



JANUS

The Newsletter
of the
North Carolina
Fossil Club
www.ncfossilclub.org

2004 Number 3

2004 Fall Calendar

September

- 19 NCFC Meeting** - NCMNS, 11 West Jones Street, Raleigh. 1:30 pm, Level A conference room. Ideas on displaying your fossils: demos and panel discussion. Sign-up for November Fossil Fair.
- 24-26 North Carolina Shell Club** - Annual show. NC Museum of Natural Sciences, regular hours. Contact John Timmerman (jntrose@aol.com).
- 28 Fossil Fundamentals Exhibit** - Onslow County Museum, Richlands. See below; contact Cindy Muston, 910-353-8897 (fossilgal@hotmail.com) or Rich Olsen 252-247-4762 (fisherman11@earthlink.net).
- 30 Castle Hayne** - Contact John Everette 919-847-4485 (ncjde@aol.com). Meet 11:00; Hardhat required.

October

- 3 Green's Mill Run** - Contact John Steffenson 252-756-0386 (jjlld@aol.com). Meet 8:30 in the Elm Street Park.
- 5 PCS Call-in** - Call-in for any remaining slots for PCS fall trip. Contact: Cindy 910-353-8897 beginning at 8PM. Do not leave messages or send e-mails, they will not be considered.
- 8 Fossil Fundamentals Exhibit** - Onslow County Museum, Richlands. See below; contact Cindy Muston, 910-353-8897 (fossilgal@hotmail.com) or Rich Olsen 252-247-4762 (fisherman11@earthlink.net).
- 9-10 Swansboro Mullet Festival** - Fossil Display- Need helpers; contact Rich Olsen 252-247-4762 (fisherman11@earthlink.net).
- 16 or 23 PCS Trip** - Tentative. Definite information will be sent by postcard as soon as something is known.
- 28 Rocky Point** - Contact John Everette 919-847-4485 (ncjde@aol.com). Meet 11:00; Hardhat required.
- 30 Meherrin River Trip** Contact Rufus Johnson 252-538-9766 (rufus.johnson@cummins.com). Meet at McDonalds in Murfreesboro at 8:30 (see map).

November

- 6 NCFC Fossil Fair and Board Meeting** - NC Forestry Museum, 415 S. Madison Street, Whiteville, NC. Contact Vince Schneider (919)-779-9338.

General Rules

Always contact the leader in advance of attending any trip. In advance of any new or out of state trips always maintain close contact with the leader for special instructions and last minute changes. Be certain that accurate phone and/or email addresses are given to the leader and updated as needed. Some trips may be limited in size at the option of the leader.

Castle Hayne and Rocky Point begin at 11:00 AM and hard hats are usually required and not furnished by the company. The terrain is rugged and can be somewhat dangerous and demanding for persons not used to climbing or physical exertion.

Green's Mill Run involves wading and digging gravel from a creek bottom. There is a possibility of pollution. Waders, a floating screen and a long handled shovel are highly recommended. This is not an appropriate trip for young children.

Always arrive early. Be sure to fully understand rules and instructions. Safety is our main concern – **Never do anything which might endanger you or any other collector. Children, where permitted, must always be under your direct control and supervision.**

Safety rule violations are a sure way to lose all fossil collecting privileges at any site.

Note: Information on trips which are scheduled too late for publication will be dispersed via postcard. **It is absolutely imperative you communicate with the contact person if you intend to go on a trip.**

FOSSIL FUNDAMENTALS EXHIBIT

The Onslow County Museum in Richlands has several classes scheduled for special tours around the FOSSIL FUNDAMENTALS EXHIBIT. I'd like to request the assistance of your fossil club members (just a couple each tour) to help the students out on the fossil dig site. The first tour will be **Tuesday, September 28 - 10 am until 1 pm - 85-90 7th graders**. They will rotate every 45 minutes out to the fossil dig. The 2nd tour will be **Friday, October 8, 10 am, 85 3rd graders**. I have a **3rd request for September 29 or 30** but that is tentative and the teacher has not yet confirmed her request. I hope that the club will be able to assist with the tours. I also wanted to thank you once again for the great success of the exhibit and the family fossil fun day.

