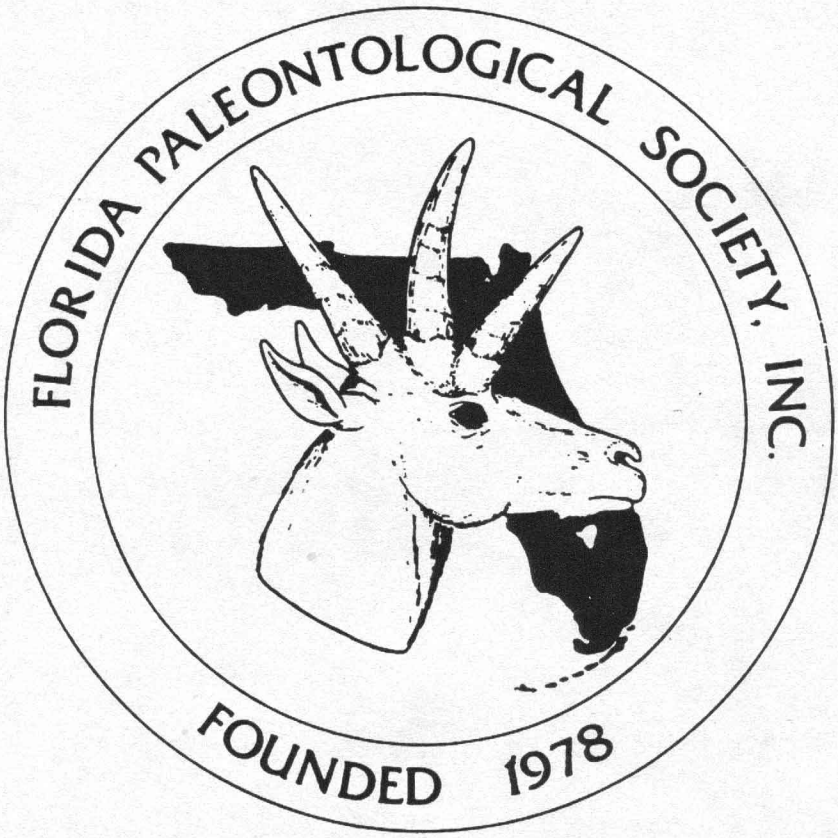
Florida Paleontological Society, Inc.

Newsletter



Volume 11 Number 3 Summer Quarter 1994

FLORIDA PALEONTOLOGICAL SOCIETY, INC.

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President:	Frank Rupert, Florida Geological Survey 903 W. Tennessee St. Tallahassee, Florida 32304 (904) 488-9380
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Past President:	Jim Pendergraft, 17 Jeff Road Largo, Florida 32544 (813) 595-2661
Vice President:	Gordon Hubbell, 150 Buttonwood Drive Miami, Florida 33149 (305) 361-5890
Secretary:	Eric Taylor, P.O. Box 3506 Lake City, Florida 32056 (904) 752-6764
Treasurer:	Phil Whisler, Fla. Paleo. Soc., Florida Museum of Natural History, Gainesville, Florida 32606 (904) 372-3790

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Barbara Toomey, Sanibel, 1996

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Book Committee:	R. Portell, D. Jones, B. McFadden
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HONORARY MEMBERS

Margaret C. Thomas Anita Brown Lelia and William Brayfield David Webb Gary Morgan

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 INC. NEWSLETTER

Volume 11, Number 3 Summer Quarter

CONTENTS

VOTE for new FPS Officers...see ballot, page 9

FPS FALL MEETING

October 29, 1994
Gainesville, FL

Featuring:

Talks on the famous Thomas Farm fossil fauna
Tours and fossil identifications at the FLMNH
Banquet Dinner and Fossil Auction

See Information and registration form, pages 13-15 inside!

President's Report

With the upcoming Fall Meeting, my tenure as FPS President draws to an end. In retrospect, it has been an interesting, challenging, and enjoyable two years. I have attempted to take a balanced approach to managing the affairs of our society, an approach dictated by the varied interests of our diverse membership.

My job has been made much easier by the assistance of a truly outstanding and dedicated slate of officers and Board members. I want to personally thank the current officers Gordon Hubbell, Eric Taylor, and Phil Whisler, as well as all the Board Members and the often under-recognized committee members for so ably giving of their time, talents and energy. The FPS is depends heavily on these volunteers, and is definitely a better organization for their efforts.

The last two years have seen some significant accomplishments by the FPS. Some of these are new programs, conceived in large part by individual members and designed to enhance the science of paleontology in Florida. During 1992, we initiated the FPS liaison program. This program stemmed from the recognized need for a traveling representative to network with other amateur clubs statewide and foster communication and interaction between professionals, amateurs, and the FPS. Lacking the funds for a full time representative, Eric Taylor has successfully served the position in a volunteer capacity, visiting other clubs and distributing information about the FPS.

We also presented the first in a hopefully long series of annual FPS Student Research Awards in 1993. This is a monetary award designed to assist paleontology students at Florida colleges with their research work. Recipients are selected by a three-member committee based on a brief research proposal. The award is presently fixed at $500, and is intended to be funded from the proceeds of the annual fossil auctions.

The Board of Directors introduced several changes to our society's structure to improve functioning of the organization and to enhance income. Several new membership categories were added to allow members more flexibility, and in some cases, to save money on membership dues. The most painful change was an increase in individual annual dues, a necessary step in order to continue the growth in our publication and services programs. Despite the individual dues increase, paid-up memberships as listed on the 1994 roster are up 35% over similar 1992 figures. The untimely loss of Honorary and founding member Ben Waller in 1993 saddened many long-time members. Our Honorary Member list, however, grew with the addition of Lelia and William Brayfield, Dr. David Webb, and Gary Morgan.

The Board also initiated a change in the length of FPS officer terms. Officers now serve two years, a move which allows for better continuity in each office and which cuts in half the time spent in drafting nominees for these positions.

We can be especially proud of our on-going commitment to our publication program. During the past two years, we have continued to upgrade the newsletter format, and although still not up to the desired level, we have received increased article input from our membership. Significant progress was made on Richard Hulbert's long-awaited book on the fossil vertebrates of Florida. The FPS also received publication rights to the Brayfield's classic *A Guide for identifying Florida Fossil Shells and Other Invertebrates*. Florida Museum of Natural History staff updated the nomenclature and the society published a new edition of this popular guide. Sales of the latest edition of Margaret Thomas' *Fossil Vertebrates* have continued to be brisk, and we have nearly depleted our stock of Howard Converse's *Handbook of Paleo-preparation Techniques*. In the works are a new *Papers in Florida Paleontology* and a volume on the vertebrate fossils of the Leisey Shell Pit. Also in progress is an FPS *Member's Manual*, designed to be a guide to the history, traditions, and functioning of our club.

Last, but not least, the Officers and Board are pleased with the successful series of Spring and Fall Meetings conducted during the past term. We have entertained some very interesting speakers on a variety of paleontological subjects, and have had what we feel are several successful field trips and fossil auctions. The success of these meetings has been due primarily to generous donations of time and energy by our meeting committee members. Again, they cannot be thanked enough.

As the Presidential *Hexomeryx* horns are passed to President-Elect Sue Pendergraft this Fall, she will inherit a fiscally sound corporation along with an excellent slate of fellow officers with which to continue our growth. I extend my support and my best wishes to Sue. I sincerely hope she finds her tenure among the good people we count as our members as enjoyable as I did.

