

Florida Paleontological Society , Inc.

Newsletter



Volume 7 Number 4 Fall Quarter 1990

FLORIDA PALEONTOLOGICAL SOCIETY, INC.

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MESSAGE FROM THE PRESIDENT

You know the old saying: "Time flies when you're having fun." Sure must have been having a lot of fun this past year, as it seems like only yesterday that I was driving over to Gainesville for last year's fall meeting - wondering what to say when Bob called me up to the podium.

As stated in my first "message" in last winter's newsletter at the end of this year I would like to look back and see something accomplished. Well, I'm looking! Has something been accomplished? The answer is yes, no, and maybe. The spring meeting was a smashing success, with practically all credit going to Rudi and others of the Tampa group. The call for quarterly board meetings, while encouraged by almost everyone with whom it was discussed as a proposal, was not so well thought of as a reality - the first one failed to have a quorum, even though a date was agreed upon and posted well in advance - and a formal agenda provided to all officers and board members. Some groundwork has been laid for the traveling exhibit and the incoming president will now get to take that *Hexameryx* by the horns.

It has been an interesting and educational year, for those who helped make it so - Thanks!

Don Lorenzo
FPS President

Florida Paleontological Society Annual Meeting

OCTOBER 27TH: MEET AT MCCARTY AUDITORIUM, GROUND LEVEL, 100 YDS EAST
OF STUDENT UNION (WHERE FPS USUALLY MEETS) AGENDA

9:00	INTRODUCTION	DR. DOUG JONES
9:15	EVIDENCE OF FEEDING ON PLIOCENE WHALES BY <i>Carcharodon megalodon</i>	MR. JEREMY SETTY
9:45	RELATIONSHIPS OF FOSSIL AND LIVING DEER IN THE NEW WORLD	DR. DAVE WEBB
10:15	COFFEE BREAK	
10:30	MULTIDISCIPLINARY STRATIGRAPHIC STUDIES OF THE SARASOTA PIT (APAC)	DR. DOUG JONES
11:00	FPS BUSINESS MEETING	
12:00	LUNCH AT STUDENT UNION (FPS DIRECTOR'S MEET)	
1:00	EXHIBITS AT MUSEUM (TOP FLOOR)	FLORIDA MUSEUM

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Saturday, October 27, 1990
at
The University of Florida
and
The Florida Museum of
Natural History
9:00 a.m. - 5:00 p.m.

RANCHOLABREAN FOSSIL SITE DISCOVERED

Two men diving in the St. Johns River system spotted an eight-foot mammoth tusk that has led Florida paleontologists to one of the richest finds ever of Ice Age fossils in Central Florida.

Don Brunning and Danny Masters' discovery has led paleontologists to a tiny tundra rodent (*Microtus pennsylvanicus*) and dozens of other fossil species.

David Webb estimates the fossils date from the late Pleistocene epoch, between 20,000 and 30,000 years ago. American Mastodon, a short-limbed llama also found in South America, and bison are among the many animal remains found in the underwater peat bog.

"This is a major discovery because it is a very concentrated sample of Ice Age fossils -- including some partially articulated skeletons, -- that are extraordinarily well-preserved," Webb said. "We believe they will reveal much about the full glacial climate and environment of Central Florida."

This site is the southernmost point at which the rodent *Microtus pennsylvanicus* has been found. Finding this kind of tundra rodent in a swampy peat deposit in Seminole County indicates that this region had rather cold and dry winters," he said.

The intact mammoth tusks are particularly important because they generally don't preserve well, usually fragmenting by the time they are found. Besides being well-preserved, these tusks are a valuable source of history. They resemble a tree trunk in that they include growth rings, which can reveal particular times of hardship, such as poor nutrition, and reason of death.

Don Brunning and Danny Masters, who found the tusks in August while looking for new places to dive, recently brought the fossils to the Florida Museum of Natural History. Paleontologists there are studying them for clues about the fauna of the area.

Amateurs play a great role in unearthing fossils in Florida. Scientific research benefits from new discoveries constantly being made by Florida's amateur collectors.

Submitted by: Cathy Keen, Gainesville.
UF Information services



Danny Masters displays some of the fossils from the new site.

FLORIDA MUSEUM PALEONTOLOGISTS ADDRESS
ST. AUGUSTINE BEACH ROTARY CLUB

A state science fair winner taught the St. Augustine Beach Rotary Club about feeding behaviour in the world's largest predator, *Carcharodon megalodon*. On August 1 at their Wednesday breakfast meeting the rotarians from this coastal town sat enthralled as Jeremy Setty told how his careful analyses of cut marks on diverse extinct whale skeletons showed that super-giant sharks, with serrations and tooth-spacing exactly like those of *Carcharodon* had cut up and presumably killed many whales. Undeterred by the fact that his subjects had been dead from five to fifteen million years, he described how the huge teeth cut through masses of flesh and blubber and still left deep gashes in the bones of baleen and other large Miocene and Pliocene whales. Microscopic analysis of the cut marks, including occasional chips of serrate tooth edges, showed the curvature and detailed edge features of the shark teeth that did the damage.

David Webb, Curator of Fossil Vertebrates, led off the Florida Museum's presentation with a brief review of the geologic history of the Bone Valley District. He noted that the rich Miocene embayment was an ideal place for studies of Miocene sharks and whales.

Jeremy Setty's research was conducted at the Florida Museum of Natural History during his senior year at North Marion High School north of Ocala. When he presented his research project in the State of Florida's Science Fair Competition it received first place in the Division of Earth and Planetary Science. News of Setty's win prompted the St. Augustine group's invitation to Setty and Webb.

