



JANUS

THE NEWSLETTER
OF THE
NORTH CAROLINA
FOSSIL
CLUB

1997 NUMBER 3

Fall, 1997 Calendar

August

30 PCS Lee Creek Call-In

September

- 13 ♠ PCS Lee Creek Mine – Aurora, NC
Contact: John Timmerman (910) 452-0943
- 25 ♥ Martin Marietta Quarry, Castle Hayne, NC
Contact: John Everette (919) 847-4485

October

- 5 ♦ Green's Mill Run, Greenville, NC
Contact: Doug Meier (919) 872-0529
- 23 ♥ Martin Marietta Quarry, Rocky Point, NC
Contact: John Everette (919) 847-4485
- 26 ♣ NCFC Meeting, NC State Museum of Natural Sciences, Raleigh, NC 1:30 - 5:00

November

- 8 ▼ NCFC Fossil Expo, NC State Museum of Natural Sciences, Raleigh, NC 10:00 - 4:00
- 16 ● Martin Marietta Quarry, Belgrade, NC
Contact: Richard Tellekamp (910) 347-6361

December

- 6 ★ Boren Clay Mine – Gulf, NC
Contact: Ashley Davis (919) 782-7890

♠ PCS Lee Creek Mine (Texasgulf): Members 18 and over only! Reservations required!! Call-in date: August 30. Members who did not go on the Spring, 1996 trip may call no earlier than 8:00AM. Members who went on the

- All trips begin at 9:00 AM at the site. Exceptions: Rocky Point, Castle Hayne - 11:30AM.
- Guests and children (if accompanied by a responsible adult) are welcome on any trip except PCS – Lee Creek Mine.
- The Rocky Point and Castle Hayne sites require (and do not provide) hardhats.
- You are expected to inform the contact person if you plan to go on a trip, even those with no restrictions on the number of positions.
- If your plans change it is imperative that you let the contact person know; several trips a year are delayed waiting for no-shows.

Spring, 1997 trip may call no earlier than 10:00AM. For you to be eligible for this trip, the membership chairpersons must have your 1997 dues in their hands no later than August 29. Callers may sign up no more than two persons per telephone call. Non-North Carolina members are limited to no more than 15 positions. This trip is very popular; be prepared for fierce competition for the slots. As promised, members who participated in the North Carolina Fossil Club displays at the 1997 Aurora Fossil Festival have first refusal for the September 13 collecting trip at PCS Phosphates, Aurora. Qualifying persons may call me, trip leader, John Timmerman (910) 452-0943 at any time before the official call-in date to reserve their spot. This priority is limited to only those members who participated in this event, we cannot accept reservations for other members who were not there. Whether you went on the spring 1997 trip or not has no bearing on your qualification for his trip. If you have not contacted me by the official call in time I will assume that you cannot take the club up on this offer and will fill your position during the general call in. The following members qualify for the priority call in: Steve Ames, Thelma Bennett, Richard Chandler, Betty Hamill, Burl Hammock, Uwe Heine, Candace Holliday, Rufus Johnson, Trish Kohler, Ramona Krailler, Judy Larrick, Bill Little, Wendy Marshall, Rita McCabe, Tom McCabe, Caroline O'Hern, Bobby O'Hern, Joy Pierce, John Smith, Janie Smith, Raymond Smith, Tricia Smith, Bob Stevens, Judy Stiles, Richard Tellekamp, John Timmerman.

♥ Note Thursday date.

♦ Note Sunday Date. Fossils are collected in Green's Mill Run by sieving material you dig out of the streambed. You will need a screen (1/4" mesh), a long-handled shovel, and sturdy shoes which can end up wet (waders are best).

♣ NCFC Meeting: James Lamb, Ph.D. student at NC State University, will speak on "Gulf Coast Dinosaurs". Before the talk there will be a business meeting and after the talk there will be plenty of time for socializing, show-and-tell, and refreshments (provided). Come and support the club.

▼ Fossil Expo, 1997: Our annual Fossil fair will be held at North Carolina State Museum of Natural Sciences. It is a one day event. Contact Vince Schneider (919) 779-9338

if you have questions about it. The Club hopes members will try to put together a simple, yet educational exhibit, rather than pulling a few drawers out of one's cabinet to display. Submit exhibit proposals to Vince. Do not let this request scare you away. Even if you do not know all the Latin binomials like the "experts", common names will make your exhibit more meaningful for the public. Your fossils do not have to be from North Carolina, in fact fossils from other parts of the country or world are welcomed since they give a greater spectrum of paleontology. Members displaying or helping out by sitting tables so exhibitors can take breaks will have first refusal on the next PCS trip the club offers (probably spring 1998).

As at previous Fairs, the Smithsonian Institution and NC Museum of Natural Sciences will have representatives to identify your mystery fossils. In addition, universities from North Carolina will be present talking about their programs in paleontology and related areas. We will also try to identify artifacts. We plan to have children's activities, raffles, and a semi-organized swap session (for members only). Following the Fair there will be a short business meeting for the purpose of electing a President and half the Board. **Please plan to come.** This is our major event of 1997.

● The Belgrade quarry has been so busy the best accommodation is on Sunday. This is the trip for a beginner and also the best trip for children. Guests are welcome, just let Richard know what to expect.

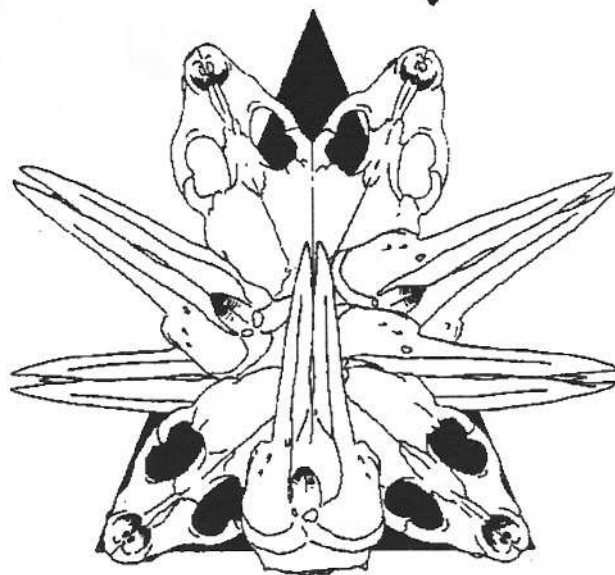
★ Ashley Davis must have a completed permission form for each person going on the **Boren Clay Pit** trip at least one week prior to the trip date. One is supplied in this issue of *Janus*. Fill it out, sign and send it to him (5809 Chelsea Place, Raleigh, NC 27612) or FAX it to him (919-782-2134) so that he receives it no later than Nov. 29.