Frank Rupert
President

News Notes...

by Frank Rupert

Fall Meeting Update...

After considerable consternation over the conflict between the legendary Georgia-Florida football game and our Fall meeting weekend, we have finalized the meeting plans. The meeting *will* be in Gainesville on Saturday, October 29. The planned events will take place at the University of Florida Reitz Union and at the Florida Museum of Natural History, which are a block apart on campus. By starting early, we hope to avoid the traffic congestion and parking problems which will occur prior to the game (currently thought to start at 3 PM.).

The morning session at the Reitz Union will feature talks about the paleontology of the Thomas Fram site as well as our traditional Fall business meeting. We will be electing new officers and discussing changes to the bylaws during the meeting. The afternoon will be spent touring the FLMNH, where staff will be available to help with your fossil questions.

Dr. Webb has arranged an evening banquet in the Arredondo Room at the Reitz Union, with your choice of a chicken or beef dish. Please use the enclosed reservation form if you plan to attend. Our Fall fossil auction will follow the banquet.

We have cancelled the plan to take people on a tour of the Thomas Farm site. However, Eric Taylor is working on a field trip for anyone planning to stay over until Sunday. Details will be announced at the meeting.

Upcoming Events

Sept. 17-18 Central Florida Shell Show, Orlando, FL. Contact Larry Stiles, 1505 N. Carolwood Blvd., Fern Park, FL 32730, (407) 834-2176.

Oct. 8-9 Florida Fossil Hunters 4th Annual Fossil Fair, Orlando, FL.

Oct. 22-23 Eleventh Annual Bone Valley Fossil Fair, Lake Mirror Center, 800 E. Main St., Lakeland, FL. For info., (813) 665-3426.

Oct. 29-30 FPS Fall Meeting, Gainesville, FL. Details forthcoming.

Nov. 4-6 Imperial Polk County Gem and Mineral Show, Winter Haven, FL. Held at Latt Maxcy Citrus Center, Polk County Fairgrounds, 2640 SR 542, Winter Haven, FL. Contact Mr. Win Shutt, 1403 Neptune Drive, Lakeland, FL 33801, (813) 665-3343.

Book Bits

Medical doctor, author and FPS member Robin Brown of Ft. Myers has given us another outstanding book in his recently-published ***Florida's First People***. Most people know Dr. Brown for his now famous Florida's Fossils, an invalable guide to collecting and identifying the common fossils found in Florida.

Florida's First People describes in uncomplicated detail, and with numerous illustrations, who Florida's earliest people were, how they lived, and what we have discovered about them based on archaeological sites statewide. Interestingly, Dr. Brown personally learned many of the indian tool-making and food preparation techniques described in his book. This book is 262 pages of pure fascination for anyone interested in Florida's past. It is available for $34.95 from local bookstores or directly from the Pineapple Press. An order form is provided in this newsletter.

The remainder of this Bookbits column is devoted to some odd's and ends, primarily advertisements received by this editor for various books. These are shown in the following pages. Since we haven't personally reviewed these books, we can't comment on them and they are presented for your information only. Anyone interested in writing us some reviews on these or any other recent paleontology texts, send them in!.

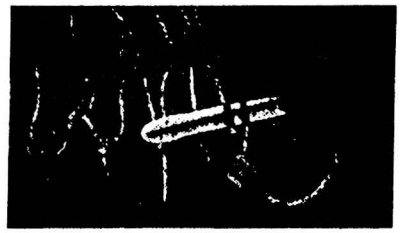
Florida's First People

12,000 Years of Human History

Robin C. Brown

This clearly written, richly illustrated book describes the day-to-day lives of Florida's earliest inhabitants, using archeological finds at several known sites of early communities and the author's own replications of native skills to bring the culture of these people to life.

From just after the last Ice Age – about 12,000 years ago – to the landing of the first Spanish explorers, Florida's hospitable climate and diverse ecosystems were home to several distinct cultures of early people. From careful archeological methods, we know quite a bit about what they ate, how they hunted, and even many of their attitudes about life and death. The author personally replicated many of the technologies used by primitive people in order to better understand how they survived. He fashioned tools from stone, shell, wood, and bone, then used the implements to carve wood, twist palm fiber into twine and rope, make and decorate pottery, and weave fabric.



The book also features a photographic atlas of Florida projectile points, pottery types, and typical plant and animal remains that are uncovered at Florida archaeological sites.

"Florida's First People *is authoritative, readable, and splendidly illustrated. The 12,000+-year history of Florida's real natives is told sympathetically and factually, relying on modern archeological findings and the author's own experiments with native technology.* Florida's First People *is a book for all ages, and it will be of interest to anyone who is curious about Florida's past."*
– William H. Marquardt, Curator in Archeology, Florida Museum of Natural History

Robin C. Brown is a physician in private practice in Fort Myers. A lifelong interest in the early history of the state prompted his first book for Pineapple Press in 1988: *Florida's Fossils.*

order form

Please send ____ copies of **Florida's First People**. Single copy price: $34.95. (Please add $2.00 shipping for the first book, and $ .50 for each book thereafter. Florida residents add 7% sales tax.)

( ) Check here to receive a free catalog.

Ship to:
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Paleontological Research Institution

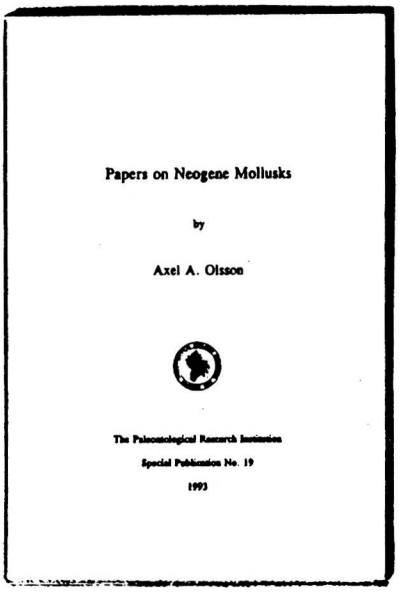
Publications Office
1259 Trumansburg Road
Ithaca, New York 14850-1398

(607)273-6623 • FAX (607)273-6620

Classic, out-of-print papers on fossil mollusks from Florida and the Carolinas!

Papers on Neogene Mollusks

by Axel A. Olsson.

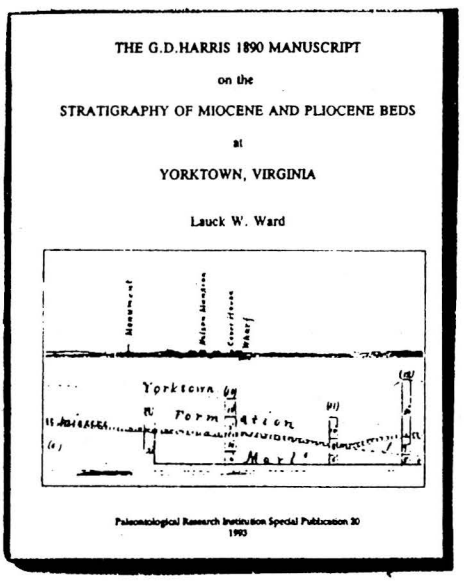


Facsimile reprints of three long out-of-print papers by one of the foremost experts on fossil mollusks of the eastern United States. An invaluable identification guide and reference for collectors, teachers, and students.