NEW EVIDENCE OF A LAND ANCESTOR FOR WHALES

A team of American paleontologists discovered the first evidence of whales with hind limbs and foot bones 95 miles southwest of Cairo in the Zeuglodon Valley, once part of the ancient Tethys Sea.

The fossils are those of a serpentine species of whale, known as *Basilosaurus isis*, which lived some 10 million years after its ancestors left land. Dr. Philip Gingerich, director of the Museum of Paleontology at the University of Michigan and leader of the team, said: "These limbs are vestiges of the whale's land ancestry, a dramatic link between a limb used for locomotion and the absence of a functional hind limb in modern whales." Whales' flippers are all that remain of what were the front limbs of the world's largest mammals.

The fossil hind limbs measure about two feet from the head of the femur, by way of a flexible knee joint, to the tips of three toes. They were located about two-thirds of the way down the 50 foot body of the whale. Dr. Larry Barnes, curator at the Los Angeles County Museum of Natural History, believes they would have helped guide the whales through shallow water; whereas Dr. Gingerich believes they may have evolved into a "clasper" to aid copulation.

Jeremy Setty explains his research with the aid of a Carcharodon megalodon tooth at the St. Augustine Rotary Club Meeting in August.



MUSEUM HAPPENINGS

In the vertebrate paleontology range, the installation of the mobile compactor storage units has been completed. GARY MORGAN and ART POYER are currently reorganizing the collections back into their respective shelves - one large task considering the size of the museum's VP collection. A new computer cataloguing room has also been built to assist in data entry for the range. DR. RICHARD HULBERT has moved to Georgia Southern University where he is teaching Physical Geology and working part-time in their on-campus museum.

DR. S. DAVID WEBB is working on organizing the Aucilla River Site dive with several UF divers. The recent donation of material from the Wekiva River has RUSS McCARTY, chief preparator, and CHRIS WIETRZYKOWSKI, prep lab work-study, working diligently to see the material restored. ERIKA SIMONS, prep lab technician and contact for the fossil permit project, reports an increase in permit applications over the past few months. Erika has also been working on organizing dive equipment for the museum's expeditions. ALCEU RANCY, Ph.D. candidate from Acre, Brazil, is continuing his work on Pleistocene mammals from the Amazon.

JEREMY SETTY, undergraduate Zoology student, is continuing his work on Miocene-Pliocene shark attacks on whales. DAVID LAMBERT, Ph.D. student, has finished a paper on a giant otter from the late Miocene of Florida, and has had a paper accepted by Paleobiology on feeding habits of shovel-tusked gomphotheres (see illustrations on following pages).

The Invertebrate Paleontology Division has recently been awarded a three-year grant from the National Science Foundation to support further growth and development of the collection. This grant will enable IP to hire the additional manpower necessary to care for the current 35% yearly increase in numbers of catalogued specimens. IP presently has 35,000 catalogued lots (280,000 specimens), making it one of the largest and most useful invertebrate paleontology collections in the Southeast. The grant will also allow IP to purchase 100 much-needed storage cabinets to make room for the expansion of the collection. With the increase in staff size, IP will now have four full-time and three part-time employees.

Individually in IP, DOUG JONES will be attending the upcoming Geological Society of America meeting in Dallas, where he will present a paper discussing the possibilities for application of strontium isotope chronstratigraphy to marginal marine paleoenvironments. This presentation will come on the heels of another talk that Doug recently gave in Rhode Island dealing with carbon and oxygen isotopes in clams. In May, ROGER PROTELL spent two weeks in Jamaica conducting field work with three graduate students from the University of Tennessee. They collected predominately Eocene fossils, but were able to spend one day at the famous Pliocene Bowden Beds. Roger and KEVIN SCHINDLER are also in the process of organizing the collection onto the new compactor storage units and revamping the computer system.

DR. DAVID DILCHER is moving in his paleobotany collection, along with assistant professor STEVEN MANCHESTER and research assistant JONATHAN YODER, as well as several other distinguished graduate students and research assistants, including VICTOR CALL, CHUCK HUANG, MIKE MULLER, and CARRIE ROOSE. The addition of over 120 cases of fossil plants of all ages and from localities around the world will be a large addition to paleo-research at the Florida Museum of Natural History.

