



JANUS

THE NEWSLETTER
OF THE
NORTH CAROLINA
FOSSIL
CLUB

1997 NUMBER 2

President's Message - May 1997

The North Carolina Fossil Club's participation in the Aurora Fossil Festival was a resounding success. This was due to the members who generously gave of their time to participate in our display. The Town of Aurora gave us good display space which our members amply filled with great fossils and people. I'm very pleased with the members who made this a success for the club. I think the whole club owes a "thank you" to these members. It is no small feat to gather one's fossils, organize a display and transport it to the display site. Those members who volunteered their time to help by sitting with other's exhibits were equally valuable to the success of the show. In many ways it is harder to be a helper because the job requires sitting with someone else's prizes, but having none of your own to show off.

The town of Aurora also appreciates the club's participation in helping their festival be the success it was.

I would like to thank the club who made a point of cheering me on when the float I was on as "Fossil Marshal" passed the building where the club was displaying.

I look forward to equal or better support for next year's Aurora Fossil Festival.

Finally I would like reply to inquiries about where the promised seal/porpoise skeletal anatomy book is. I hoped for release during the Fossil Festival. Unfortunately, I have a habit of filling my plate too full. I had to work an unexpected amount of overtime this spring further defeating the goal. I'm working on the illustrations again. I'm about $\frac{3}{4}$ finished with the porpoise. I still have to write and design the book. I'm not promising a publishing date; I have learned not to do this any more. For my own sanity I would like to have it published by this fall. I will keep you posted. I appreciate the inquiries from interested club members.

Have a good summer. See you this fall.
John Timmerman

Trip Reports

PCS - Lee Creek Collecting Trip - March 8, 1997

The early spring weather could not have been more perfect for the club's visit to the quarry, blah, blah blah... Club members were full of anticipation for the coming day, etc., etc., etc. . . . Though there was shortage of giant shark teeth, members were successful finding smaller shark teeth etc., etc. . . .

This trip becomes harder to write about each season. What more can be said for the collecting at this quarry. It is the best we have in North Carolina! Each trip I write a report that sounds like the last one. I did not keep close track of what was found this time as sometimes in part because of the predictable success.

Richard Chandler, newly inspired by reports of large quantities of large shark teeth found in the mine, had dreamed the previous night of collecting six large *C. megalodon* teeth. Many of you who know Richard may be surprised to learn he had such mundane dreams but would also figure if any one could do it, he could. Soon after entering the pit he found his first *megalodon* tooth. The day looked very promising. During the next several hours he found 4 more and about $\frac{1}{2}$ hour before quitting time he found his largest and sixth *megalodon tooth*, in the bottom of a foot print, cracked in half. All were in beautiful condition save for the broken one which subsequently glued back together nicely. The only drawback was the size of the teeth he found: the largest tooth, the broken one, measured three inches tall, the smallest about one inch.

I too collected with high hopes of giant shark teeth. I had somewhat lower expectations, wanting only one tooth, 6 - 6 $\frac{1}{2}$ inches high. No, I do not already have one this size. I attained half the goal with a 3 $\frac{1}{4}$ " specimen. This was equivalent to a 6" tooth, if the finds of the trip are all taken into account. Many people had luck similar to Richard's and mine. Though it was not what we hoped for we were

pleased. After all "a bad day at PCS is like your best day any place else."

Finds:

Though I have only a vague idea of what was found the following are a few I do know about.

Bobby O'Hearn - 3.5" lower anterior *C. megalodon* tooth

Caroline O'Hearn - seal canine tooth

Richard Marshall - 4.5" broken *megalodon* tooth*

This was significant because his daughter Wendy was with him when he found it, proving to her that people don't simply bring big teeth into the mine, then later claim to have found them there (something many of us have wondered about from time to time).