We calculated about 200 visitors during the course of the (4) hour program. We have also spoken with Sue Tellekamp and she too has agreed to extend the loan of the specimens for the exhibit. We anticipate closing the exhibit - November 14 - just after our MUSEUM FEST.

If you have any questions, please let me know. I look forward to hearing from you.

Lisa Whitman-Grice, Director
Onslow County Museum
301 S. Wilmington St., Richlands, NC 28574
(910) 324-5008 / (910) 324-2897 fax

President's Column

Well it seems like fall collecting season is going to be a very busy one. I know some of you are wondering about the tentative dates set for PCS. We should be receiving the official date from Curtis Sr. very soon. But, as of this printing, we have not heard of the actual date for NCFC to visit the PCS mine. I have went ahead and set the call-in date for any remaining slots for Tuesday, October 5th at 8PM. Please call during that time if you are interested in going.

Another trip we have put together, thanks to the effort of Rufus Johnson, is a trip to a site along the Meherrin River. This trip does require the use of a boat. Do not be discouraged if you do not have a boat; we will find a way to accommodate any member that wants to attend.

One last note, I have been working with Harry Warren of the North Carolina Museum of Forestry on our upcoming fossil fair and it is leaning towards being the best one yet. I encourage all members that have a desire to display their fossil collections at the fair to sign up. I assure you that measures will be taken to provide plenty of room to accommodate everyone who wants to display.

Cindy Muston

Mazon Creek Trip, April 15-18

Mid-April saw an unprecedented heat wave here in Central Illinois. As temperatures broke 90 degrees, we were reminded that some 290 million years ago, we were on the earth's equator. All this seemed somehow appropriate as six adventurers from North Carolina made their way to the famed Pennsylvanian fossil region of Mazon Creek.

Day 1—Jeff Cohn, Sandra Cathcart, Rich and Liz Olson, George Oliver and Dana Priddy met hosts Fred and Adrienne Hahn at the "base camp" in Bloomington, IL. Dana arrived early and had an opportunity to cruise Bloomington in search of points of local interest. Rich and Liz arrived later by car followed by air travelers George, Jeff and Sandra. After checking in to accommodations at the Prospect Inn, the troop traveled to the Hahn Family Winery in Mackinaw, about 20 miles west of Bloomington. Fred's brother, Paul, conducted a tour of the winery, describing the winemaking process. A catered dinner was accented by a wine tasting and offerings of specially labeled "Tully Wine" in honor of the North Carolina Fossil Club. Fred and Adrienne distributed binders with maps, geological information and reference material on the Mazon Creek collecting site. Samples of nodules and recent finds were passed around to familiarize everyone on collecting techniques.

Day 2—Friday morning arrived too early for some but by 6:15 a.m., all persons were present and accounted for. A pleasant breakfast at nearby Le Peep and a strong cup of coffee opened some eyes (for most). Travel time to the pits was a short one hour. A few adventurers used the time to prepare themselves through a restorative nap while others enjoyed the sights of Central Illinois barns and grain elevators.

The caravan arrived at the Mazonia-Braidwood collecting site around 9:00, met by Keith Holm, a well-respected and very knowledgeable collector from Coal City, IL. Keith led the group to the first collecting site in the Wilderness. A long walk in, following a dusty trail through the tall grass and reeds ended at a ridge of exposed spoils piles. Most found that the rubble made climbing difficult but a small number of nodules were collected.