Submitted by: W. David Lambert
Department of Zoology, University of Florida

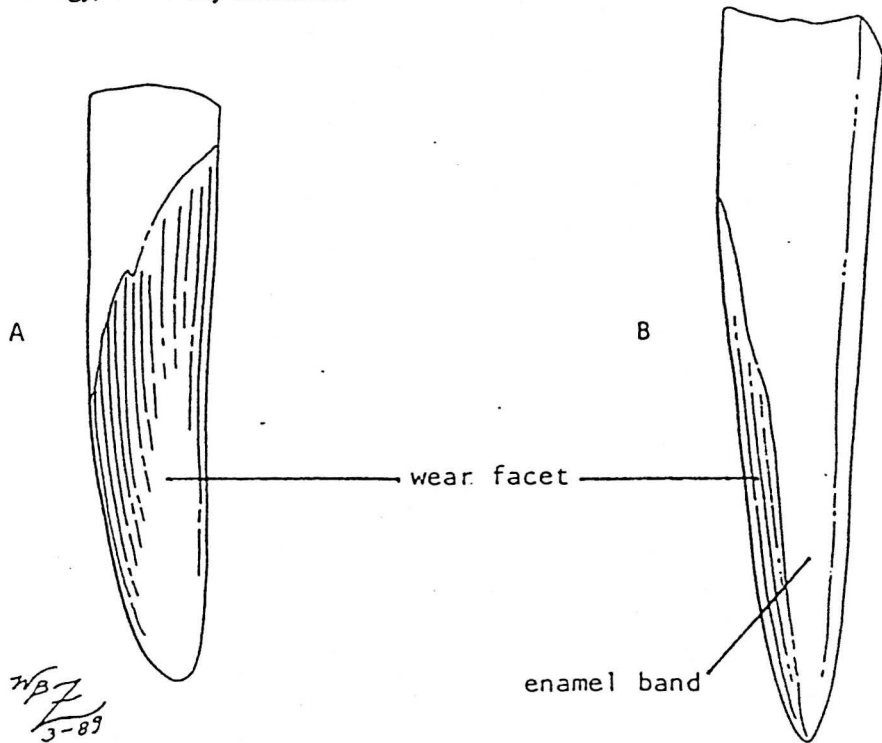


Illustration (1) Distal ends of gomphothere upper tusks showing wear facets. A) medial view of the upper tusk of Amebelodon; B) lateral view of the upper tusk of Gomphotherium, showing the cutting edge formed by the worn enamel band and the medial wear facet.

These illustrations represent work which has been done on the feeding habits of shovel-tusked gomphotheres by David Lambert of the Florida Museum of Natural History. Illustration (1) shows wear patterns on gomphothere upper tusks that resulted from feeding behavior. Illustration (2) shows the shovel-tusked gomphothere Amebelodon stripping bark from a tree with its upper tusks. Illustration (3) shows the shovel-tusked gomphothere Platybelodon slicing a bush in half with its trunk and thin, sharp lower tusks. [illustration (1) was drawn by Wendy Zomlefer, and illustrations (2) and (3) were drawn by Laurie Walz of the Florida Museum of Natural History]

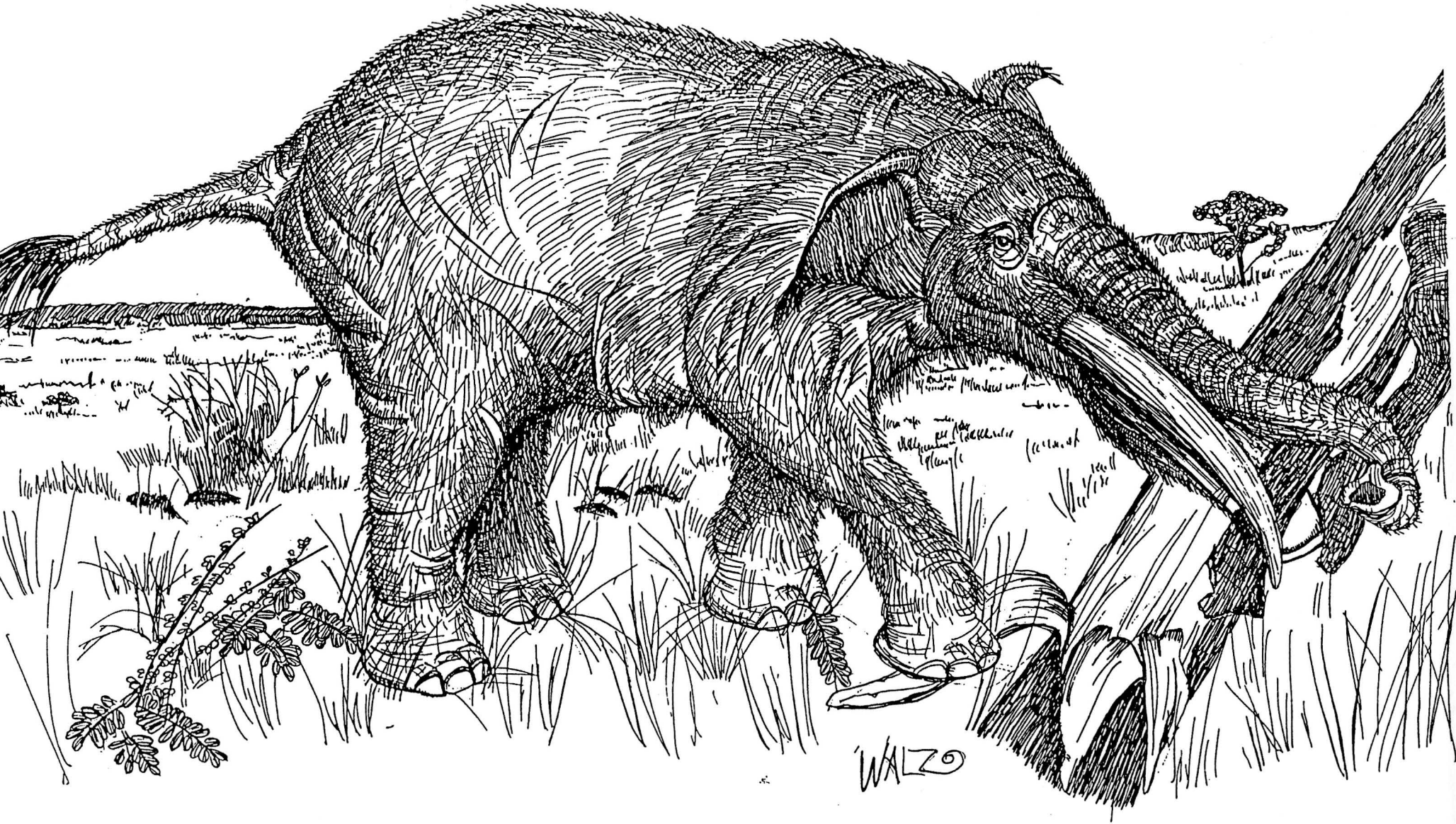
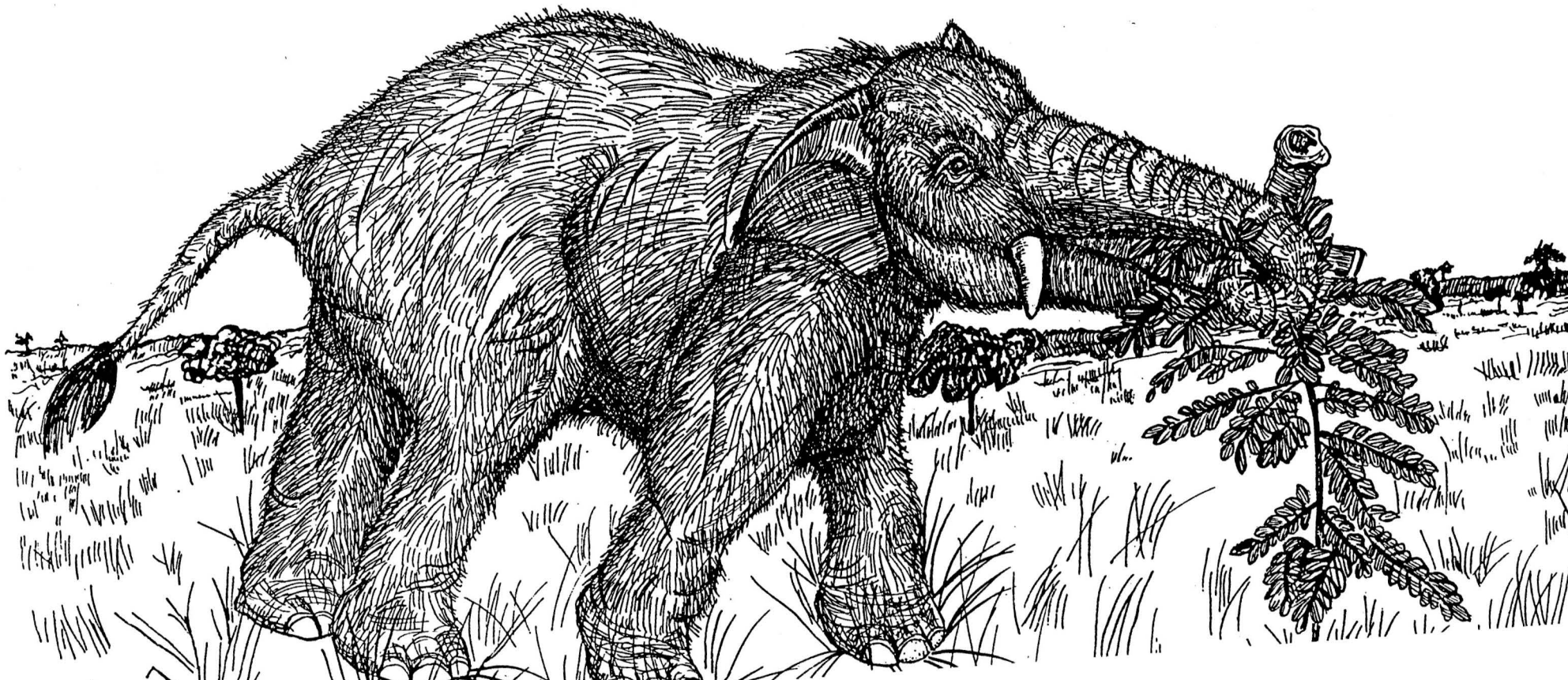