PRI Special Pub. 19. ISBN 0-87710-428-X, 163 p.

G.D. Harris 1890 Manuscript on the Stratigraphy of Miocene and Pliocene Beds at Yorktown, Virginia

by Lauck W. Ward.



This previously unpublished manuscript by pioneering paleontologist Gilbert Harris is the first known written description of the extensive late Cenozoic stratigraphic section along the York River. This section is now inaccessible. Harris's flowing handscript is reproduced in facsimile with transcription and annotations by coastal plain expert Lauck Ward of the Virginia Museum of Natural History. This unique volume is of interest not only to geology buffs but also to historians of science.

PRI Special Pub. 20. ISBN 0-87710-429-8, 118 p.

Publications in Geology and Paleontology

Virginia Museum of Natural History

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New Publication

Molluscan Assemblages of the Chowan River Formation, Part A

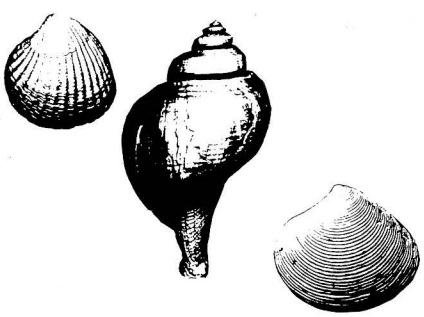
Biostratigraphic Analysis of the Chowan River Formation (Upper Pliocene) and Adjoining Units, the Moore House Member of the Yorktown Formation (Upper Pliocene) and the James City Formation (Lower Pleistocene)

VMNH Memoir 3, Part A

Lauck W. Ward and Norman L. Gilinsky

Mollusks of the upper Pliocene Chowan River Formation of southeastern Virginia and eastern North Carolina are compared with mollusks from adjoining older and younger units by traditional biostratigraphic methods and statistical Q- and R-mode cluster analyses. The study also documents a major extinction of temperate-water mollusks approximately 3 million years ago, due to an extreme cooling event.

$15.00 40 pages + oversized illustrations (5 tables and 1 cluster analysis) in pocket; 8½" x 11"; 1 fossil plate, 2 b/w photos; paper
ISBN 0-9625801-7-1 December 1993



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Paleontology

Molluscan Biostratigraphy of the Miocene, Middle Atlantic Coastal Plain of North America

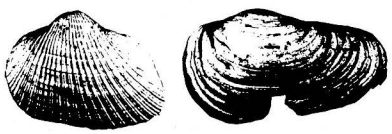
VMNH Memoir 2

Lauck W. Ward

In spite of over one hundred years of attention to the Miocene geology of the Coastal Plain of the middle Atlantic states of North America, until the publication of this volume the area lacked a comprehensive biostratigraphic framework. In this volume, biostratigraphic concepts are reviewed and a zonation based on mollusks is proposed that covers the relatively complete Miocene section in Maryland, Virginia, and North Carolina. A series of eight interval-zones are described, based on first-occurrence data of stratigraphically important mollusks, and the entire time sequence of the Miocene is represented.

The mollusks used in the study are treated systematically, and their nomenclatural histories as well as their geographic and stratigraphic ranges discussed. Thirty-five new species or subspecies and seven new genera are named and described. This well-illustrated monograph on the Miocene strata and fauna will be an essential source for scientists, educators, students, and amateurs. The twenty-six excellent fossil plates and the thirty-two graphically depicted outcrop sections make the volume valuable both in the laboratory and field. This refinement of the molluscan systematics clears up much of the confusion in nomenclature of Maryland and Virginia fossils.

$25.00 232 pages, 8½" x 11", 26 b/w plates 1992
1 table in pocket, softcover ISBN 0-9625801-3-9



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Paleontological Research Institution Special Publication 20

The G. D. Harris 1890 Manuscript on the Stratigraphy of Miocene and Pliocene Beds at Yorktown, Virginia

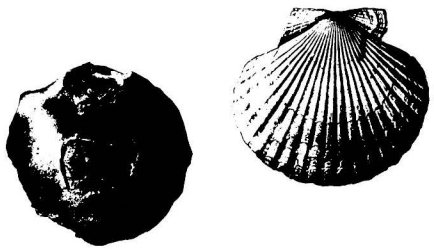
Edited by Lauck W. Ward

This volume, published by the Paleontological Research Institution, makes available for the first time the complete contents of a previously unpublished manuscript by Gilbert D. Harris, written in 1890, on the Neogene stratigraphy at the classic site of Yorktown. Presented are both a facsimile of Harris's original manuscript and a transcription.

The manuscript is important for a number of reasons: it is beautifully written, both as calligraphy and as prose; it astutely describes an important area only briefly mentioned in the literature; and most importantly, it describes an area now lost to science since the entire shoreline was unfortunately armored with "riprap" in the last few decades.

The information provided by Harris will be valuable for both stratigraphers and for paleontologists trying to interpret the numerous collections of Yorktown fossils held in museums all over the world.

$20.00 118 pages; 7½" x 9½"; 1993; 2 charts, 1 oversized; b/w photos; paper ISBN 0-87710-429-8 1993



Ward & Gilinsky, *Molluscan Assemblages of the Chowan River Formation, Part A*, @ $15.00 each
Ward, *Molluscan Biostratigraphy of the Miocene*, @ $25.00 each
Ward, *The G. D. Harris 1890 Manuscript*, @ $20.00 each

($1.50 for first book plus 75¢ each additional book)
(Virginia customers only: add 4.5% sales tax)

Mail order to:
Publications Department
Virginia Museum of Natural History
1001 Douglas Avenue
Martinsville, VA 24112

Attention FPS Members...

DONATIONS NEEDED!

for

The 1994
Florida Paleontological Society

FOSSIL AUCTION

October 29, 1994

to be held in conjunction
with the Fall Meeting in Gainesville

Give us your unwanted or extra paleo-items!

Books and Posters
Fossils
Fossil Casts
Paleo Hats, T-shirts, patches
Rocks, Minerals
Tools, washing screens, etc.

Bring your donations to the Fall Meeting
or send them with a friend.

BALLOT

Please indicate your choice for the following FPS Officer and Board of Director positions:

President-Elect

Gordon Hubbell _____

Vice President

Larry Ellis _____

Secretary

Eric Taylor _____

Treasurer

Phil Whisler _____

***Board of Directors* (3 needed)**

Jim Toomey _____

Barbara Fite _____

Dr. Douglas Dew _____

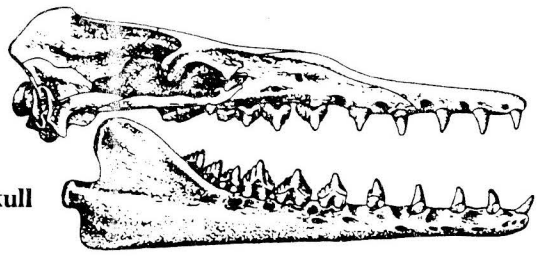
Please sign back of envelope and mail the completed ballot by October 15 to:

Eric Taylor, Secretary
Florida Paleontological Society
Florida Museum of Natural History
University of Florida
Gainesville, FL 32601

or, you may bring the ballot with you to the Fall Meeting. Election results will be tallied and announced at the meeting.