Note: I am including in this issue of *Janus* a copy of the original By-Laws for the North Carolina Fossil Club, Inc. Several members have expressed concern that club operations have deviated from those specified in the by-laws. We should carefully review the rules for Club procedures and decide if amendments are needed. This will be discussed at the winter meeting (to be announced in *Janus* 1997#4), so if you have thoughts on this, attend the meeting or discuss them with Board members.

Following the winter meeting, if amendments are proposed, the membership will be informed as specified in the By-Laws. A follow-up meeting will then be scheduled for the purpose of discussion and enactment of amendments.

Richard Chandler

Seal/Dolphin



Phoca/Stenella

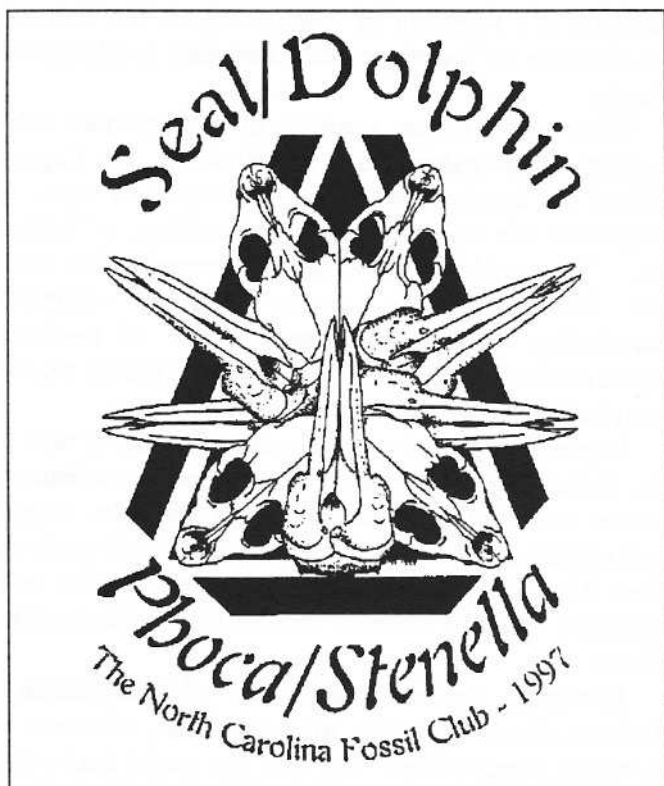
A Skeletal Comparison of Two Marine Mammals

John R. Timmerman

At last the long-promised book comparing the skeletons of the seal and dolphin is almost ready. If everything continues according to plan, release will be September 13, 1997. Price: \$10 per book. Mail order after 9-13-97 for \$13.00. Make check or money order payable to North Carolina Fossil Club and address to Joy Pierce, 4309 Abbey Place, Durham, NC 27707.

The book has 76 pages, most heavily illustrated, 8.5" x 11" format. Two sample pages are included here. The first is an example of original layout as I drew the specimens. The second is the resulting arrangement when laid out in the book. I dealt with each section in exhausting detail. Skulls are shown similar to the back page illustrations of other mammals I've been drawing for *Janus* this year. However I have used much greater depth with this book. I think it will be a great help to fossil collectors identifying these often mystifying bones. I already have identified two seal bones from my collection which I had not known before this project.

Accompanying the book will be a new T-shirt which will also be available on Sept. 13 from Joy Pierce. Price = \$10.00. The design is similar to the book cover:



John Timmerman

It's that time of year again. Jobs need to be filled.

As members of the North Carolina Fossil Club, we enjoy spring and fall collecting schedules. We receive *Janus*, the club newsletter. we can hear guest presentations. We hear about new books that appeal to the hobbyist. We have the opportunity to purchase new books, or vinac, or artfully created T-shirts at special prices. We can show what we find at a fossil fair or can go see what others have collected. We can personally interact with experts from the Smithsonian or our local museums. We get new membership cards each year and if we have a new member, that member receives a special mailing. Other perks could be listed.

The NCFC has now grown to a large membership of more than 350 individuals in about 280 households.

All of our club activities are planned and conducted by members who volunteer. The club needs leadership and ideas. We also need support and energy. Maybe you would be willing to fold or stamp mailings, make reminder calls to members or take calls for a trip outing, exhibit your collection at the fossil fair, or relieve those who do exhibit, write an article, give a presentation, or suggest new activities or a new collecting site.

Don't wait to be asked and don't feel that you need to live in any particular part of the state, or even in the state, to make a contribution. Express your interest and willingness to John Timmerman, our current president. Do it now. Please don't feel hesitant about stepping forward. You are needed. Yes, that means YOU.

We will have elections soon. John's position as president is one that will need to be filled. See the by-laws printed in this issue for guidelines that concern elections. Please don't feel hesitant about stepping forward. You are needed. **SPEAK UP!** A club with 350 members has a lot of hands. Can you lend yours? Joy Pierce

Others have written about the special camaraderie among fossil collectors. Gratefully, I would like to share with you several of my experiences where collectors have shown me great kindness and generosity. The first two installments are about Frenchmen. John Smith

Installment 1. Pierre Zennaro.

On Sunday June 22, 1997, I met in person Pierre Zennaro. Pierre lives in St. Pierre, near Marseilles in Southern France. I first *conversed* with Pierre only two weeks ago, through the internet to negotiate logistics on my proposed visit to see his collection and interview Dr. Henri Cappetta (to be discussed in Installment 2). Previously, Pierre and I knew each other only by trading fossil shark teeth through Richard Chandler, because Richard had traded with Pierre and had access to the internet. I also enlisted the services of a long time friend, but not a fossil collector, in Lyon France, Dr. Pierre Claudy, who provided essential translation and other logistical assistance without which my visit may have been much less successful and far less enjoyable.

Let me start out by saying that Pierre Zennaro is, in a paraphrase of his own words, "an admirer of these beautiful things called shark's teeth," a most gracious host, and a very kind man. After only with two internet conversations and several telephone calls with Dr. Claudy, Mr. Zennaro picked me up at the train station in the busy city of Marseilles early Sunday morning on the same day he was expecting a visit from old friends from Morocco. Pierre gave me a short tour of Marseilles, took me to a collecting site, took me into his home (a renovated 250 year old country house), fed me, showed me his collection, and on the next day took me about one hundred miles to Montpellier, to interview his friend, Dr. Henri Cappetta. Although Pierre considers his English halting and encouraged me to speak French, his English was excellent and he tolerated my unwillingness to use anything but the most limited French.