We were led to several other locations in the wilderness but

like so many other collecting sites, the lack of recent heavy rains hadn't occurred to expose new layers of nodules. After a picnic lunch, we moved to a series of spoils near Monster Lake. Once we left the well-worn path, everyone began to locate caches of concretions in the dry undergrowth. Several fine examples of jellies (*Essexella ashrae*) were collected, conveniently split by natural freezing and thawing. It quickly became evident that we were collecting more material than we could carry. Fred offered Dana, quite literally, the t-shirt off his back for a make-shift collecting bag. With heavy hearts and equally heavy sacks, we left this rich site for another day.

The trip back to the hotel afforded some time to regain strength, tend our wounds and scrapes, shower and change. The evening meal was at Famous Dave's Barbecue. It was a hearty meal, befitting a day of strenuous activity but the lively conversations among friends made this a truly enjoyable evening. The evening, however, was not over yet. Keith had brought some of his personal photos of the strip mining during the 1950s through the 1970s. It was a fascinating glimpse into the past when the treasures that we were seeking were nothing more than overburden that covered another type of fossil—coal. Keith also brought fine examples from his collection. In a surprise to us all, these were offered as gifts. Keith certainly epitomizes the fine qualities of what it means to share. As the day drew to a close, we made our way back to our rooms, knowing that the morning would bring new discoveries.

Day 3—Saturday promised to be another beautiful day with some clouds and moderately warm temperatures forecast. We met at 6:45 a.m. and after fortifying ourselves with a hearty breakfast, made our way north. We chose the north short of Monster Lake as our first site. Fred filled the role of "The Pathfinder" and led the group, single file, through tall reeds and thick brush. It quickly became evident that our leader was slowly making his way through an impenetrably thick growth of brush, framed by the 70 foot deep shoreline of Monster Lake and a 30 foot high bluff. On the plus side, several nice nodules were found.

Keith Holm again joined the group and marked a trail through less overgrowth. We still were required to perform acrobatics to avoid wet feet and impalement. To our delight, the shoreline was literally paved with fossil concretions. Most of us could have gathered our weight in material. After about one quarter mile, we caught up with Keith who led us to our original destination, the north side of Monster Lake. Nodules were everywhere. Some were open, while others held their surprise for later.

It should be mentioned that collecting nodules from Mazon Creek is unlike most other fossil hunting. The principal difference is that the collector doesn't know what fossil he or she has found. In general, Mazon Creek nodules cannot be opened as they are found but must go through a lengthy freeze-thaw process to split them open. So, it is necessary to bag all likely suspects and wait until they split before discarding the "empty" nodules or common finds. Aside from sharing material with kids, Adrienne and I would be interested in creative and decorative uses for fossil jellyfish.

By midafternoon, everyone had bagged their limit. We returned to Bloomington for a quick shower and slow dinner at Biagi's Italian Restaurant.

Day 4—Collecting was behind us, so reveille was sounded at 7:30 a.m. Packing and checkout was on the agenda but still a few activities and surprises remained. Everyone met at Fred and

Adrienne's house to practice whacking nodules. We generated lots of debris but the purpose was to develop techniques and some level of experience. We also had a surprise from a friend of Fred's—Drake Zimmerman—who graciously gave Club members several pounds of cephalopods he had collected from a site in Iowa and these were distributed among the group. We do appreciate Drake's gift and will spend many happy hours cleaning the material this winter.

By midday, the last of the travelers had left for their homes, laden with treasures from the Pennsylvanian.

Epilogue—We met Jeff in Durham, NC, while visiting our son a few weeks later. Jeff brought some of the nodules that were opened after only eight or so freeze-thaw cycles. We identified a shrimp, a coprolite and a jelly among some other “interesting stuff”. We caught up with Rich and Liz Olson in Sanford at the Pottery Festival. Liz had some great pictures that brought back memories of our adventure. Rich and Liz also presented us with a wonderful plaque commemorating the trip. We also have a plaque to present to Keith Holm for his generosity in sharing his knowledge and experiences with us.

Adrienne and I greatly enjoyed hosting the trip. It would not have been as successful, however, without the enthusiasm and camaraderie of the entire group of NCFC fossil hunters. We look forward to many other diverse collecting trips in the future.