Margaret Davis - *Parotodus benedeni* tooth

Joy Pierce - section of sperm whale jaw with tooth sockets

Uwe Heine - large (unusually nice) whale vertebra

John Timmerman

Thirteen members and guests met at the **Martin Marietta Quarry at Rocky Point** on March 20, a beautiful day with the weather being perfect for fossil hunting. We were able to get signed in and allowed access to the mine around 11:30. Mr. Doug Pope, the new Mine Manager was thanked for looking after us.

We proceeded to the designated parking area and each took off to his or her favorite spot with instructions to be back around 4:30 as we have to be signed out by 5:00.

I returned around 4:30 and most of the group had already left. Dewayne Varnam found 2 *C. auriculatus* teeth, one being a perfect 3½" anterior tooth - a real beaut. Joy Pierce found her "usual stuff" and for the first time ever a perfect 3" *auriculatus* anterior tooth and 3 nice crab carapaces. The writer had a fantastic day, finding the following: 2½" lateral *auriculatus*, a billfish rostrum, 2 *Carcharias vincenti*, 6 *Galeocerdo eaglesomei*, 4 *Carcharias koerti*, 1 *Isurus praecursor* and 2 *Striatolamia macrota*. I think all had a good time, I certainly did. John Everette

Thirteen members and guests met at the **Martin Marietta Quarry at Castle Hayne** on April 17, another beautiful day for fossil hunting with perfect weather. We all arrived and signed in and were ready to go by 11:30. I was told to take the group to the right side of the mine as they were going to shoot about 2:00. We went out and parked and I informed the group that if anyone wanted to go to the other side to meet back at their cars after the shot. I think

everyone found some echinoids; a few broken *C. ariculatus* were also found.

After the shot most of us went to the other side where everyone could find Cretaceous material - many small mostly river worn teeth. When I returned to the car only Scott Chapman was there so following is what I am aware of being found. John Paschal had many small teeth and several nice crock teeth and a crock vertebra. Scott Chapman had a nice variety of teeth. Ed Hoiles had a 5" dia. slit shell and a *Linthia hanoverensis*. John Timmerman had a very good day finding a 3½" diameter complete *Aturia*, 5" diameter slit shell, *L. wilmingtontensis* and *L. hanoverensis*. The writer found 3 nice *Squalicorax pristodontus*, 3 juvenile *auriculatus*, ½" *Mosasaurus* tooth and many small teeth. I'm certain the others whom I didn't get the chance to see also had a good day. John Everette

Aurora Fossil Festival

As the Memorial Day weekend drew near, friends and coworkers begin to quiz one another about their holiday plans. When I enthusiastically announced that I was attending the Aurora Fossil Festival, the responses ranged from the puzzled to the politely curious. I'll guiltily confess that my primary motivation in volunteering to help at this years Fossil Festival was to reserve a space on our fall trip to the PCS phosphate mine. Not that I've ever been there, or had any idea why it was a good place to collect. As a newcomer to the Tarheel State, and a new member of the North Carolina Fossil Club, I figured that if volunteers were rewarded by a reserved spot, then it must be hard to get on the trip list and it must therefore be a great place to go. So I called John Timmerman, a month in advance (as those of you who are sponsoring trips know, I always call a month in advance!) and volunteered to help out both days. John kindly recommended a place I could stay, so I wrote the information in my calendar and made my plans.

As the weekend adventure drew near, my curiosity increased. Would I meet many members, would I make any new friends, would I see fantastic sights, would I learn anything about this compulsion I have of picking anything, and everything (including the infamous leverites) up off the ground and lugging it home? The anticipation crescendoed to great heights! So with veins full of adrenaline, I rose at 3:00 AM Saturday morning, filled my thermos with coffee and set out on roads I had rarely traveled before.