Illustration (2)

Illustration (3)



THE FLORIDA GEOLOGICAL SURVEY

One often overlooked information resource for fossil enthusiasts in Florida is the Florida Geological Survey (FGS). The FGS, located in Tallahassee, is a bureau within the Florida Department of Natural Resources. Since its inception in 1907, the FGS has functioned primarily as the State's official geologic data collection agency. A primary mission of the FGS is the collection, maintenance, and dissemination of data on the geology, paleontology, mineral resources, and ground-water resources of Florida. This data is available for use by other agencies, planners, and the citizens of Florida.

Prior to the creation of the Florida State Museum (now the Florida Museum of Natural History) in Gainesville, the FGS also functioned as a coordinating agency and repository for many of the early vertebrate and macrofossil collecting activities in the state. Survey scientists participated in some of the more famous paleontological expeditions in Florida, including the recovery of the Wakulla Spring mastodon (now at the Museum of Florida History in Tallahassee) and the early man finds at Vero.

The FGS has since donated its vertebrate fossils to the Florida Museum of Natural History, and its collection of American Indian artifacts are now housed at the Florida State University Department of Anthropology. It still maintains an extensive Florida microfossil reference collection (foraminifera, ostracods, and diatoms) numbering over 10,000 specimens. The FGS also houses a collection of over 20,000 macrofossils, including mollusks, corals, and echinoids collected in Florida over the past 60 years. In addition, the FGS oversees the most extensive geologic sample repository in the state, with over 16,000 sets of oil and water well cores and cuttings, as well as samples from approximately 3,200 outcrops statewide. All collections are, upon prior approval, made available to bona fide researchers.

The FGS offices, located in the Gunter Building on the Florida State University campus in Tallahassee, contain an extensive research library and publications office, where FGS publications may be obtained. On display in the lobby is a reconstructed skeleton of a Miocene dugong, *Hesperosiren cratagensis*, collected in a fuller's earth mine in Gadsden County. The public is welcome to visit during normal working hours, 8 a.m. to 5 p.m. Monday through Friday.