Pierre began collecting thirty-five years ago when he worked for Office Chérifien des Phosphates, a Moroccan company with foreign staff at the phosphate mines in Morocco. After ten years and Moroccan nationalization of the mines, Pierre returned to France to work for twenty five years for a chemical manufacturing company before his recent retirement. In Morocco Pierre noticed the shark teeth in the mines and began to collect these interesting fossils. Pierre has thousands of fossil shark teeth from several different world-wide locations, but the major part

of his collection is from Morocco. Pierre has built his collection by trading shark teeth he collected and purchased in Morocco. He has personally collected in France, Belgium and Morocco. There are several collecting sites not too far from St. Pierre, but collecting is intermittent depending on a number of factors including access to sites and the selfishness of other collectors. Also, he has collected from phosphate shipped from Egypt and Jordan to chemical companies near his home. In his retirement Pierre has been able to more acutely focus his attention on his collection.

Pierre's collection is housed in a room surrounded by mementos from Africa, modern shark jaws, modern sawfish rostra, exhaustive references on fossil shark teeth, his collection, a desk and a work table with a microscope. His collection is organized by locality in taxonomic order. He has a computer-based catalog of his entire collection from which specimens can be located through a number of different sorting/searching procedures. He has large *C. megalodon* specimens, from Lee Creek and also from Belgium. He acquired the Lee Creek specimens, among others, through trades with Gerard Case. More interesting to me were his exhaustive collection of smaller fossil shark and ray teeth from many different locations. I videoed a number of the larger fossil teeth from his collection and also have several still photos, if any one is interested.

It was much more recently that Pierre meet Dr. Cappetta. Pierre and Dr. Cappetta share each other's knowledge and have a constructive collector-researcher relationship. If you check the acknowledgments in Dr. Cappetta's book *Mesozoic and Cenozoic Elasmobranchii* in Handbook of Paleoichthyology, Chondrichthyes II, 3B, Pierre Zennaro is the last reference. The two recently returned from a collecting trip in Morocco. There will be more about their collecting in Morocco in another installment.

Pierre willingly shared his knowledge and his extra specimens with practically a total stranger, who turned out to be an avid shark tooth collector and "an admirer of these beautiful things called shark's teeth," who couldn't even speak his language. Pierre's excitement at the possibility of obtaining new species and new knowledge was contagious. We should all strive to be such helpful ambassadors to others in our hobby, those interested in learning about our hobby, and research paleontologists, as Pierre Zennaro has proven to be. My visit and friendship with Pierre Zennaro will always be a cherished memory.

Installment 2. Dr. Henri Cappetta

Dr. Henri Cappetta first became interested in fossils when he was a boy. There were fossil localities near his home and at first his father took him collecting. Later he was able to get to sites on bicycle. He studied paleontology in college in Sete and later in graduate school. He

currently is a Professor of Paleontology at the Université des Sciences et Techniques du Languedoc in Montpellier, France.

When asked for an example of an important solved problem in the paleontology of selachians, Dr. Cappetta offered the development of the systematics of rays. He added that this was a very complex problem, a "bottle of ink". The problem was solved by comprehensive studies and histology. The studies included microscopic examination of polished cross sections of specimens. These studies demonstrated that specimens having the same morphology might have very different histology.

Important unsolved problems are the range of taxa and the phylogeny of selachians. Dr. Cappetta continues his studies to solve these problems. Very soon, Dr. Cappetta will publish a new work on ray teeth and small shark teeth from Morocco. Another work near publication is the selachian fauna of the early Albian to the Campanian of Texas.

Upcoming studies include the characterization of Lutetian sharks and rays from Talahatta, Alabama collected by Gerard Case. By now you might have noticed that Dr. Cappetta refers to the dating of fossils by the formation rather than the geologic period, that is, Lutetian rather than Late Eocene. Another work in progress is the fauna of the Lutetian in southwestern France near Landes, south of Bordeaux. This French deep water locality is thought to have been deposited at depths of approximately 1,000 meters. The fossil fauna were discovered, as many scientific discoveries are, by accident. Dr. Cappetta was searching for a quarry in Cretaceous strata and found a gray marl quarry where he discovered nummulites in the face of the quarry. Approximately ten kilograms of bulk sediment were brought back to the laboratory and washed. Many small squalidae were found. One fossil shark tooth was a splendid complete chlamydoselac (frill shark) with very distinctive multi-cusped clutching teeth. Since the initial discovery, Dr. Cappetta has processed from 800-900 kilograms of sediment from the locality. Dr. Cappetta has three graduate students assisting him with his studies, one in Lyon, France; another in Paris; and the third in the Czech Republic.

I asked Dr. Cappetta where his favorite collecting site was. Initially, the site was in Loupian, France. Now, twenty years later, Pierre Zennaro's inspiration has resulted in Dr. Cappetta favoring collecting in Morocco. Dr. Cappetta was first interested in Moroccan teeth to compare the fossils there with fossils from other localities. However, now he is interested in characterizing the selachian fauna there, known to date to be approximately 270 separate species with description not yet complete.

I asked two theoretical questions of Dr. Cappetta: (1) what did the Eocene top predator *Otodus obliquus* eat; and (2) how many top selachian predators were that during

each period of the Eocene? To the first question, he answered sharks, rays, and bony (teleost) fish, whose fossil remains are also plentiful at these sites. He said there were fossil remains of turtles at many of these sites, but the only known modern shark to eat turtles was the tiger shark (*Galeocerdo cuvier*). His answer to the second question was one.