Fred Hahn

Progress Report on the CD ROM Project

While we still have a long way to go, significant progress has been made. Sections finished (or near finished) with principal author:

Geological Overview (Rich Olsen)
Fossil Resin (Rufus Johnson)
Fossil Wood (Rufus Johnson)
Coral (Richard Chandler)
Starfish (Richard Chandler)
Crinoids (Rufus Johnson)
Pteridium (Richard Chandler)
Bryozoans (Steve Hageman & Frank McKinney)
Cephalopods (Richard Chandler)
Barnacles (Richard Chandler)
Cretaceous and Eocene Crabs (Don Clements)
Fish Otoliths (Pat Young)

Unfortunately, these areas are not the ones most of you want to hear about. I can say that progress is being made on all the remaining areas:

Plants (Vince Schneider)
Sponges (Richard Chandler)
Mollusks (John Timmerman)
Miocene and Pliocene Crabs (Pat Young)
Echinoids (Judy Schneider)
Bony Fish (Vince Schneider)
Cartilaginous Fish (Richard Chandler)
Reptiles (Vince Schneider)
Birds (Kim Greene & Ellie Rouse)
Marine Mammals (Joy Pierce Herrington)
Terrestrial Mammals (James Bain)

We had an unforeseen piece of good fortune fall to us. As you can see from the above, I have taken on several of the small chapters no one else had requested; the section on Bryozoans being one such. After I had a more or less finished this chapter I discovered that there were two recognized experts on the subject on the faculty at Appalachian State University, Steve Hageman and Frank McKinney. I emailed Steve, asking if he would look

over my effort on bryozoans, to which he graciously agreed. I sent him a CD containing several of the near-finished sections and heard nothing for about 4 months. Out of the blue he emailed me, saying that he and Frank were about finished and I should expect a CD from him shortly. It was waiting for me when we got back from a short stay in the mountains the next-to-last week in August. They had completely scrapped my feeble efforts, providing a wonderfully concise what-everyone-should-know-about-bryozoans! There were also some nice photographs of living bryozoans to illustrate the text. I wouldn't be surprised if it turns many of you into bryozoan hunters.

I would also not be surprised to learn that many of you are impatient with the pace at which this project is progressing. I am disappointed myself. However, when I proposed the project I had no conception how immense it would turn out to be. You must also appreciate that, with the exception of only a couple of contributors, everyone working on this is holding down a full-time job. So I enjoin you to patience; it will be well worth the wait.

Samuel George Morton (of *Hardouinia mortonis* fame) was one of America's first paleontologists. In 1834 he published a short monograph entitled *Synopsis of the Organic Remains of the Cretaceous Group of the United States*. Here is his final paragraph:

In conclusion, I beg leave to state, that this work has been written during the constant interruptions of a professional life; and I cast it as a grain of sand on the mountain of geological knowledge, which has been heaped up by the genius and industry of the naturalists of both hemispheres.

I know most of us working on this project have a lot of empathy for Morton's sentiments. *Richard Chandler*

Observations on Exhibit Techniques John Timmerman, Wilmington NC

Introduction. Many fossil collectors have discovered the pleasure in exhibiting fossils at shows and festivals. Following are some observations and conclusions I have drawn from my experiences in exhibiting and/or operating shows. Much of my experience is with modern mollusks but exhibit theory transcends shells and is applicable to many disciplines.

Basically, most viewers of your fossils, novice or experienced are going to be impressed with what you have found or gathered by other means. Almost everyone has the ability to collect fossils, if even in a parking lot. Even the hardcore, experienced collector is going to be interested in a beginner's display, if for no other reason that it reminds them of their early efforts. Do not worry that what you have is “not as good” as someone else's. Never found a perfect 6” C. megalodon tooth? Not a problem. When well presented, even many jaded collectors find something of interest in a story told with your “junk.”