Of interest to both professionals and amateurs alike is the FGS's publication series, which includes maps and reports on various aspects of Florida's geology, paleontology, and water resources. Many of the early FGS publications on Florida's fossils are long out of print, but include works on fossil vertebrates, mollusks, echinoids, and corals. Some university and city libraries in Florida are repositories for FGS publications, and may have copies of the older publications. Currently available publications may be ordered by mail for \$1.00 each, or may be picked up free at the FGS offices in Tallahassee. Interested individuals may send for a free list of FGS publications by writing:

Publications Office
Florida Geological Survey
903 West Tennessee St.
Tallahassee, FL 32304

CURRENT NEWS FROM THE FLORIDA GEOLOGICAL SURVEY

The FGS staff is presently working on a detailed geologic map of Florida. Based on data on file at the FGS, fieldwork statewide, and a rigorous auger-sampling program, this map will show the

aerial extent of each surficial geological formation. The map will be printed in color at a 1:500,000 scale.

The FGS recently hired two new geologists, Joel Duncan and Mitch Covington. Joel is a sedimentary petrologist working on a petrographic analysis and geologic history of the Jurassic of the Florida panhandle. Mitch is a micropaleontologist studying the nannofossil biostratigraphy of the Miocene and Pliocene strata of Florida. Nannofossils are among the smallest microfossils known. They include the coccoliths, which are tiny skeletal fragments of planktonic calcareous marine algae. Many distinct species of nannofossils lived for very short periods of geologic time, making them excellent stratigraphic and age markers. The entire Cenozoic and much of the upper Mesozoic may be accurately dated using these tiny fossils.

Frank Rupert, FGS paleontologist, is conducting an ongoing study of the post-Miocene biostratigraphy of Northeast Florida. Many of the otherwise indistinct and interbedded post-Miocene sediments in this area contain microfossils such as diatoms and foraminifera. These fossils may prove useful in more precise age dating of the sediments, paleoenvironmental interpretations, and regional correlation within the Plio-Pleistocene section.

Submitted by: Frank Rupert
Florida Geological Survey

Florida Geological Survey

Currently Available Publications on Florida's Rocks and Fossils

Fossils:

- Dubar, J., 1958, Stratigraphy and paleontology of the Late Neogene strata of the Caloosahatchee River area of southern Florida: Florida Geological Survey Bulletin No. 40, 267 p.
- Dubar, J., 1962, Neogene biostratigraphy of the Charlotte Harbor area in southwestern Florida: Florida Geological Survey Bulletin No. 43, 83 p.
- Fischer, a., 1951, Part II: The echinoid fauna of the Inglis member, Moody's Branch Formation (Ocala Group): Florida Geological Survey Bulletin No. 34, 112 p.
- Hamon, J., 1964, The osteology and paleontology of the passerine birds of Reddick, Florida: Florida Geological Survey Bulletin No. 44, 209 p.
- Richards, H., and Palmer, K., 1953, Eocene mollusks from Citrus and Levy Counties, Florida: Florida Geological Survey Bulletin No. 35, 96 p.
- Rupert, F., 1989, A guide map to geologic and paleontologic sites in Florida: Florida Geological Survey Map Series No. 125.
- Weisbord, N., 1972, Corals from the Chipola and Jackson Bluff Formations of Florida: Florida Geological Survey Bulletin No. 53, 100 p.

Rocks and Minerals:

Lane, B. E., 1987, Guide to rocks and minerals of Florida: Florida Geological Survey Special Publication No. 8 (revised), 61 p.

Publications may be ordered for \$1.00 each (postage and handling) check or money order from the Florida Geological Survey at the following address:

Publications Office
Florida Geological Survey
903 West Tennessee St.
Tallahassee, FL 32304

Please make checks payable to State of Florida.

CLUB NEWS

AQUAVENTURES UNLIMITED DIVE CLUB - P.O. Box 651055, Miami, FL 33265. AquaVentures Unlimited will hold its Fourth Great Shark Tooth Hunt of 1990 at Venice, FL on September 15 & 16. For more information contact Bob Morgan at (305) 221-1783.

BONE VALLEY FOSSIL SOCIETY - c/o Ed Holman, 2704 Dixie Road, Lakeland, FL 33801. The BVFS will hold its 7th Annual Florida Fossil Fair on October 5, 6, and 7, 1990 at the Best Holiday Trav-L-Park & Campground, 2.6 miles East of Cypress Gardens on SR 540 (or one mile West of US 27 on SR 540) in Winter Haven, Florida. The public is invited and there is no cost for admission.