Dr. Cappetta examined some of the many fossil shark teeth that I brought with me, which I had been unable to identify from the resources I had. It seemed that he took a particular interest since he found that I am interested, as he is, in smaller teeth. His knowledge is bolstered by having personally seen many type specimens and his own study collection in his office. It was a treat, for example, when I asked him to differentiate between *Galeocerdo latidens* and *G. eaglesomei* to see upwards of twenty complete specimens from Togo for a comparison. For those interested, the former species has stronger (deeper) serrations, a more obtuse angle on the distal cutting edge, and more serrations on the distal cutting edge. Without a side by side comparison, differentiation would be difficult. In my opinion, I probably would lump the two species. It seems that they might more likely be races or subspecies without more skeletal remains. Interesting highlights from my specimens were identification of a small *Carcharoides caticus* and *Alopias exigua* from Lee Creek, with other uncharacterized scylliorhinids and triakids indicated. From another locality, a *Hexanchus* species assigned did not match the type species and should be not be identified as characterized. Similarly, teeth given the species name *Scylliorhinus gilberti* should be the new genus *Premontreia* with species not characterized. *S. gilberti* was present at this site however. *Pseudodontaspis mississippiensis* and *P. lauderdalensis* reported by Case in a 1994 publication were in fact intermediate teeth from previously described species. Also, recently *Galeorhinus lefeverei* has been reassigned to the new genus *Pachygaleus*. Dr. Cappetta was very patient with the seemingly endless questions about the teeth I brought.

After looking at some of the Moroccan teeth Pierre brought for identification, we went to lunch and did not talk about shark teeth. When we returned to the office Dr. Cappetta showed me a fantastic jaw fragment from a sawfish (sp.?). The jaw has approximately one hundred associated rostral teeth in place. I was also shown the University study collection which had only a few large teeth (*C. megalodon* from Peru), but many specimens from Togo, Jordan, and, of course, France. I photographed some of the larger teeth for those interested in such.

We next visited the extraction laboratory where I was shown the sorting screens and the process for removal of calcareous material from the phosphatic fossil selachian teeth. The screens were large and sturdy. I was envious. Dr. Cappetta has been screening sediments from 5

millimeters down to 0.4 millimeters for his recent studies of small teeth. Bulk sediments are washed or soaked in formic acid to remove the calcareous material and to leave the phosphate. There was a complex apparatus which could quickly treat and rinse sediment to avoid prolonged contact with the acid. The results of this cleaning process was the numerous new small teeth which are a primary part of Dr. Cappetta's current research.

Although I did not see the actual production of electron microscope photographs of these small teeth, from Dr. Cappetta's publications and draft publications it is important to recognize the importance of these photographs in his identification and characterization process.

In closing this installment, I would like to make you all aware of the wonderful knowledge, vast generosity, extreme helpfulness, and exceptional patience of Dr. Cappetta. Here I was, a total stranger, asking for his time in a very busy week (the last week of school). He was very amicable and eager to share his knowledge. He tolerated my inability to speak French and welcomed me back. I might take him up on it.

Helpful definitions from the New College Edition of the American Heritage Dictionary of the English Language.

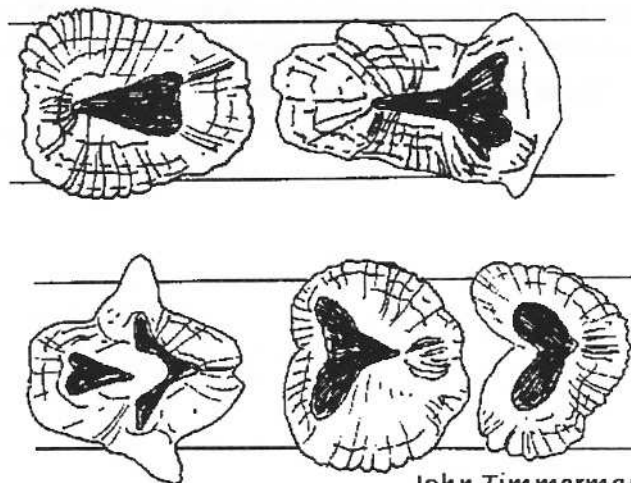
histology - the anatomical study of the microscopic structure of animal and plant tissues; the microscopic structure of tissue

nummulites - any protozoans of the family Nummulitidae, chiefly marine, tiny, mostly extinct, and characterized by a coin shaped shell [trace fossils for selachians]

phylogeny - the evolutionary development of any species of plant or animal

taxonomy - the science laws or principles of classification; the theory principles, and process of classifying organisms in established categories.

John Smith



John Timmerman

1611 Decatur Street, N. W.
Washington, DC 20011
May 12, 1997

President, North Carolina Fossil Club
P. O. Box 2777 Durham, NC 27715

To Whom It May Concern:

In all my travels on so many field trips, whether fossil or mineral, I have prided myself in being able to handle just about anything. As field trip chairman for several clubs in the eastern quadrant, I have arranged, attended, and climbed and descended many areas, including many trips to the Lee Creek mines in Aurora. I have also met and enjoyed visiting with many of the North Carolina Fossil Club members; they are a joy to be with. Most recently I met with Richard Tellekamp who offered much assistance and knowledge; he was so very nice and I wanted to take this opportunity to let you know how very much I appreciated his help. He is one FINE person.

But I am writing to you today to tell you of another very special person in your club -- Ray Smith -- "Smitty" someone told me. When my group and I were at the Lee Creek site in March of this year, Ray and Tricia were there as my guests. When I met them, I was especially pleased because they were so hospitable -- extremely nice people. I wish I had more like Ray and Tricia in my clubs, for life would be that much easier! To make a long story short, Ray saw that I needed help in climbing back up the treacherous hill path for our return to the bus. I honestly thought I could get up the hill; I could not. Ray helped me most of the way up. I had been fossiling for three days, and apparently my legs did not want to function at that point. Without his assistance, I doubt I could have gotten up that hill; but he remained with me the entire way up. He is absolutely one of the most marvelous people I have ever met, and I wanted to share that with you and the entire fossil club. If you have an outstanding award to give to a fossil club member, my vote is for Ray Smith. I thank him very much. I know I could have fallen backward if I had been alone; so in my heart, I believe Ray saved my life.

Thank you for reading my letter.

Terry Cirrincione
Terry Cirrincione

14th Annual Florida Fossil Fair

Sponsored by the Bone Valley Fossil Society, Inc.
Affiliated with the Eastern Federation and American Federation of Mineralogical Studies

Saturday - October 4, 1997 - 9 am to 5 pm

Sunday, October 5, 1997 - 9 am to 4 pm

Lake Mirror Center • 800 E. Main St. • Lakeland, FL

Fossils, Minerals, Gems, Jewelry & Artifacts for Sale by World Class Dealers
Our fair is an indoors event to better serve the public and our dealers. It is located in an air conditioned auditorium with excellent lighting and restrooms.