The Eocene Vertebrates of Florida

by Eric Prokopi



***Zygorhiza kochi* skull**

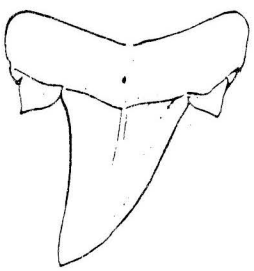
(Reprinted with permission from the ***Bone Valley Fossil News****, May 1994)*

The oldest surface exposures in Florida, the Avon Park and Ocala Limestones, contain an interesting and unique mixture of marine vertebrates. The Ocala Limestone is mainly exposed in limerock mines, caves, and river bottoms along the west coast of Florida from Sumter and northern Hernando to Dixie and Lafayette Counties. It is composed of three formations: the Inglis, Williston and Crystal River Formations. The Avon Park Formation is exposed in Levy County.

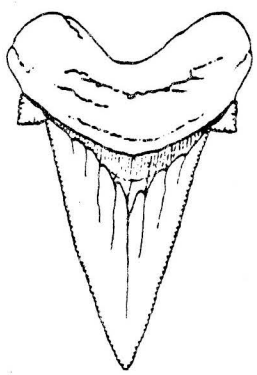
The vertebrate fauna of these Eocene rocks consist of eleven species of sharks and rays, five bony fish, a sea turtle, a snake, a crocodile, two sea cows, and three whales. There are two species of sand sharks: *Carcharias* cf. *hopei* and a smaller *Carcharias* sp. The large predatory sharks are represented by *Isurus praecursor* (the ancestor of all mako sharks and the living great white), *Cretolamna twiggsensis* (a holdover from the Cretaceous whose teeth are commonly mistaken for the early Eocene *Otodus obliquus*), the early giant white shark *Carcharocles auriculatus*, and the ancestral tiger shark *Galeocerdo latidens*. The remainder of the sharks are *Hemipristis curvatus* (the ancestral snaggletoothed shark), *Carcharinus gibbesi*, and *Physogaleus* cf. *tertius* (an early representative from another line of tiger sharks.)

The rays include *Aetobatis* sp. (an eagle ray), *Myliobatis* sp. (a cow-nosed ray), and *Pristis* sp. (a saw fish). The list of bony fish from Florida's Eocene is not as long but includes *Holocentrites ovalis* (a squirrel fish), a sea bass, *Hypsocephalus atlanticus* (a snapper), the barracuda *Sphyraena* sp., and *Diodon* sp. (a porcupine fish).

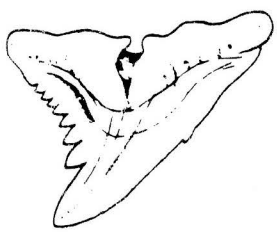
The reptiles and mammals from Florida's Eocene are more unusual and interesting than the fish (for most people). The reptiles are represented by a sea turtle, a medium-sized marine crocodile, probably of the genus *Charactosuchus*, and *Pterosphenus schucherti*, a giant sea boa representing an extinct family. Sea cows are fairly common in the Inglis and Avon Park Formations (as ribs) and are represented by one or two species. Most specimens pertain to *Protosiren* sp., but a few vertebra have been found that look similar to those of *Prorastomus cetoides*, which is the earliest known sea cow. Last but certainly not least are the whales *Zygorhiza kochi*, *Basilosaurus cetoides* and *Pontogeneus* sp. These are primitive whales called archaeocetes and are ancestral to all modern whales and dolphins. *Zygorhiza kochi* was a small dolphin-like whale that reached a length of fifteen or twenty feet. *Basilosaurus cetoides* was a very large snake-like whale that may have reached 60 feet in length. Its



Cretolamna twiggsensis
upper lateral tooth



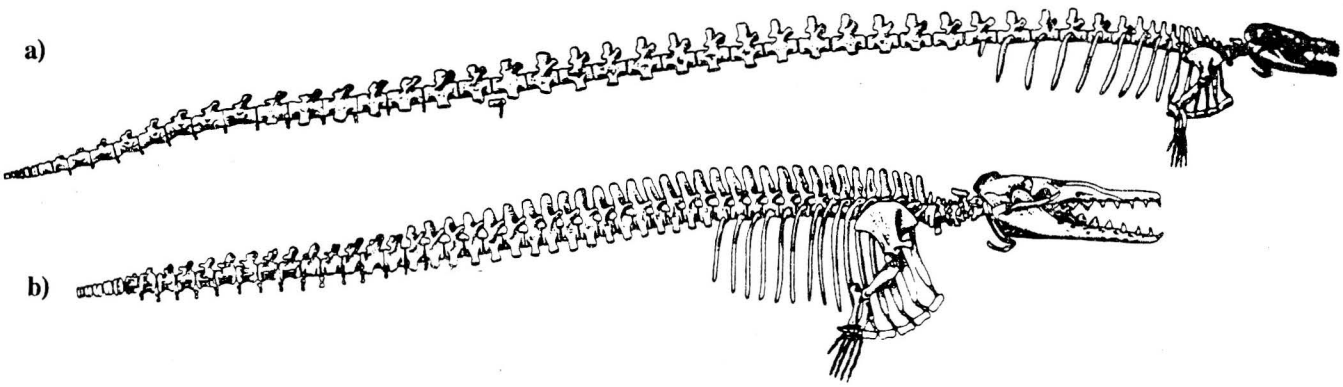
Carcharocles auriculatus
lower anterior tooth



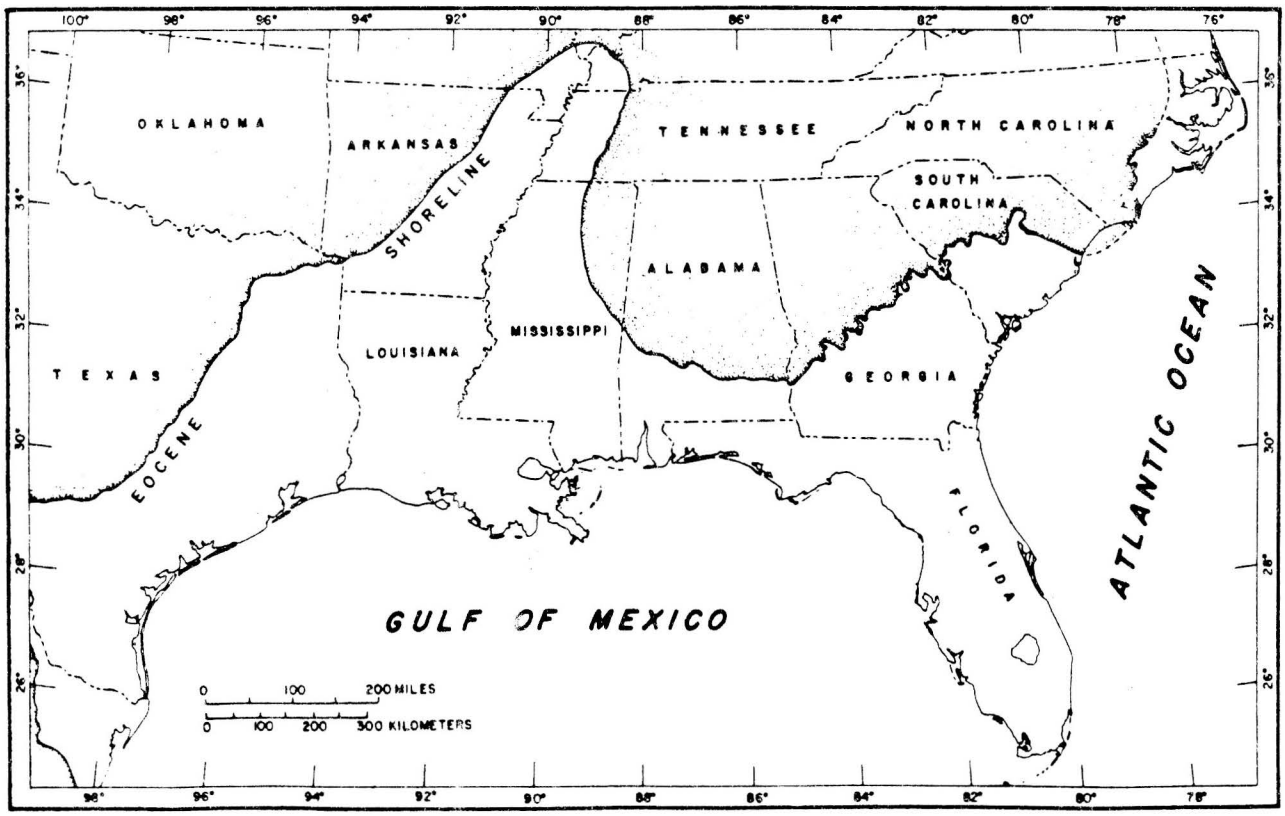
Hemipristis curvatus
upper lateral tooth

