day, an **M** after dates in the morning only, and an **A** after dates in the afternoon only (if you do not we will assume you are volunteering for the entire day). We will notify you when schedules have been set (about 1-2 weeks before scheduled day to dig). Indicate whether you must be assigned consecutive days. It is recommended that you list alternate dates, if possible, in case we have no more positions on your first choice(s).

The undersigned agrees to follow all rules and instructions of the Florida Museum of Natural History (FLMNH) staff at the fossil site, to the stipulation that all fossil specimens they collect at the Haile site are the property of the FLMNH, to sign a waiver of liability before entering the quarry, and affirms that their age is 18 years or more (or 17 if a full-time university student).

Signed _____ Date _____

Return to: Richard Hulbert, Florida Museum of Natural History, P.O. Box 117800, Gainesville, FL 32611

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NEW BOOK HELPS CHILDREN UNCOVER SOUTHERN FOSSILS

Ice Age Giants of the South by Judy Cutchins and Ginny Johnston is now available from Pineapple Press, Inc.

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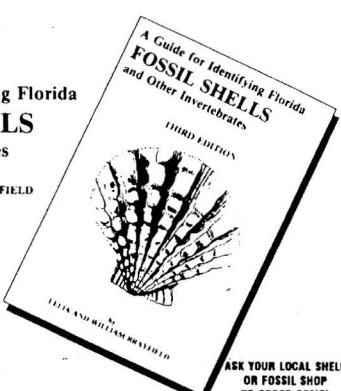
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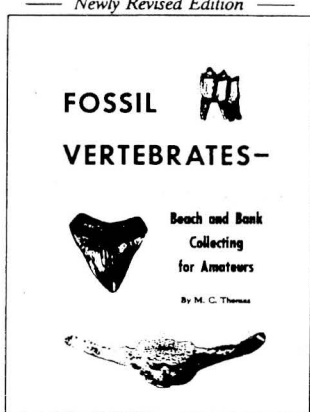
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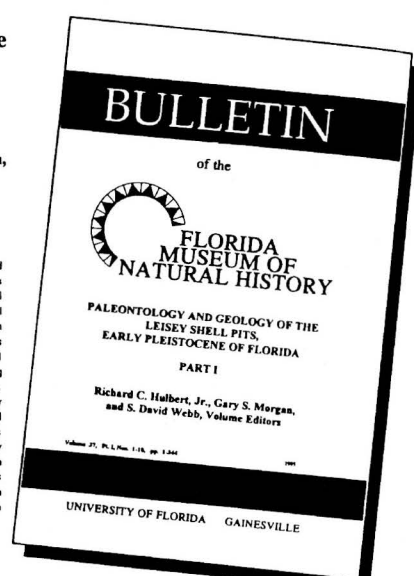
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Paleontology and Geology of the Leisey Shell Pits, Early Pleistocene of Florida

Volume Editors:
Richard C. Hulbert, Jr., Gary S. Morgan, and S. David Webb

Bulletin Editors:
F. Wayne King and Rhoda J. Bryant



For the last two decades the Leisey Shell Corporation has operated several pits along Tampa Bay. Draglines unearthed numerous invertebrate fossils and, occasionally, vertebrate fossils. The spoil piles and quarry walls were periodically explored by several avocational paleontologists. In 1983 a tremendous concentration of fossil bones was exposed. Quarrying in the area ceased, thanks to the cooperation of the owner, C.E. "Bud" Leisey, Jr., and manager, Eric Hunter. In 1984, after meetings among representatives of the Florida Museum of Natural History (FLMNH), Leisey Shell Corporation and avocational paleontologists, a major operation was planned. The owners subsequently transferred ownership of the fossils to FLMNH. That Spring major excavations resumed as a cooperative effort among the FLMNH, the Tampa Bay Mineral and Science Club, and the Leisey Shell Corporation. The dig has attracted the attention of local, state, and national news media, including a spot on NBC's "Today Show", an article in Newsweek magazine, and a lengthy Sunday feature in the Tampa Tribune.

Publication Date: March 1995

This volume is printed in two parts, including twenty papers which cover birds, fishes, invertebrates, mammals, plants, and reptiles and amphibians, as well as the taphonomy of terrestrial mammals and geology of this Early Pleistocene site. Several new species are described.

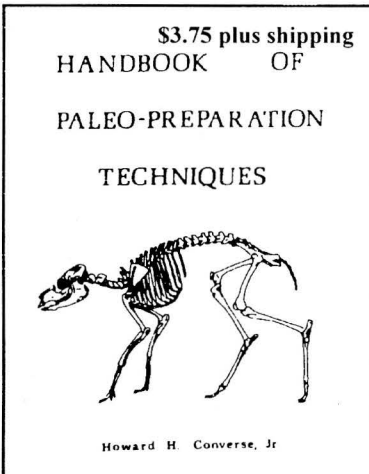
Bibliographic Data

1995 Volume 37, Part I	352 pages	21 halftones	40 line diagrams	numerous tables
1995 Volume 37, Part II	324 pages	40 halftones	26 line diagrams	numerous tables

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Florida Paleontological Society
Florida Museum of Natural History, Powell Hall
University of Florida
Gainesville, FL 32601



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 _____ Member Number (From label) _____

Name _____

Address _____

City _____ State _____ Zip Code _____

Email address _____

TYPE OF MEMBERSHIP

- | | |
|---------------------------------------|--------------------------------------|
| 1. INDIVIDUAL ACTIVE (\$15.00)- _____ | 2. SUBSCRIBER (\$15.00) _____ |
| 3. INSTITUTIONAL (\$15.00) _____ | 4. GIFT (Mark Type) _____ |
| 5. FAMILY (3 or more. \$25.00) _____ | 6. COUPLES (\$20.00) _____ |
| 7. SUSTAINING (\$50.00) _____ | 8. ASSOCIATE (Under 18 \$5.00) _____ |

FAMILY AND COUPLES PLEASE LIST NAMES OF ALL APPLICANTS IF NEW. PLEASE COMPLETE PERSONAL FACT SHEET BELOW IF NEW OR CHANGES HAVE OCCURRED SINCE PREVIOUS YEAR.

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:

<u>VERTEBRATE</u>	<u>INVERTEBRATE</u>	<u>BOTANY</u>	<u>MICRO</u>
PLEISTOCENE _____	_____	_____	_____
PLIOCENE _____	_____	_____	_____
MIOCENE _____	_____	_____	_____
OLIGOCENE _____	_____	_____	_____
EARLIER _____	_____	_____	_____

4. LIST ANY PREFERRED TYPES (Horses, Sloths, Echinoids 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, PREPARATION. 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.

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 \$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. A Sustaining membership is also available for \$50. 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 slews 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.