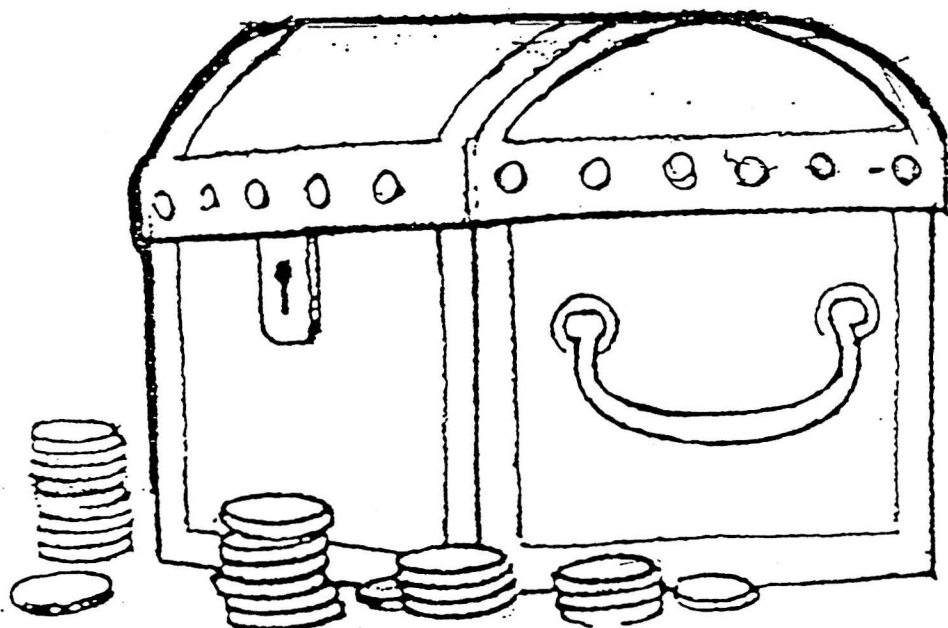
FOSSIL CLUB OF MIAMI - 12540 SW 37th St., Miami, FL 33175. The Fossil Club of Miami is growing and would surely benefit from the input of some of our members. If you would like more information on this club, look in the last FPS Newsletter for a membership application or contact Bob Morgan at (305) 221-1783, or Al Cook at (305) 856-8261.

GOOD TIME DIVERS - Gaitway Plaza, Ocala, FL - (904) 237-DIVE. Dennis Saunders of Good Time Divers reports that the National Association of Cave Divers and the National Speleological Society have completed their Silver Glen surveying project. They presented the Forestry Service, Department of Natural Resources, with a completed map on September 6.

SUN COAST ARCHAEOLOGICAL AND PALEONTOLOGICAL SOCIETY - 1529 30th Ave. North, St. Petersburg, FL 33704. The Society reports that Ray Robinson, their current president and former FPS board member, recently underwent major abdominal surgery. He is presently recovering and reports are that he's doing fine and is in the process of getting back to projects begun earlier in the year.

The Florida Museum of Natural History
cordially invites you to

"Underground Treasures"



A gem, mineral, and fossil show

October 28, 1990
12:00 noon to 4:00 p.m.

Please contact Susan Sowell at 392-1721 if you would like to display a personal collection.

DINOSAURS INVADE FLORIDA MUSEUM OF NATURAL HISTORY

Dinosaurs should have no regret that they didn't roam Florida millions of years ago. They're making up for that oversight now with the new exhibit at the Florida Museum of Natural History by Dinamation. Visitors to the museum can now see not only the new Florida fossil exhibit, but also a rare treat: dinosaurs, moving, blinking, and calling with primeval voices to their viewers.

Dinamation International Corporation has eight pneumatically driven dinosaur replicas on display. The dinosaurs themselves were brought into the museum in two large semi trailers one weekend in September. The first problem was discovered there: the models were so large that they couldn't fit through the museum's double-door entrance! A pane of glass which composes part of the museum exhibit area wall had to be removed in order to accommodate the bulky reptiles, and museum employees spent quite some time getting the dinosaurs into position where they now stand.

The second task confronting the museum's Department of Interpretations was acquiring a compressor large enough to power the pneumatic dinosaurian robotics. Finally one was located in Lake City. Running on a 460-volt power line specially run from a nearby transformer, the machine runs continuously to keep the dinosaurs alive.

The dinosaurs on exhibit include adult and juvenile specimens of *Apatosaurus* and *Parasaurolophus*, adult *Triceratops*, *Stegosaurus*, *Pachycephalosaurus*, and *Tyrannosaurus*. In addition, there is a cutaway of *Dimetrodon* allowing kids and other visitors to run (with a joystick) the robotics by which the dinosaurs are activated, an enormous *Tyrannosaurus* head and cutaway leg showing the features which allowed the tyrant lizard to capture and consume its prey, and countless information panels describing such things as habitat, anatomy, physiology, and other aspects of dinosaurs in general.

Admission to Dino-Mania is \$4.00 for ages 14 and up, \$3.50 for members of the Museum Associates and senior citizens, \$2.50 for ages 3-13, and \$2.25 for Museum Associates under 14. Free admission days will be held on October 9, November 13, and December 11, from 2:00 to 5:00. Group reservations or Dino-Mania information can be acquired by calling (904) 392-8292.

Dino-Mania will be at the museum until January 6, 1991, 9 a.m. to 5 p.m. weekdays, 9 a.m. to 6 p.m. Saturdays, and noon to 6 p.m. on Sundays and all holidays except Christmas Day.

OCTOBER

28 SUNDAY

UNDERGROUND TREASURES

Discover the fascinating world of gems, minerals, and fossils. Private collectors will exhibit their treasures; activities for all ages. Noon - 4:00 p.m.

NOVEMBER

4 SUNDAY

MUSEUM SCIENTIST

"A New Look At Dinosaurs," Dr. Bruce J. MacFadden, Curator, Department of Natural Sciences, Florida Museum. Slide/lecture program. Classroom (limited seating), 2:00 p.m.

18 SUNDAY

DESIGN-A-DINO

Can you design a dinosaur that will not become extinct? Use scientific information and/or your imagination to invent your creature. Entries will be judged on November 18. For more information and contest application please contact the museum. Awards Ceremony, 1:00 p.m.