head, however, was relatively small for its body size. The third Eocene whale from Florida can be referred to as the headless archaeocete because no skull material has ever been found from this beast. The vertebra show that it was similar in size to *Basilosaurus* but may have had proportions more like those of *Zygorhiza*. All three whales are very rare in Florida.

The Eocene vertebrates of Florida are fairly rare and most are not very well known but nevertheless they are unusual and interesting, and it is well worth the effort in searching for them.



Upper Eocene archaeocete whales: a) *Basilosaurus* (60 ft.), b) *Zygorhiza* (18 ft.).



Map showing shoreline of S.E. U.S. during the Late Eocene

FPS FALL MEETING INFORMATION AND AGENDA
October 29, 1994

The Fall Meeting of the Florida Paleontological Society will be held Saturday, October 29, 1994 in Gainesville Florida. This year's meeting theme is the famous Thomas Farm site, a rich Miocene vertebrate deposit.

The tentative schedule of events is outlined below. Featured are a series of talks on the paleontology of the Thomas Farm site, followed by an afternoon museum tour and fossil identification clinic. An early evening banquet dinner and fossil auction will top off the day's events.

Our original plans included a non-collecting tour of the Thomas Farm site. Unfortunately, the logistics of this visit could not be worked out. We apologize for any inconvenience this change may have caused.

As some individuals have already discovered, the unfortunate decision to move the Georgia-Florida football game to Gainesville this year has further complicated our meeting planning. The game has already caused motel accommodations to be very scarce and high-priced. For those traveling some distance to the meeting, we suggest staying in nearby towns such as Ocala or Palatka, which should be affected less by game traffic. Information on accommodations in these cities is provided in this issue. For most attendees, we recommend returning home the same day.

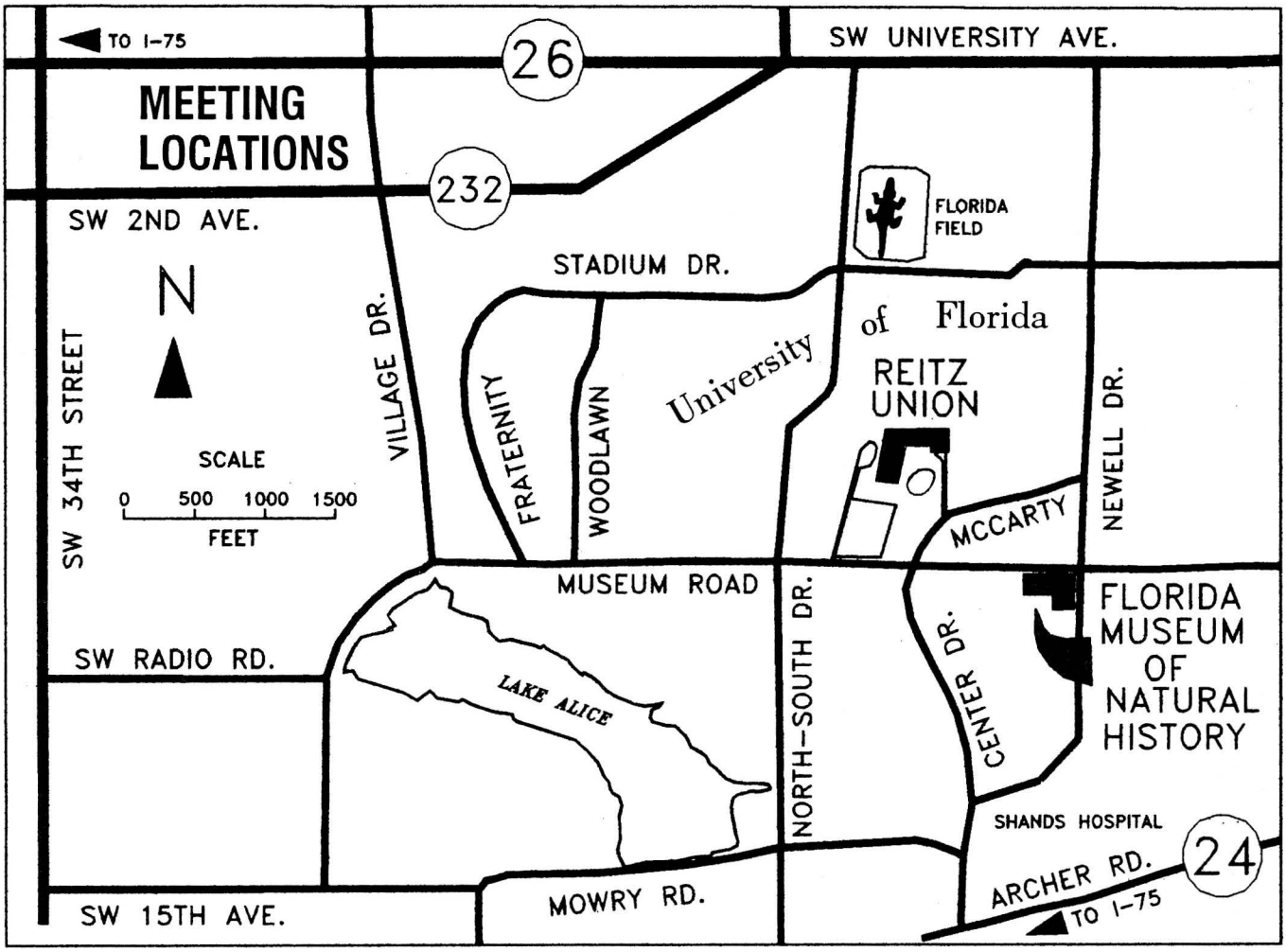
Traffic congestion on campus will be high, but there will be ample parking during the morning. A map to the museum is provided herein. Although we do not know the game starting time yet (which is at the whim of the TV network) we believe it will be at 3:00 P.M. This should work out fine for meeting attendees, as they will already be parked and all planned events are in walking distance of the museum. The following schedule summarizes the day's events.