Programs, Lectures, Demonstrations and Color Slides by well-known professionals in the Tampa Bay area

DAVE LETASI, paleontologist and curator, M.C.S.T., Tampa

Lecture on "Ancient Whales and Related Marine Life" - Sunday, Oct. 5 at 10 am - 2 pm

TERRY SELLARI, amateur fossil hunter and dealer

Lecture on "Whale Pathology" - Saturday, October 4 at 10 am

TONY ESTEVEZ, amateur fossil hunter and dealer

Lecture on "Marine Life" - Saturday, October 4 at 2 pm



See the largest AUTHENTIC DINOSAUR EXHIBIT of its kind in the State of Florida

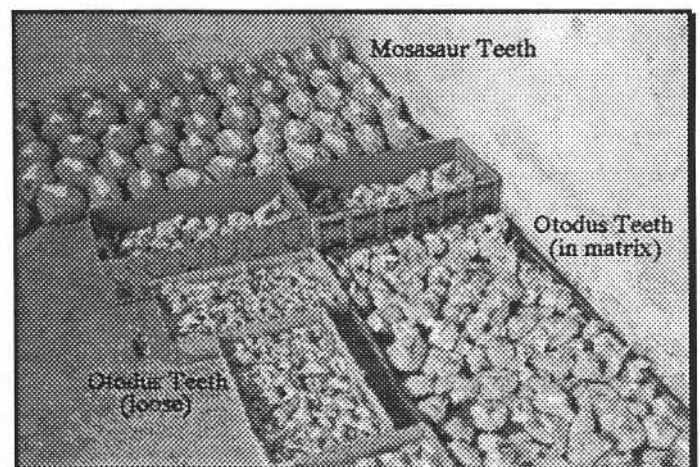
From the Private Collection of President Paleontologist Eric S. Kerschner. A 25 year collection of over 100 fossils. Skulls, skeletons and teeth of authentic Dinosaur Bones, Marine Life, Angiosperms (plants), and Insects. That were flourishing during the reign of the Dinosaurs will also be on display for your enjoyment. Free authentic Dinosaur Bones to the first 10 children to view the display. (Non-club members only)

Door Prizes - Raffle Drawing - Kids' Corner - Exhibits and Hands-On Fossils
Fossil Hunting in Sandbox - Banners - Silent Auction Around the Clock
Lions Food Wagon - Snack Bar

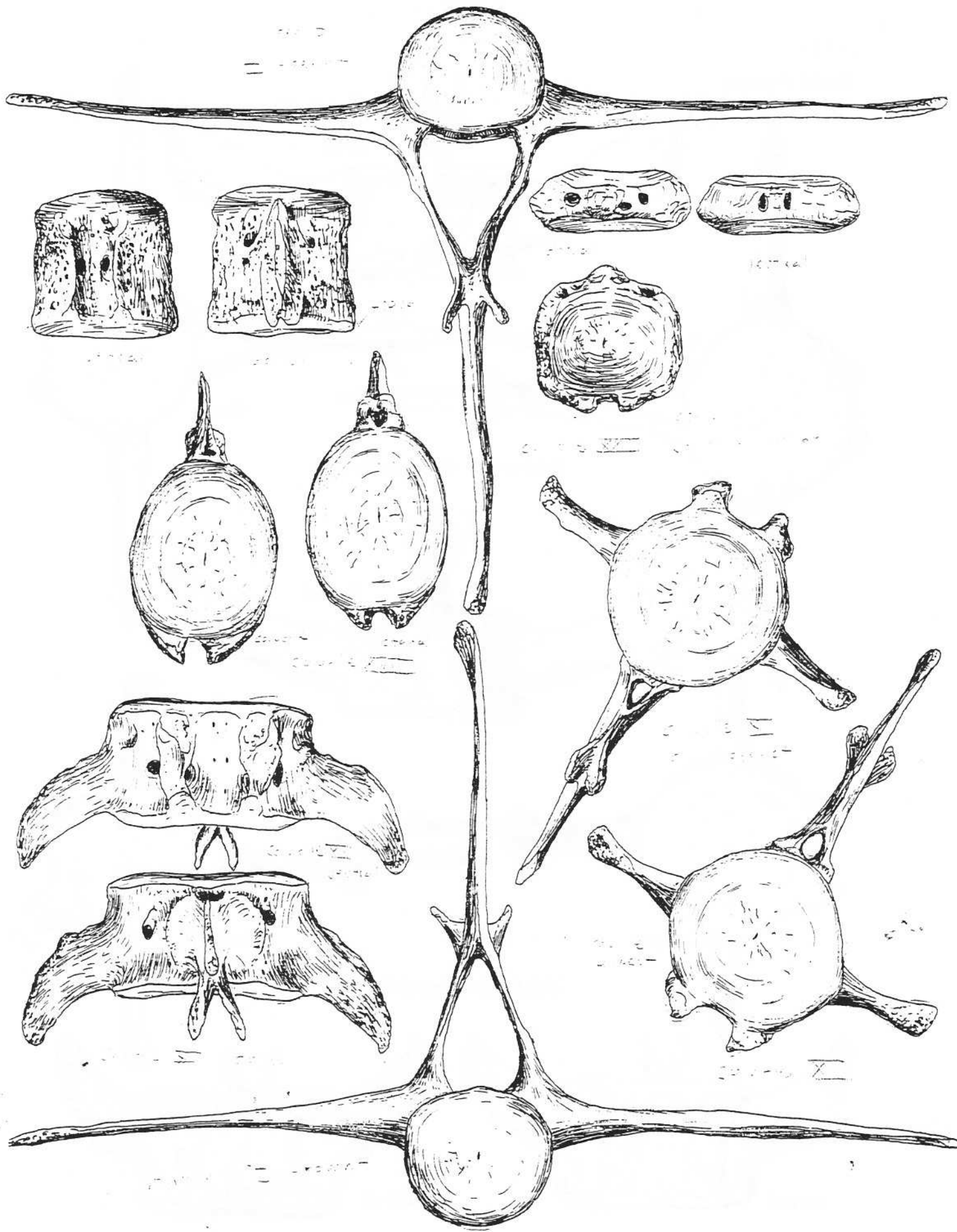
ADMISSION - Adults \$2.50, Children 12 and under FREE