Arriving in Aurora at approximately 6:00 am, I was very pleased to meet John and Nancy. Their

cordial, open manner set me at ease and I knew that, at the very least, I would enjoy their company for the duration. The North Carolina Fossil Club banner was proudly hung on the exterior of the building. When members began to arrive and set up their exhibits, a new world began to open up for me. Exhibitors included Ray and Tricia Smith (fellow newcomers to this delightful world of fossils), John and Jane Smith, Trish Kohler, Joy Pierce, Richard Chandler, Candace Holiday, John Timmerman, Burl Hammock, Bob Stevens, Bobby O'Hearn, Wendy Marshall, Rufus Johnson, Judy Stiles, Thelma Bennett, Richard Tellekamp, Bill Little, Uwe Heine, Tom and Rita McCabe, and Steve Ames. Festival Helpers included Nancy Timmerman, Robert and Roxada Story, Betty Hammil and Judy Larrick. My favorite exhibit memories will probably appear unsophisticated to those of you who are more knowledgeable than I (trust me, it's the vast majority of you). And if I don't quite get it all right, please forgive me. This is all written from hindsight, my knowledge base is minuscule and my memory is, is, is, well, I just can't remember!

Saturday's Action

I'll never forget the enthusiasm of first-time exhibitors, Tricia and Smitty (Ray), as they proudly showed their finds. Smitty could often be heard explaining how he and Tricia found their section of mammoth tusk. He pointed out the characteristic cross-hatching that appears on the cross section of ivory and he demonstrated that this particular fossil was amenable to the human caress. The ivory had small indentations on it and when a hand was rubbed rapidly over the holes, the tusk responded with a musical popping sound. This marvelous display was usually followed by a demonstration of the "amber scope". A cylinder, open at one end and covered with clear plastic at the other, held a large piece of dark indiscriminate material. However, when a flashlight was shone through the material, (by virtue of the clear plastic), it danced with an inner orange light and bits of primordial detritus could be seen. I'm sure they entertained many besides myself.

Joy displayed fascinating material related to ear bones. I had never even considered that ear bones could be found! The comparisons she drew between human and animal ears were delightful and quite educational. Rufus showed petrified wood and plant fossils dug from the earth of Chatham County . . . near enough to my home to make me consider some

spontaneous exploration of my own some weekend. Trish's exhibit simply couldn't be matched for sheer diversity. Mammal, bird and reptile fossils all found their way into her display. She also excitedly discussed her treasures, including a unique rhinoceros fossil she recently had identified. I had the opportunity to sit at Candace's exhibit for much of the weekend. I was particularly delighted by the juvenile megamouth tooth in her display. As I usually end up with fossils no bigger than a pin head, I was grateful to know even these can have great meaning! Burl and Bob had a wide variety of arrowheads displayed to complement their sharks teeth. John and Jane displayed a marvelous science fair project of their sons Jeremy, Joshua and Jared. They compared sharks teeth they found in two river regions to determine if they came from the same distribution of species. Fine work for these young scientists and they have my every encouragement for continued exploration and discovery. John had a marvelous display that included both contemporary and fossilized shells. This allowed the observer to compare shapes and colors across the eons. He also had some beautiful items displayed with the matrix in which they were found. As Grand Marshall of the festival, he had taken special care to make sure his exhibit was self-explanatory so that all those who viewed it could understand it. Wendy had an interactive display of "splitable" rock from Montana which yielded fish fossil. She enticed Nancy Timmerman to take hammer and chisel in hand and begin chipping away at the rock to yield the characteristic brown outline of fish on the white matrix background. Bobby displayed human artifacts to complement his sharks teeth, though he is vexed by his desire to find a horse tooth! From a personal perspective, the thing that impressed me most about Richard Chandler's presence was the fact that he was able to convince me to write this article . . . special thanks, Richard, for your continuing work on the JANUS! The interactive nature and diversity of exhibits earned the North Carolina Fossil Club an Honorable Mention Award!