Saturday, October 29:

8:30 AM	Coffee and Donuts in the Theatre, Reitz Union (one block west of Museum), University of Florida.
9:00 AM-10:30AM	Talks on the Paleontology of the Thomas Farm Fossil Site.
10:30AM	Coffee Break
11:00AM-12:00	Business Meeting and election of officers.
12:00-	Lunch on your own. Reitz Union is simplest. The Museum Associates will be hosting a special Barbecue in the Museum Courtyard, three hours prior to game time. Cost is $15.00 on the spot. The Board of Directors will meet over lunch at the Museum.
2:00PM	Reconvene at the FLMNH, upper level, for tours, demonstrations, and a fossil identification clinic hosted by museum paleontologists. Bring your fossils with you!
6:00PM	Banquet dinner at the Arredondo Room, Reitz Union. See attached reservation form for information.
7:30PM-?	Annual Fossil Auction. Bring your donations for this fun-filled event.

If you plan to attend, please complete the attached meeting registration form and return it with any appropriate payment to the indicated address by no later than October 15, 1994. Please be sure and indicate your food preference.

The following pages provide maps to the museum and Reitz Union, and information on area accommodations. We suggest that you arrive as early as possible and plan on leaving your car in place, if possible, until the conclusion of the meeting. By doing so you will likely miss the congestion caused by football game traffic.



Accomodations

Due to the influx of football fans, many motels in the Gainesville-Lake City area are fully booked. Those with rooms may charge elevated rates. If you plan to stay overnight in the area, we suggest reserving a room as soon as possible. You might try motels in nearby towns such as Ocala or Palatka, which are approximately 45 minutes away. Some motels in each town are listed below.

GAINESVILLE (Area Code 904)

Bambi Motel, 2119 SW 13th St., 376-2622
Cabot Lodge, 3726 SW 40th Blvd., 375-2400
Cape Cod Inn, 3620 SW 13th St., 371-2500
Casa Loma Lodge, 2000 SW 13th St., 372-3654
Comfort Inn, 2435 SW 13th St., 373-6500
Days Inn, I-75 & US 441 (Alachua), 462-3251
Econo Lodge, 2649 SW 13th St., 373-7816
Fairfield Inn, 6901 NW 4th Blvd., 332-8292
Florida Motel, 2603 SW 13th St., 376-3742
Gainesville Lodge, 413 W. University Ave., 376-1224
Gator Court Motel, 4170 SW 13th St., 376-4667
HoJo Inn, 1900 SW 13th St., 372-1880
Howard Johnson, I-75 & SR 26, 332-3200
Holiday Inn, 7417 NW 8th Ave., 332-7500
Knights Inn, 4201 SW 40th Blvd., 373-0392
La Quinta, 920 NW 69th Terr., 332-6466
Ranch Motel and Camping Park,
Hwy 301, (Hawthorn), 481-3851
Rush Lake Motel, 1410 SW 16th Ave., 373-5000
Sands Motel, 2307 SW 13th St., 372-2045
Scottish Inn, I-75 exit 33 (Micanopy), 466-3163
Travelodge, 3103 NW 13th St., 372-4319

OCALA

Budgetel Inn, 3701 SW 38th Ave., (904) 237-4848.
Budget Host, I-75 & US 27 W., (904) 732-6940.
Days Inn, 4040 W. Silver Sprgs. Blvd, (904) 629-8850.
Hampton Inn, 3434 SW College Rd., (904) 854-3200.
Holiday Inn, 3621 W. Silver Spgs. B., (904) 629-0381.
Howard Johnson, I-75 & SR 200, (904) 237-8000.
Quality Inn, I-75 & US 27, (904) 732-2300.
Travelodge, 1626 SW Pine Ave., (904) 622-4121.

PALATKA

Holiday Inn, 201 N. 1st St., (904) 328-3481.

FPS Fall Meeting Registration Form

If you plan to attend, please complete this form and return by October 15, 1994

NAME _____

ADDRESS _____

CITY _____ STATE _____ PHONE _____

For our planning purposes, please complete the following:

I (We) plan to attend (circle all applicable): *Business Meeting/Talks* *Museum* *Banquet Dinner*

Banquet Dinner Reservation: (please fill in appropriate numbers of people and amounts):

_____ Adults X $16.00 = _____

_____ Children X $14.00 = _____
(under 12 yrs.)

TOTAL _____

For all the individuals in your party, indicate below the **number** wanting chicken or beef:

_____Chicken Macadamia _____ Flank Steak Roulade

Send this form to the address below no later than **October 15, 1994**. If you are attending the banquet dinner Saturday night, please enclose a check for the total amount, payable to **Florida Paleontological Society.**

Phil Whisler, Treasurer
Florida Paleontological Society
Florida Museum of Natural History
University of Florida
Gainesville, FL 32611

Cut out and return form

The Thomas Farm Fossil Site

The theme of this year's Fall Meeting is the vertebrate fauna from the famous Thomas Farm site in western Gilchrist County, Florida. For the past 60 years this classic "dig" has yielded a rich and diverse middle Miocene fauna. The following summary is excerpted largely from Puri et al., (1967), and from Plaster Jacket *articles by Patton and Webb (1970) and Webb (1981)* - Frank Rupert.

The Thomas Farm locality is situated in northern Gilchrist County, on what was once part of a farm owned by Mr. Raeford Thomas (Figure 1). It lies

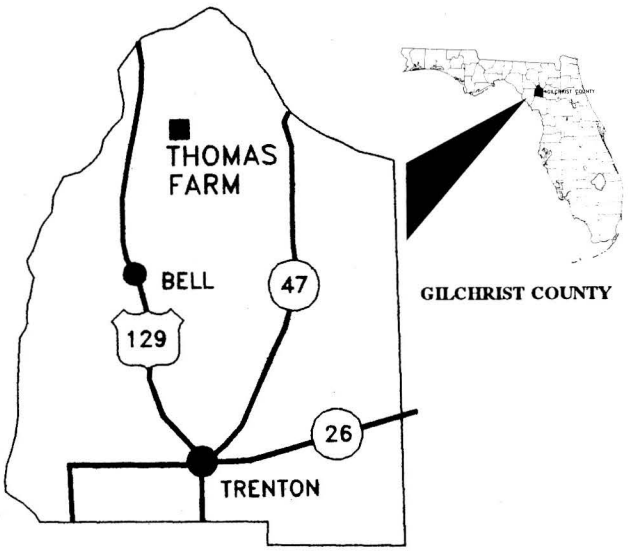


Figure 1. Thomas Farm location map.

within the Gulf Coastal Lowlands geomorphic zone, which is locally characterized by shallow, karstic, Eocene limestone overlain by Miocene through Pleistocene clastic sediments. Figure 2 shows a topographic map of the site prepared by Florida Geologists in 1956. The entire region was inundated by high-standing Pleistocene seas, resulting in erosion of the original land surface and reworking of the older sediments. Many of the shallow sediments fill karst depressions in the underlying limestone. Fossil excavations at the Thomas Farm site have uncovered pinnacles of Eocene age Ocala Limestone protruding upwards through the fossiliferous strata.

The fossil bearing sediments are generally variably-colored, waxy, fossiliferous clayey sands and sandy clays of Miocene and younger age. These strata were originally assigned to the Alachua formation, an informal unit of widely varying age (Puri et al., 1967). However, the Alachua formation likely represents reworked and redeposited Hawthorn Group sediments (Scott, 1988), thus explaining the presence of Miocene through Pleistocene fossils in this unit.