FOR MORE INFORMATION

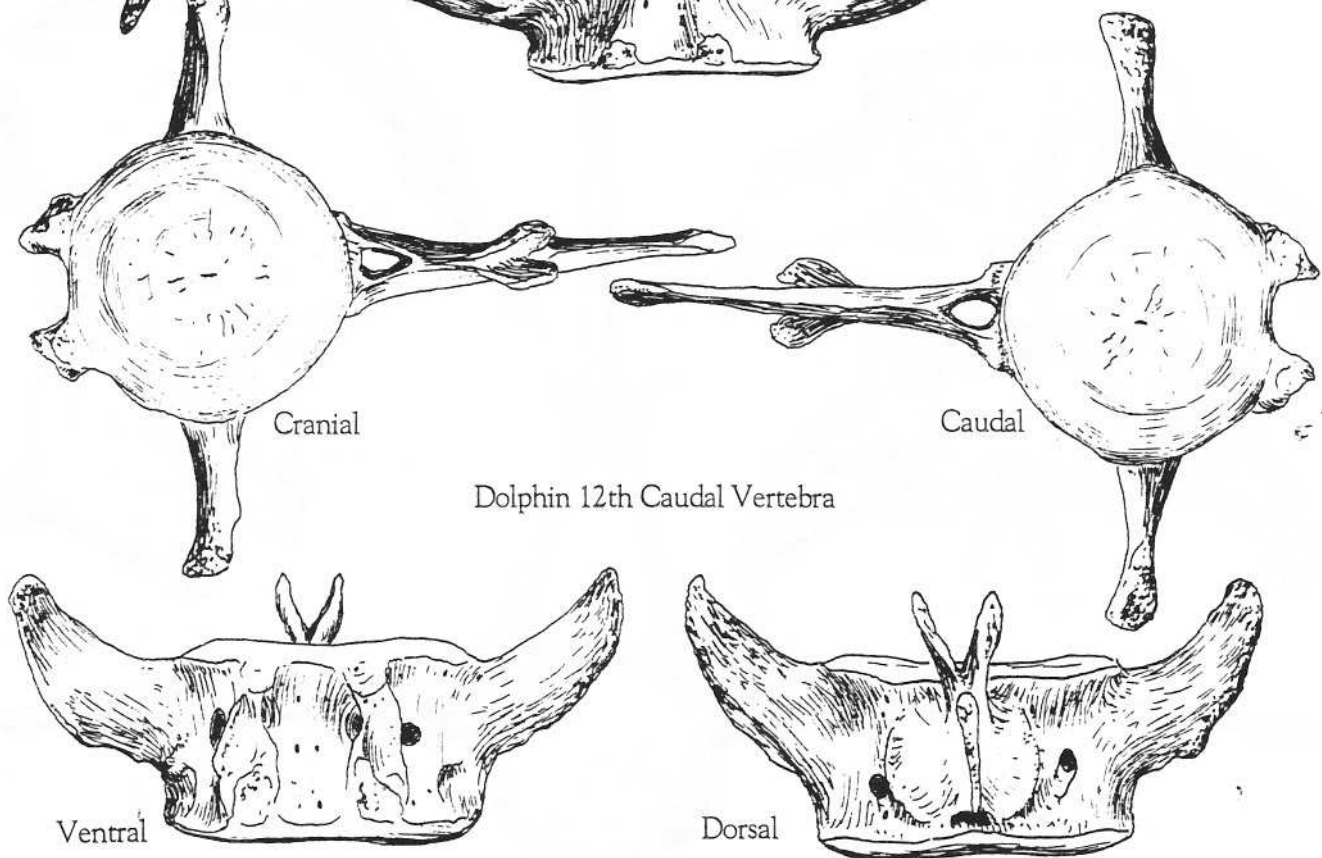
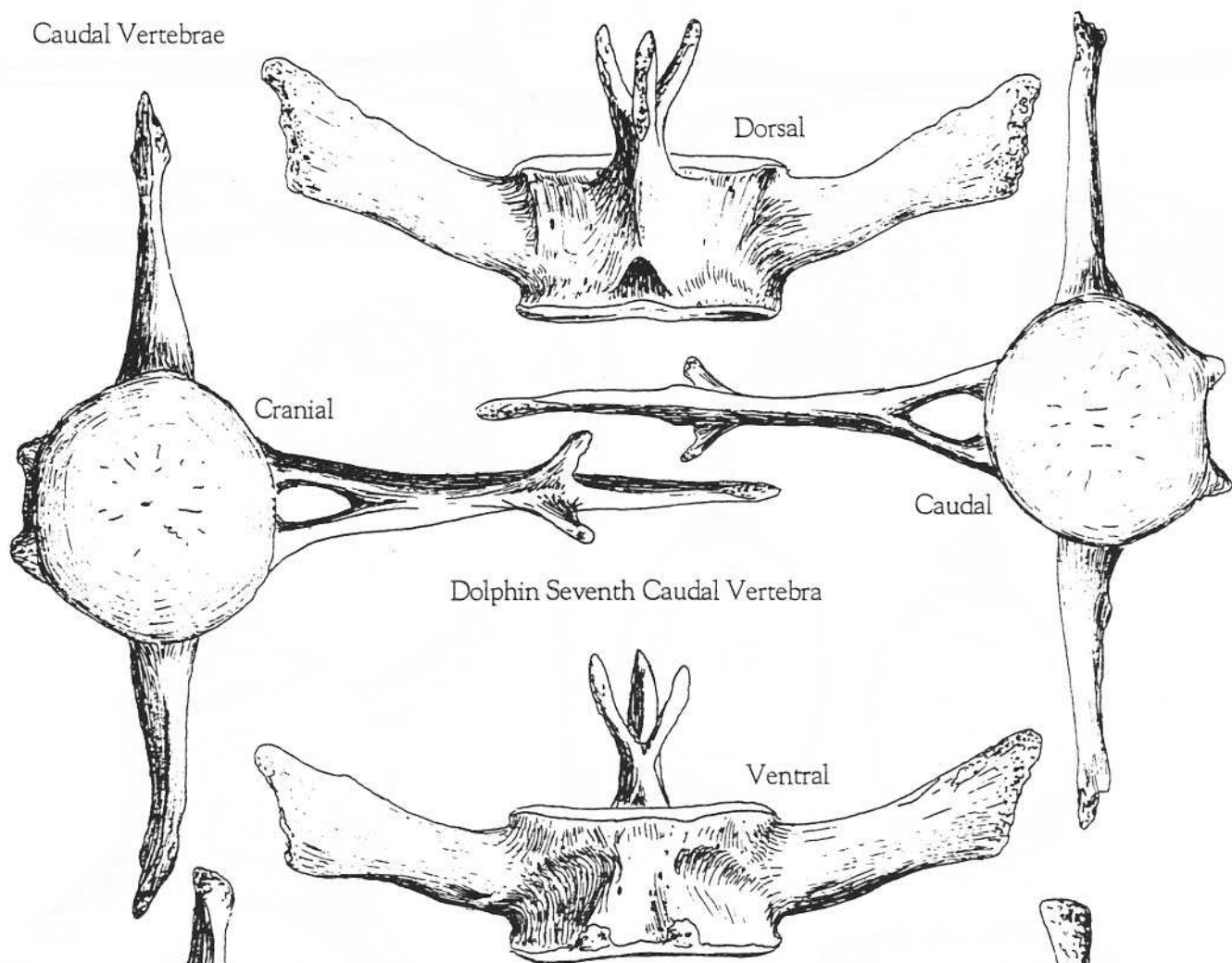
Ed Holman, Chairman 941-655-3428
2704 Dible Road, Lakeland, FL 33801
Lou Harvey, President 407-282-5578
Ed Martin, Exhibits 407-321-7462