Tell a Story. When creating a display, decide on a story you want to tell. Examples might be “The Fossils I Collected Last Summer”, “One Day's Collecting at PCS”, “The Yorktown Fauna of PCS”, “Eocene Shark Teeth of the Southeastern United States”, “My Best Shark Teeth”, “Mystery Fossils”, “Augh! Heart Breaking Finds”.

The idea is that if the exhibit has a focus, it is more likely to make sense to all viewers. It helps remove mystery from your

display. When a visitor connects with an exhibit one of the largest hurdles has been made. A large number of people who view our shows are beginners, at best. A random selection of/ or everything from your collection may confuse the inexperienced viewer and thus not make much of a personal impression. A focus creates a context that can be more readily identified with. If everything or random selections are your pleasure and/ or goal, make that clear in your exhibit design. A display idea along this vein may be “The Contents of an Amateur Fossil Collector’s Cabinet.” Your recording and storage methods would provide the viewer a chance at placing themselves in your shoes and connecting with the exhibit.

Select your story to fit in the space you can accommodate. It is to say an exhibit such as “The Yorktown Fauna of PCS” is going to require a lot of cases/footage to relate a complete story. “My Best Shark Teeth” may be a much smaller display – at least for some of us.

Surprise people. Display fossils that no one else shows. All life is important to the health and understanding of a given ecosystem. Before you know it, others may take your example and you will not be the only one showing collections of previously ignored fossils. Fine displays of less popular fossils can be put together easily due to the high focus on specimens like shark teeth. Don’t worry about missing out on finding shark teeth. They stand out while you are looking for other things. Additionally, professional paleontologists will be impressed with your ability to look beyond popular subjects to record a previously ignored fauna in the fossil record.

Arrangement/Design. Organize your display in a way to show the contents to their best advantage. This is one of the hardest tasks for me. It is not what I use that is difficult; what I exclude is torturous. I want to include every specimen I have ever found. That can easily lead to a cluttered landscape where it is hard to see and appreciate individual fossils. Give the specimens breathing room. Try to select those fossils that are quintessential to or best illustrate the story you are telling.

Provide order to the arrangement to enhance the story. For example, if you’re exhibiting all fossils from PCS, group the shark teeth together and the mollusks together. It is how scientists group life. However, if your goal is to demonstrate the randomness of finds in the field, make that clear.

Labels. Even the most basic of labels can make an exhibit a world better to the viewer. Not all visitors want to talk to the exhibitor, not to mention that due to crowds, it is often impossible to interact with everyone. Labeled exhibits make passing the reins to a helper while you take a break much easier. The helper’s job is easier if he/she does not have to remember what you are showing and where it came from. Labels do not have to be fancy. Latin binomials, while helpful to many, are not required. A popular name and source, such as “Extinct Great White Shark Tooth, PCS Phosphates”, adds much to the potential understanding of the exhibit.

Note: If you have a favorite collecting site you would just as soon the world not know about it, it is perfectly acceptable to be vague in source information. Instead of “PCS Phosphates” write “Beaufort County, North Carolina” or “North Carolina.” People in the know can/will fill in the missing information for themselves.

Security. Though it is not required, it is helpful to one’s peace of mind to invest in display cases with closeable/securable tops. I know too many people who have lost fossils from open displays. Some exhibitors give away fossils and this can confuse the public as to which are “public”. Curious lookers may impulsively handle a fossil (and damage it) with little knowledge that what they have in their hand is irreplaceable, not to mention your pride and joy. They just do not know. Even the most watchful exhibitor/monitor cannot look at everything at once. I once had a visitor say to me he knew something I had was valuable, asking me how he knew that. His answer: because I had it protected (from touching) in a case. Conversely I had another person tell me he knew a giant shark tooth I fabricated was a fake as it was not protected in display.

Portability. Well ahead of the event plan how you will set up and take down your exhibit. Provision for set-up with plenty of help is usually available. If you do not want others handling your exhibit make it clear to those offering to help. They will understand. Making it small and easily transferable will greatly ease your anguish when moving it around by yourself as well as saving time.