DECEMBER

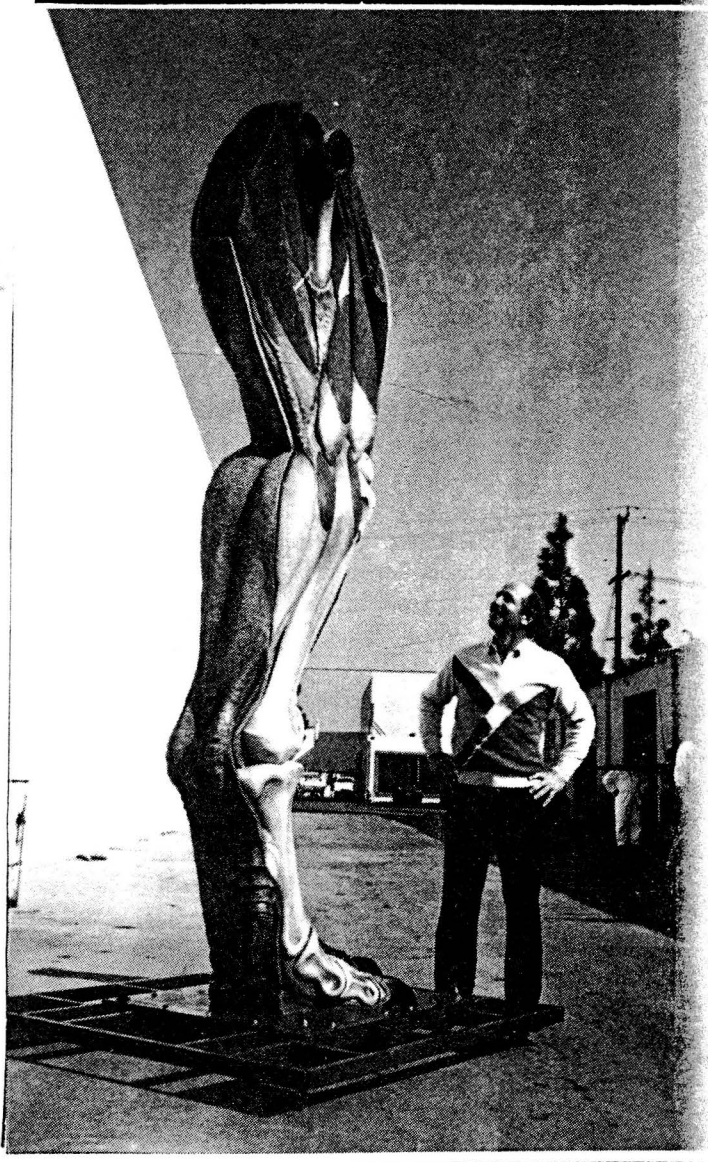
2 SUNDAY

MUSEUM SCIENTIST

"From Mastodons To Saber-Toothed Cats: Florida's Extinct Mammals," Dr. S. David Webb, Curator, Department of Natural Sciences, Florida Museum. Slide/lecture program. Classroom (limited seating), 2:00 p.m.



T-REX LEG



The Tyrannosaurus rex left hind limb on exhibit gives visitors an awe-inspiring view of the size of the large predator, as well as putting it in a lifelike position complete with bone and musculature views.

BOOK REVIEW

THE ILLUSTRATED ENCYCLOPEDIA OF DINOSAURS. Dr. David Norman. Copyright 1985. Published by Crescent Books, New York. 208 pages.

With the recent explosion of dinosaur popularity that has even resulted in dinosaur-shaped pasta, a plethora of books about dinosaurs have been released. Some of these books are very simple in their presentation of information about dinosaurs, being primarily picture books oriented towards children. Others are highly technical, requiring an extensive background in general biology and perhaps geology to be easily understood. Still other books, perhaps most, lie somewhere in between these two extremes. Books in the last category are suitable for the educated layman who has an interest in dinosaurs, offering general information about dinosaurs and their way of life. However, they often lack the extensive and often beautiful illustration that appeals to children, and for the most part lack the "hard" factual information of interest to professional vertebrate paleontologists. The book The Illustrated Encyclopedia of Dinosaurs basically falls into this last category of dinosaur books, being aimed at the educated layman. However, it differs from the vast majority of other books in that it has something significant to offer to the young dinosaur aficionado as well as the professional vertebrate paleontologist.

The illustrations in this book are excellent; they are the basis for its appeal to children. Many of the illustrations are rather technical in nature, showing phylogenetic trees (the most beautifully colored I have ever seen) and line drawings of the skeletal anatomy of various dinosaurs. Such drawings, particularly the anatomical ones, are useful to an educated adult or even a professional vertebrate paleontologist trying to improve his understanding of dinosaur function and evolutionary history. However, there are also large numbers of colorful dinosaur restorations of outstanding quality that more than anything emphasize the enormous diversity of dinosaurs currently known to science. Besides favorite dinosaurs such as *Tyrannosaurus*, *Triceratops*, and *Ankylosaurus*, less well-known dinosaurs as *Anchisaurus* (a primitive cousin to the sauropods), *Vulcanodon* (an obscure sauropod that I had never heard of before reading the book) and *Dilophosaurus* (an early carnivorous dinosaur) are represented as well. I can't imagine a dinosaur fan of any age or background who would not enjoy simply perusing through the book's illustrations.

However, for all of its wonderful illustrations, this is not a pretty picture book devoid of all meaningful text. Rather, textual information is a great strength of this book. The author covers such aspects of dinosaurs as functional anatomy, taxonomy, biogeography in relation to continental drift, evolutionary history and relationships, biology (particularly their ecology), and and history (e.g. the general history of dinosaur discovery, which paleontologist originally named a given genus, ideas paleontologists have had about dinosaurs, and so on.) Moreover, the third chapter, "To Study a Dinosaur," is devoted entirely to methodology. Surprisingly, the author does not even restrict himself to dinosaurs, but includes information on the ancestors of mammals, pterosaurs, Mesozoic marine reptiles, crocodilians, and even living lizards and snakes.