Mosasaur and *Otodus obliquus* Teeth
(Seen and photographed in the house of a Moroccan dealer)
by Pierre Zennaro



Caudal Vertebrae



BY-LAWS
NORTH CAROLINA FOSSIL CLUB, INC.

Article I - PURPOSE

Section 1. The principal purposes of this Club are to engage in a progressive program of planning and action to advance the knowledge and interest in the study, collecting and enjoyment of fossils, to bring fossil collecting enthusiasts together to share information on identification and collecting, and to distribute educational information.

Article II - MEMBERSHIP

Section 1. All persons interested in fossils are eligible to apply for membership in the Club. Membership in the Club will be effective as prescribed in the Rules of Procedure upon approval.

Section 2. Membership in the Club shall be designated as Individual, Spouse, Junior, Complimentary and Honorary.

- | | |
|------------------|--|
| a. Individual | Membership held by one person. |
| b. Spouse | Membership held by the spouse of an individual member. |
| c. Junior | Membership held by one who is seventeen (17) years of age or under with an individual member parent. |
| d. Complimentary | Membership conferred for signal assistance to the Club in carrying out its objectives. |
| e. Honorary | Membership for long and distinguished service to the Club. |

Section 3. All members regardless of membership designation seventeen (17) years of age or under shall be accompanied by an adult member that accepts responsibility for said member on outings or field trips.

Section 4. All members except Junior and Complimentary shall have the right to vote and hold office.

Section 5. Complimentary and Honorary membership shall be the results of favorable action by the Board of Directors as set forth in the Rules of Procedure.

Section 6. The Board of Directors may revoke the membership of any member for just cause.

Article III - DUES

Section 1. Membership dues shall be as established in the Rules of Procedure.

Section 2. No member delinquent in dues at the time specified in the Rules of Procedures for the payment of dues will be considered a member in good standing.

Article IV - MEETINGS

Section 1. The Club shall hold an annual meeting for the election of the President and Directors and the transaction of other business. The date of the annual meeting shall be as specified in the Rules of Procedure .

Section 2. Those present at the annual meeting shall constitute a quorum for the transaction of business for which prior notice has been mailed to members not less than two (2) weeks nor more than seven (7) weeks.

Section 3. A quorum for the transaction of business shall consist of one-third of the membership qualified to vote, except as otherwise provided in these By-Laws.

Article V - OFFICERS AND ELECTION

Section 1. The officers shall consist of a President, Vice President, Secretary, and Treasurer and shall hold office until their successors are selected.

Section 2. The Board of Directors shall consist of the President and the eight (8) elected Directors. A Director shall hold office until his successor is elected.

Section 3. The Vice President will be selected each year by the Board of Directors from among the Board members.

Section 4. The Secretary, Treasurer and such other administrative assistants as are needed shall be Club members chosen by the Board of Directors for the special skills which they possess for the office.

Section 5. The procedure for filling vacancies shall be as described in the Rules of Procedure.

Section 6. Directors and the President are subject to recall only at a Club meeting for which prior notice has been mailed to each member not less than two (2) weeks nor more than seven (7) weeks. The notice shall state the reasons for considering the removal of the incumbent from office and shall include a statement by the incumbent at his option if received in time by the Secretary. Recall of a Director or the President shall require a two-thirds vote of the members present and voting.

Section 7. Recall of a member of the Board of Directors or the President may be proposed by the Board or by a petition signed by twenty-five (25) members.

Section 8. The Board of Directors may remove any Director for failure to attend Board meetings or for the failure to perform the duties of his office by a two-thirds vote of the full Board after the Director has been given thirty (30) days notice and an opportunity to be heard.

Article VI - FINANCES

Section 1. The Treasurer shall submit an audited financial report for all activities of the Club to be completed by April 15. This shall be published in the next mailing to the members. This will include the budgets that were established for various categories by the Board. The Treasurer will present an interim report of the Club's finances at the annual meeting.

Section 2. Expenditures which would result in indebtedness for the Club for longer than six (6) months shall be submitted to the membership for prior approval.

Article VII - DISSOLUTION, ABSORPTION OR MERGER

Section 1. This Club may not be dissolved, absorbed or merged with another club except by adoption of an appropriate amendment to these By-Laws and compliance with appropriate provisions of law.

Section 2. The Board of Directors shall determine the disposition of all Club property in accord with its non-profit status if this Club is dissolved, absorbed or merged with another club; provided that upon dissolution no portion of the assets of the Club shall be distributed to any member so as to accrue to his personal benefit.

Article VIII -AMENDMENT

Section 1. These By-Laws and the Certificate of Incorporation can be amended only at a Club meeting for which prior notice has been mailed to each member not less than two (2) weeks nor more than seven (7) weeks. Notice of consideration of change to these By-Laws and the Certificate of Incorporation, to be conducted at meetings other than at the annual meeting, shall be sent to members by first class mail and shall bear a clear-cut indication on the exterior of the envelope as to the contents. The notice shall contain the text of the Section(s) for which an amendment(s) is being proposed, the text of the proposed amendment(s) and a description of the purposes of the proposed amendment(s). Adoption of a proposed amendment(s) shall require a two-thirds vote of the members present and voting in person or by proxy.

Section 2. Amendment(s) of these By-Laws and the Certificate of Incorporation may be proposed by the Board of Directors or by petition signed by twenty-five (25) Club members.

Section 3. Voting by proxy shall be permitted only on amendment(s) to the Certificate of Incorporation, these By-Laws and the Rules of Procedure.