Case in point: I once put out a huge exhibit of fossil whale bones. I was the last person packing at the end of the day. The show organizers started pressuring me to allow others to help me clear out of the facility. I finally acquiesced, allowing people help me pack and remove my display from the building. When I unpacked, I found a broken whale vertebra. Did I break it? Did someone else break it? I had no way to know but was disappointed nonetheless.

Conclusion. Showing one’s fossils to the public is a greatly rewarding experience. There is a great curiosity and quest for knowledge from the most casual of viewers to the most serious of collectors. The public is generally very impressed that you have this material. Every fossil has “value” to its finder as well as others. You need not possess the biggest, rarest or best of anything to be a part of the excitement. I once talked a friend into exhibiting her beach collected fossils. Even people she believed were so far above her in experience that they would not even give her the time of day were thoroughly impressed with her display. With planning and thought an exhibitor can greatly enhance the success of the public’s experience and pleasure through an informative and exciting display.

Editor’s Note: John has been deeply involved with a new exhibit opening at the Museum of the Cape Fear on September 17. He is also preparing his own exhibit for the NC Shell Club’s annual weekend show at the NC Museum of Natural Sciences on September 24-26. Because of these commitments, he will be unable to attend our meeting on the 19th. We will continue the theme of “Preparing your own exhibit” at that meeting. Joy Pierce Herrington, Rufus Johnson, Vince Schneider, Judy Stiles, and I will be the panel to discuss the do’s and don’t’s of exhibiting.

Isurus retroflexus

Les espèces fossiles sont au nombre de quatorze, dont une dans le Jura, l'*Oxyrh. paradoxa*; deux dans la craie, les *Oxyrh. Mantelli* et *Zippei*; et onze dans les terrains tertiaires, qui sont les *Oxyrh. hastalis*, *xiphodon*, *trigonodon*, *plicatilis*, *retroflexa*, *quadrans*, *leptodon*, *Desorii*, *crassa*, *subinflata* et *minuta*.

(The fossil species number fourteen, with one in the Jurassic, *Oxyrh. paradoxa*; two in the Cretaceous, *Oxyrh. Mantelli* and *Zippei*; and eleven in the Tertiary formations, which are *Oxyrh. hastalis*, *xiphodon*, *trigonodon*, *plicatilis*, *retroflexa*, *quadrans*, *leptodon*, *Desorii*, *crassa*, *subinflata* and *minuta*.) **Louis Agassiz, 1843**

We know today that *Isurus* does not occur in the fossil record until the Eocene. It should also be apparent that Louis Agassiz was a “splitter” when it came to describing new species. Of his eleven Tertiary species, no more than three or four are recognized as distinct today. For example, Maurice Leriche (the great Belgian paleontologist of the first half of the 20th Century), summarizing 75 years of European scientific thought on the subject, concluded that *xiphodon*, *leptodon*, *trigonodon*, *plicatilis*, and *crassa* were all synonyms of *hastalis*. In the fish article in Lee Creek III Purdy, *et al.* revived the species *xiphodon* to describe the broad-toothed Miocene and Pliocene shark which had commonly been identified as *I. hastalis*. I am not going to discuss this topic here. Rather, I want to focus on another of Agassiz’ species, one that was missing from Lee Creek III, *I. retroflexus*.

Until recently I was not convinced this was a valid species, having seen only a very few plausible specimens (Trish Kohler has one very large anterior tooth). On a recent visit to Pat and Ken Young’s house to photograph specimens for the CD ROM project Pat showed me several large Riker boxes of shark teeth, most of which were *not I. oxyrhina*, the narrow toothed *Isurus* which is fairly common in Pungo River sediments. These teeth, while fairly narrow, had a rather thin blade and, paradoxically, a very bulky root, one which prominently overhung the blade on the lingual side of the tooth. Pat and Ken had collected these from the reject pile within plant grounds. She told me they were rather commonplace there.