However, for all of its strengths, this book has distinct weaknesses. Perhaps most annoying is its lack of proper documentation. The author makes numerous dated references to ideas and discoveries, yet nowhere in the entire book does he cite the specific literature on which the references are based; he even fails to include a list of additional references or a simple bibliography. Less annoying, but still in strict sense improper, are the phylogenetic trees expressing dinosaur evolutionary relationships. The author gives no explanation of the principles on which his phylogenetic trees are based, nor does he list anywhere the specific characters of the animals used in his analysis. Lacking this information, I think that these phylogenetic trees are potentially more confusing than enlightening to novice and professional paleontologists alike.

Despite these problems, I believe that overall The Illustrated Encyclopedia of Dinosaurs is an excellent book that belongs in the library of all dinosaur fans. Its illustrations are numerous and beautiful, its text is highly informative about the most interesting aspects of dinosaurs, and additionally gives the reader a real sense of what is entailed in paleontological investigation beyond simple skeleton excavation and reconstruction. If a person of any age or background were going to consult a single book about dinosaurs, then The Illustrated Encyclopedia of Dinosaurs would be a fine choice. I fear that this book has gone out of print, but it is widely available in libraries. If you do find it in a bookstore or book catalog, snap it up.

Submitted by: W. David Lambert
Department of Zoology, University of Florida

P.S. - The editor plans to include more reviews of other new dino books in future newsletters.

NEW STORES WILL BENEFIT FLORIDA'S FOSSIL COLLECTORS

Florida's amateur paleontologists have some new friends in Marion County. Two new stores have opened their doors in recent months to cater to the needs of fossil enthusiasts.

GOOD TIME DIVERS, formerly of Belleview, has moved their shop to Ocala. To celebrate the move, they are generously offering FREE TANK FILLS to anyone showing a valid diver's card and Florida fossil permit. In addition, for the snorkelers and other water sports fans who don't SCUBA, but still have a fossil permit and a desire to collect, they are also offering a 5% DISCOUNT on everything in the store.

They're located in the Gaitway Plaza on State Road 200 (that's College Road) in Ocala. They can be easily located by our non-Marion County members by following the signs on I-75 or 441 to Central Florida Community College. They are then located one block east of the CFCC main entrance. Their new number is easy to remember: (904) 237-DIVE. If you've been putting off getting that permit, get it now and let Dennis Saunders, manager at Good Time Divers, help you put it to use!

EARTH SCIENCE DISTRIBUTORS, owned by Frank Garcia, Ben Waller, and John Claytor, has also recently come into the spotlight. This store has moved into what was formerly the Good Time Divers shop. They have in stock everything from dinosaur bones and Florida fossils to artifacts and T-shirts. You can find them in Belleview on US 441, one block North of the intersection of C-25. Anyone who stops to look at the items in their store will find their fossils as distinguished as the owners themselves.

Anyone planning to do any fossil collecting in or near Marion County will definitely want to check out these new stores. Their owners are experienced collectors and are eager to help others who share their interest in fossils.



FACT SHEET

Director: Peter Bennett

Location: Gainesville, Florida

Hours: Museum Exhibits: Mon.-Sat. 9 a.m.- 5 p.m.
Sun. and holidays 1 p.m.- 5 p.m.

***EXTENDED FOR DINO-MANIA**

Mailing Address: Florida Museum of Natural History
Museum Road, University of Florida
Gainesville, FL 32611

Phone: (904)392-1721

Year Founded: 1917

Mission: To serve as the University's and Florida's museum, with emphasis on Florida and Caribbean natural sciences and anthropology.

Accreditation: American Association of Museums

Status: Largest natural history museum in the South. One of the 10 largest natural history museums in the nation.

Number of Researchers: 29 Curators, 43 Research Scientists, 78 Graduate Students

Number of Support Staff: 75 and the University infrastructure in development, information services, building and grounds, and others.

Annual Budget: \$3,200,000 plus infrastructure support

Funding: The Florida Museum of Natural History is a part of the University of Florida, but it also relies heavily on private funding and grants to support its extensive research, exhibition and education projects.

Main Facility: 110,000 square feet - one-third is exhibit space, the remainder houses research and collection facilities.

Departments: Interpretation, Anthropology and Natural Sciences

Outlying Units: Comparative Behavior Laboratory occupies 10 acres on the western edge of campus with related research programs on plant and animal life.

Herbarium is in Rolfs Hall on campus and contains over a quarter million plant specimens;

Swisher Memorial Sanctuary and Katharine Ordway Preserve, east of Melrose, is the museum's 9,300-acre open-air laboratory where researchers study Florida's living collections;

Allyn Museum of Entomology in Sarasota is a collection and research center with the largest butterfly and moth collections in the United States.

PLEASE SEND YOUR DUES IN A PROMPT MANNER.
MEMBERS CARDS WILL BE MAILED WITH YOUR
NEWSLETTERS. DUE TO BUDGET CUTS THE
POSTAGE WILL BE A SOCIETY EXPENSE. HELP
KEEP THE COST DOWN TO NEWSLETTERS.

THANK YOU!



FLORIDA PALEONTOLOGICAL SOCIETY, INC. RENEWAL _____
MEMBERSHIP REGISTRATION 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
[]	ACTIVE MEMBER	\$10.00
[]	ASSOCIATE (UNDER 18 YEARS)	5.00
[]	INSTITUTION (NO VOTE)	10.00
[]	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 _____

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.