Vertebrate fossils were first discovered at Thomas Farm in 1931 by Florida Geological Survey paleontologist Clarence Simpson. Early excavations of the site were undertaken by FGS personnel. Between 1939 and 1956, the site was owned and worked by the Harvard Museum of Comparative Zoology. Large collections of vertebrate fossils from Thomas Farm are housed at both Cambridge and the FLMNH in Gainesville.

The fauna described from Thomas Farm is unique in both abundance and diversity. Many species are found only in Florida and the Gulf Coastal Plain. Represented are a wide range of Miocene species, including amphibians, reptiles, fish, birds, and both large and small mammals. The hoofed animals found here are particularly interesting, and digs at the site in recent years have focused on the fossil horses. Faunal comparisons place the age of the Thomas Farm Local Fauna near the middle Hemingfordian (Tedford and Frailey, 1976).

The ancient feature responsible for the accumulation of fossils has been a source of debate. Early theories (Simpson, 1932 and White, 1942) suggested sinkhole fill and a stream deposit respectively. The faunal assemblage present and the well-preserved condition of many delicate fossils lead later authors (Auffenberg, 1963; Patton and Webb, 1970; and Webb, 1981) to agree with Simpson's sinkhole fill theory. A variety of niches are represented by the Thomas Farm fossil fauna, which includes aquatic forms, cave dwelling species, and land mammals. These fossils likely accumulated over time, through several stages in the evolution of the sinkhole, which may have had a cave and possibly an ancient stream associated with it.

Today the Thomas Farm site remains one of the most prolific Miocene sites in the southeast. It is managed by the University of Florida Zoology

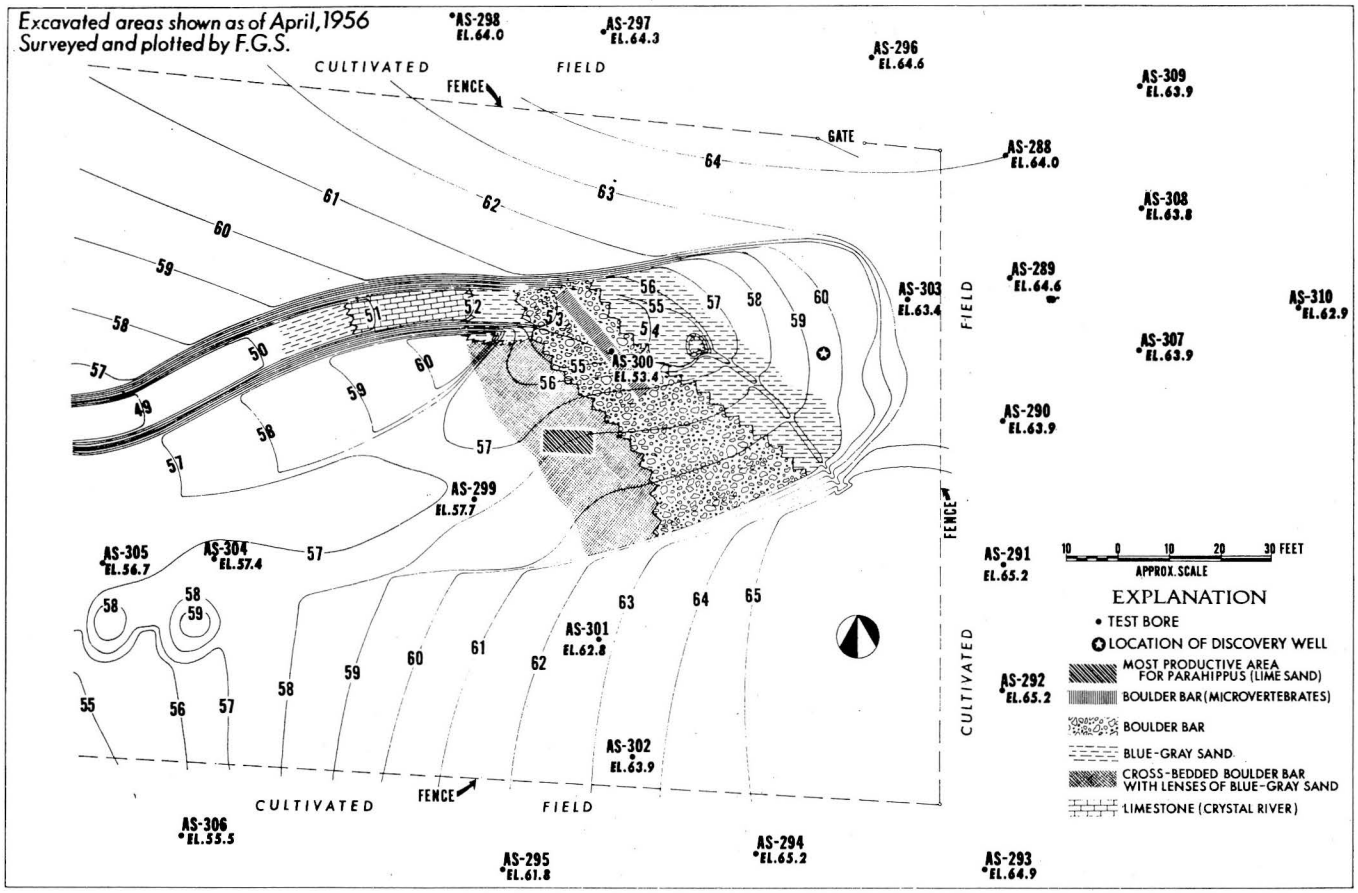


Figure 2: Topographic map of the Thomas Farm Site (from Puri et al., 1967).

Department, and is strictly protected. Access is generally granted only to qualified researchers. Special amateur-assisted digs are occasionally held by paleontologists at the Florida Museum of Natural History.

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Puri, H., Yon, J.W., and Oglesby, W.R., 1967, Geology of Dixie and Gilchrist Counties, Florida: Florida State Board of Conservation, Division of Geology, Geological Bulletin 49, p. 114-126.

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Editor's Note: Eric Prokopi is one of this year's FPS Student Research Award recipients. He prepared the following summary on his research for inclusion in the newsletter.

New Research on Florida Fossil Sharks and Rays

by Eric Prokopi

In 1969 Norm Tessman completed his thesis on the fossil sharks of Florida. In the twenty-five years since, nothing of any scientific value has been published on the subject. This is very surprising since Florida has such a rich and diverse shark fauna. Florida is way behind in the understanding of its fossil sharks because no specialist in fossil sharks has ever resided in the state or sustained a long term study here. When I began to study fossil sharks and rays several years ago, I realized just how poorly understood their relationships and identifications were. I am now in the process of writing a comprehensive book on Florida's fossil sharks and rays - something that is long overdue.

This summer I used the FPS research grant for to travel around the state and study specimens in various private and public collections. A good sample of almost every important shark tooth locality in the state was represented in at least one collection I looked at. I also did some field work at sites that were not well enough represented in any collection including: White Springs (late Oligocene), Seminole Springs (late Oligocene), Wintergarden (early Pliocene), and the Waccasassa River (Eocene and Pleistocene). Some of the more interesting things I saw were:

1) *Paratodus benedini* from APAC shell pit, Bone Valley, the Jacksonville area, and the Chipola River

2) A new species of *Paratodus* from the Oligocene of the panhandle, previously known from a few specimens from South Carolina and Europe.