Article IX - ADOPTION

Section 1. These amended By-Laws shall become effective on adoption except that during the current year the organization shall complete operations started under the former provisions.

NORTH CAROLINA FOSSIL CLUB, INC.

(FOUNDED 1977)

PRESIDENT	John Timmerman	(910) 452-0943	Wilmington, NC
IMMEDIATE PAST PRESIDENT	Mike Hogan	(919) 942-2877	Chapel Hill, NC
TREASURER	Trish Kohler	(919) 383-6328	Durham, NC
SECRETARY	Judy Stiles	(919) 479-4327	Rougemont, NC
MEMBERSHIP CHAIRPERSONS	Mike Milton/Barbara Shaw	(919) 471-6361	Durham, NC
EDITOR, <i>JANUS</i>	Richard Chandler	(919) 851-2153	Raleigh, NC
BOARD	Steve Ames	(919) 735-3585	Goldsboro, NC
	Richard Aultman	(704) 396-7444	Granite City, NC
	Doug Meier	(919) 872-0529	Raleigh, NC
	Joy Pierce	(919) 489-8149	Durham, NC
	Sam Schmidt	(919) 494-1128	Franklinton, NC
	Vince Schneider	(919) 779-9338	Garner, NC
	Robert Story	(919) 544-2017	Durham, NC
	Richard Tellekamp	(910) 347-6361	Jacksonville, NC



1997 MEMBERSHIP APPLICATION - N. C. FOSSIL CLUB

NAME(s) _____

ADDRESS _____

CITY, STATE, ZIP _____

PHONE(S) (INCLUDE AREA CODE) _____

INDICATE TYPE(S) OF MEMBERSHIP(S)	INDIVIDUAL (NEW)	\$20.00	_____
	INDIVIDUAL (RENEWAL)	\$10.00	_____
	SPOUSE (NEW OR RENEWAL)	\$ 5.00	_____
	TOTAL ENCLOSED	\$	_____

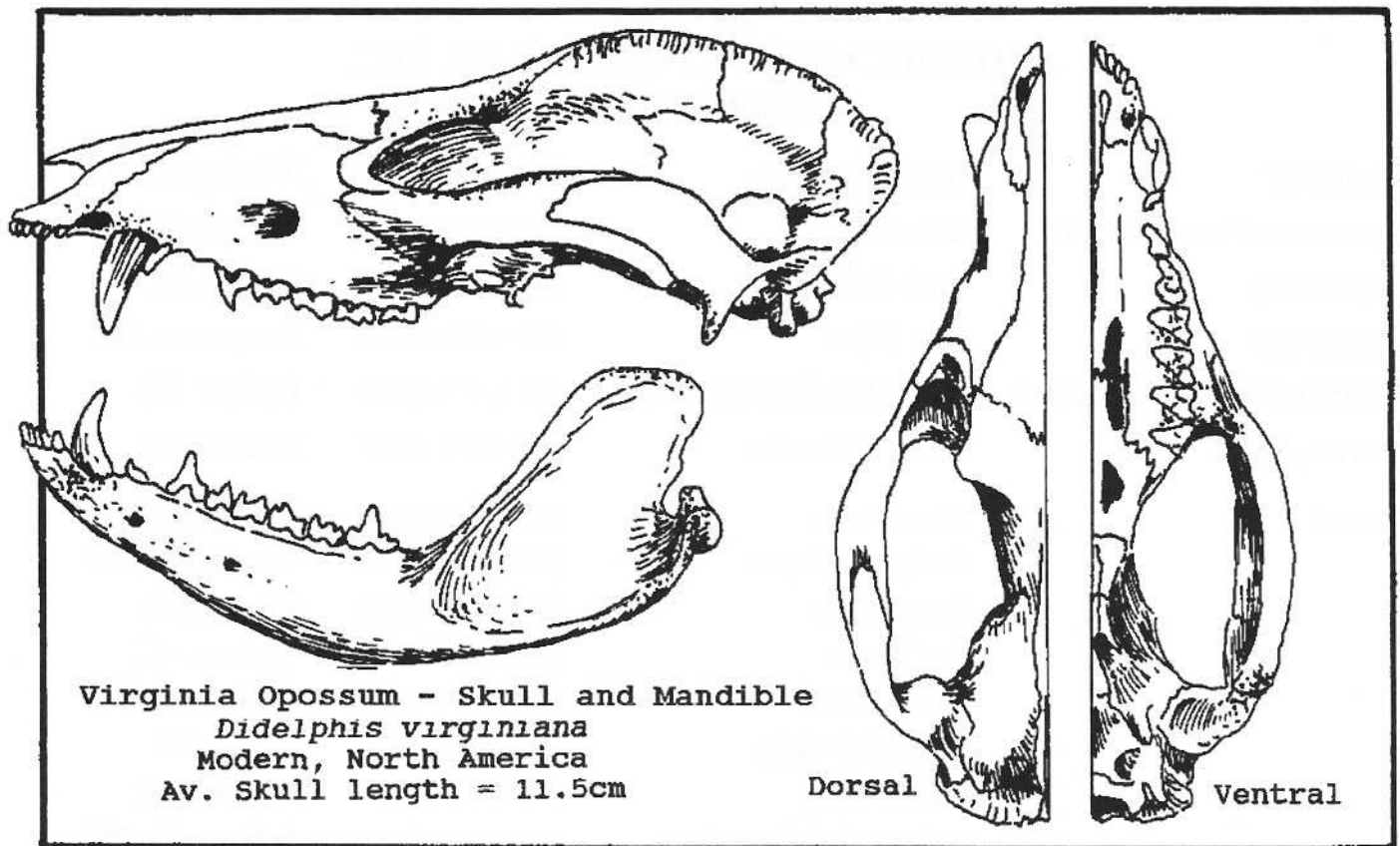
SIGNATURE _____

DATE _____

Children of NCFC members who are dependent minors and living at home may accompany parents on any trip *EXCEPT* PCS-Lee Creek or where otherwise noted. Only 15 positions on the PCS-Lee Creek trip are available to members who reside outside of North Carolina.

Memberships are effective from January through December of the year (or portion of the year) of the date of application. For example, persons joining in August will need to renew their membership 5 months later in January.

MAIL TO: NC FOSSIL CLUB, P.O. BOX 2777, DURHAM, NC 27715



John Timmerman 1997

NORTH CAROLINA FOSSIL CLUB
P. O. BOX 2777
DURHAM, NC 27715