When the phosphatic ore slurry is pumped to the processing plant it is screened one last time, producing the so-called reject material. This is very fossiliferous, containing many shark teeth, and generally is as many as 4 million years older than the Pungo River sediments exposed on the spoil piles in the mine.

Several possibilities could explain the relative scarcity of *I. retroflexus* teeth in the mine and their relative plenty in the reject material. A lot can happen in 4 million years: the species could have been proceeding toward extinction. The oceanic environment in the region which would ultimately become the Lee Creek Mine might have changed to the point where the species went elsewhere.

Very kindly, Pat lent me about a hundred of these teeth so I could try to create an artificial dentition. To represent all tooth positions on one side in both upper and lower jaws would require about 25 teeth. This sample was not varied enough for that. However there were enough different positions to put together what I would call a representative sample. You can see that on the back cover.

It is easy to see this species as a descendant of *I. praecursor*: many of the teeth are very similar. Who was it ancestor to? *I. oxyrinchus*???

The largest tooth in the collection is the one pictured below on the left side of the lowest picture. It is a respectable 1¾" high, far smaller than the 3" monster *Isurus hastalis/xiphodon* which very rarely turn up at Lee Creek.
Richard Chandler



Isurus hastalis and *Isurus retroflexus*:
root overhang on upper principal anterior teeth.



Labial “shelf”

Cusplets



Isurus retroflexus: three outstanding examples.

NORTH CAROLINA FOSSIL CLUB, INC.
(Founded 1977)

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2004 MEMBERSHIP APPLICATION - NORTH CAROLINA FOSSIL CLUB

NAME(S) _____

ADDRESS _____

CITY, STATE, ZIP _____

PHONE(S) (INCLUDE AREA CODE) _____

E-MAIL ADDRESS _____

SELECT ONE TYPE OF MEMBERSHIP	INDIVIDUAL (NEW)	\$20.00
(ENCLOSE CHECK OR MONEY ORDER	INDIVIDUAL (RENEWAL)	\$15.00
FOR THE INDICATED AMOUNT.)	HOUSEHOLD (NEW)	\$25.00
	HOUSEHOLD (RENEWAL)	\$20.00

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.

NCFC Liability Statement

The Undersigned hereby acknowledges his/her understanding that fossil collecting is an inherently dangerous activity which can result in serious bodily injury or death, and/or property damage and hereby confirms his/her voluntary assumption of the risk of such injury, death or damage.

The Undersigned, in return for the privilege of attending field trips Related to the collection of and/or study of fossils, or any other event or activity conducted or hosted by the North Carolina Fossil Club (NCFC), hereinafter collectively and individually referred to as "NCFC Events", hereby releases the NCFC, NCFC Board members and officers, NCFC Event leaders or organizers and hosts, landowners and mine or quarry operators from any and all liability claims resulting from injury to or death of the undersigned or his/her minor children or damage to his/her property resulting from any cause whatsoever related to participation in NCFC Events.

The Undersigned agrees to comply with any and all rules and restrictions which may be communicated to the undersigned by the NCFC Event leader and/or landowner and mine or quarry operator and acknowledges that failure to comply will result in immediate expulsion from the premises.

The Undersigned acknowledges that this release covers all NCFC Events and will remain in effect at all times unless or until it is revoked by written notice to the current President of the NCFC and receipt of such revocation is acknowledged.

The Undersigned further attests to his/her intent to be legally bound by affixing his /her signature to this release.

Name _____ Signature _____ Date _____

Name _____ Signature _____ Date _____

MAIL TO: NORTH CAROLINA FOSSIL CLUB, P.O. BOX 13075, RESEARCH TRIANGLE PARK, NC 27709

North Carolina Fossil Club
P.O. Box 13075
Research Triangle Park, NC 27709



Isurus retroflexus: Representative Teeth
Courtesy Pat and Ken Young