3) Two species of nurse shark from Oligocene deposits.

4) A specimen that shows the transition from *Isurus hastalis* to *Carcharadon carcharias*, the living great white (*Isurus hastalis* is properly referred to as a great white).

5) Several species of thresher shark from many localities

6) A new species of *Plinthicus* (manta-like ray) from the early Oligocene; *Plinthicus* has never been reported from earlier than the latest Oligocene.

7) Seminole Springs contains a very rich and diverse late Oligocene shark fauna (one of only two rich Oligocene shark localities in North America).

Following is an up-to-date checklist of sharks and rays known from the fossil record of Florida. The checklist follows the format of Hulbert's (1992) Checklist of the Fossil Vertebrates of Florida. This checklist has about 2.3 times as many species as the previous list, increasing the number of known fossil sharks in Florida to seventy-five. The list follows the classification used by Cappetta (1987) and Compagno (1984).

Class Chondricthyes
Subclass Elasmobranchii
Cohort Euselachii
Subcohort Neoselachii
Superorder Squalomorphii
Order Hexanchiformes
Suborder Hexanchoidei
Family Hexanchidae (cow sharks, six/sevengill sharks)
Notorhynchus cepedianus lMIO-ePLIO
Superorder Squatinomorphii
Order Squatinaformes
Family Squatinidae (angel sharks)

Squatina sp.	lMIO?
SuperorderGaleomorphii	
Order Orectolobiformes	
Family Ginglymostomatidae (nurse sharks)	
Ginglymostoma sp.1	eOLIG, lmMIO
Ginglymostoma n. sp.	eOLIG
Ginglymostoma sp.2	mMIO-lMIO
Order Lamniformes	
Family Odontaspididae (sand tiger sharks)	
Carcharias vincenti	lEOC
Carcharias hopei	lEOC
Carcharias cuspidata	eOLIG-lOLIG, ?eMIO
Carcharias taurus	elMIO-RECENT
Carcharias sp.	lmMIO
Family Lamnidae (mackerel sharks)	
Carcharodon carcharias	PLIO-RECENT
Isurus praecursor	lEOC-eOLIG
Isurus oxyrinchus	lmMIO-RECENT
Isurus paucus	lMIO, RECENT
Isurus hastalis	lmMIO-lePLIO
Family Cretoxyrhinidae (extinct mackerel sharks)	
Cretolamna twiggsensis	lEOC
Family Otodontidae (extinct giant mackerel sharks)	
Carcharocles auriculatus	lEOC-eOLIG
Carcharocles sp.	lOLIG-lmMIO
Carcharocles megaladon	elMIO-ePLIO
Parotodus n. sp.	lOLIG
Parotodus benedeni	lMIO-lePLIO
Family Alopiidae (thresher sharks)	
Alopias sp.1	eOLIG-lOLIG
Alopias sp.2	eOLIG-lOLIG
Alopias vulpinus	lmMIO-lMIO, RECENT
Order Carchariniformes	
Family Scyliorhinidae (catsharks)	
Scyliorhinus sp.	vlMIO
Family Hemigaleidae (weasel sharks)	
Hemipristis elongatus	lEOC-eOLIG
Hemipristis n. sp.	lOLIG
Hemipristis serra	leMIO-vlPLIO
Family Carcharhinidae (requium sharks)	
Isogomphodon sp.	eOLIG
Carcharhinus gibbesi	lEOC-eOLIG
Carcharhinus sp. 1	eOLIG-lOLIG
Carcharhinus n. sp. 1	lOLIG
Carcharhinus brevipinna	leMIO-RECENT
Carcharhinus priscus	leMIO-lmMIO
Carcharhinus n. sp. 2	leMIO-lmMIO
Carcharhinus sp. 2	leMIO-emMIO
Carcharhinus leucas	lmMIO-RECENT
Carcharhinus obscurus	lmMIO-RECENT

Carcharhinus limbatus	lmMIO-RECENT
Carcharhinus plumbeus	lmMIO-RECENT
Carcharhinus isodon	lmMIO, RECENT
Carcharhinus falciformis	lMIO, RECENT
Carcharhinus acronotus	vlPLIO, RECENT
Galeocerdo latidens	lEOC-eOLIG
Galeocerdo mayumbensis	lOLIG-lmMIO
Galeocerdo cuvier	lMIO-RECENT
Galeocerdo aduncas	lOLIG, leMIO-elMIO
Negaprion amekiensis	lEOC-eOLIG
Negaprion eurybathrodon	lOLIG-emMIO
Negaprion brevirostris	lmMIO-RECENT
Physogaleus sp.	lEOC-eOLIG
Rhizoprionodon sp.	eOLIG-lOLIG, leMIO-RECENT
Sphyrna sp.	eOLIG-lOLIG
Sphyrna zygaena	leMIO-lMIO, RECENT
Sphyrna lewini	lMIO-lPLIO, RECENT
Sphyrna mokarran	lPLIO-RECENT
Genus and sp. indet.	lmMIO
Superorder Batomorphii	
Order Rajiformes	
Suborder Rhynchobatoidei	
Family Rhynchobatidae (guitarfishes)	
Rhynchobatis sp.	lOLIG, emMIO-lMIO
Suborder Rajoiidei	
Family Rajidae (skates)	
Raja sp.	MIO, RECENT
Suborder Pristiodei	
Family Pristidae (sawfishes)	
Anoxypristis sp.	lOLIG
Genus and sp. indet.	lOLIG
Genus and sp. indet.	lMIO
Pristis sp. 1	eOLIG-lOLIG
Pristis sp. 2	lOLIG, leMIO-RECENT
Order Myliobatiformes	
SuperfamilyDasyatoidea	
Family Dasyatidae (stingrays)	
Dasyatis sp.	lOLIG, leMIO-RECENT
Superfamily Myliobatoidea	
Family Myliobatidae (eagle rays)	
Aetobatis sp.1	lEOC
Aetobatis sp.2	eOLIG-lOLIG
Aetobatis sp.3	emMIO-lmMIO
Aetobatis sp.4	ImMIO-RECENT
Myliobatis sp.1	lEOC-lOLIG
Myliobatis sp. 2	lOLIG, leMIO-lmMIO
Myliobatis sp.3	lmMIO-RECENT
Family Rhinopteridae (cow-nosed rays)	
Rhinoptera sp.	eOLIG-lOLIG, leMIO-RECENT
Superfamily Mobuloidea (manta rays, devil rays)	

Family Mobulidae	
Plinthicus n. sp.	eOLIG
Plinthicus stenodon	lOLIG, mMIO

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FLORIDA PALEONTOLOGICAL SOCIETY, INC.
APPLICATION FOR MEMBERSHIP

Mail completed form to: Florida Paleontological Society
Florida Museum of Natural History
University of Florida
Gainesville, FL 32611

NEW_____ RENEWAL_____ MEMBER NUMBER (From Label)_____

NAME _____
ADDRESS _____
CITY _____
STATE _____ ZIP CODE _____ TELEPHONE (___)-___-____

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:

	VERTEBRATE	INVERTEBRATE	BOTANY	MICRO
PLEISTOCENE	__	__	__	__
PLIOCENE	__	__	__	__
MIOCENE	__	__	__	__
OLIGOCENE	__	__	__	__
EOCENE	__	__	__	__
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 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.