Besides the exhibits, Saturday was punctuated by a wide variety of activities marvelously supported by beautiful, sunny skies. The parade came down main street at noon. North Carolina Fossil Club members were treated to an unobstructed view of the parade route: due to the hot sun most observers chose to stand on the opposite side of the street, seeking shade. Parade watchers were treated to a procession of town

officials, a Marine Marching Band, Miss North Carolina, the local High School Band, several entertaining performances by local Shriners organizations, antique cars, horses and Harley Davidson motorcycles. The best of all, however, was the appearance of the Grand Marshall, our own John Timmerman. North Carolina Fossil Club members lined the street and cheered madly when his float passed. His hard work was well appreciated. As the day continued, performances by singers, dancers, extreme bike riders and clowns kept visitors entertained. For the hunters among us, the reject pile in Aurora's Town Center had been replenished with fresh material and many visitors, children and adults alike, could be seen digging through the stones for the fossil find of the day. The prize has to go to one lucky nine year old boy who shared his miraculous finds, two 5-6 inch C. megalodon teeth, with any and all passersby. Lectures were well attended throughout the day at Aurora's Fossil Museum and bus tours of the PCS Mine were enjoyed by many visitors. Craft displays and a petting zoo rounded out the festivities. A street dance was held Saturday evening, but, though I love to dance, I simply didn't have enough energy to indulge in the evening's festivities. Instead of dancing the night away, John and Nancy Timmerman, Trish Kohler and I visited a reject pile outside the town of Chocowinity. We gathered until sundown and found a porpoise jawbone, crocodile tooth, and several species of shark tooth. Following a friendly dinner, we ascended upon the Washington Hotel. After washing the finds from the evening, I found myself nearly crawling towards bed. I had just enough time to think "the bed's a bit too firm" before I fell into a deep, reviving sleep, warmed by the adventures of the day and a sense of well-being that comes from meeting people who are friendly, caring, enthusiastic, knowledgeable and passionate about something as crazy as digging in the dirt for bits of earth's past.

Sunday Dawns

Refreshed by a shower, coffee and a fast food breakfast, I found myself lured back to the Chocowinity reject pile. I promised myself an hour and went to work. Though I knew my car would be spotted, and bring knowing laughter to the lips of my previous evening's companions, I unashamedly staked out a spot and dug to my heart's content. I was encouraged by all the new knowledge I carried, based on my observations and discussions of the prior day.

Fascinated by an unending variety of shapes, I discovered my weekend find: a left lateral, lower cow shark's tooth. What a beauty, I thought, and already I envision a collection that might be worthy of display at the next Fossil Festival.

New exhibits at Sunday's event were as fascinating as Saturday's. Thelma and Judy's display was well explained, each item being associated with a wide variety of pictorial information and explanatory notes. And a special congrats goes to Judy for her good luck as she won the special stamp collector's treasure of stamps and cancellation notice commemorating fossils and the Festival. In addition to a variety of fossils, Uwe displayed a marvelous photo of this spring's comet, with both the gaseous and particle tails visible. The photo was accompanied by a small meteorite. I also found his pre-Cambrian stone sample intriguing. Tom and Rita had a fascinating array of fossils and Steve's fish teeth were among the most interesting fossils I had seen (though I would probably still pass over them, imagining they were stones). His whale teeth were also very intriguing. I was quite surprised to learn they are hollow. For me, the high points of Sunday's exhibit were Bill Little and Richard Tellekamp. These gentlemen share a real joy for amateur paleontology. Their displays consisted of finds they have made at the Martin Marietta Belgrade and Castle Hayne Quarries and I'm overjoyed that they have found so many different fossils there. They both had large boxes of samples for the children to explore and the sounds when they looked through the pieces and made their selection were reminiscent of wind chimes. I enjoyed Bill's recounting of field trips with school children and am truly grateful for the adventurous opportunity he and Richard provide to these young people. I'm honored to have made their acquaintance and look forward to exploring the world of fossils with them.

Another personal highlight from Sunday's activities was the opportunity to speak with George Powell. We spoke at length about the differentiating characteristics of sharks teeth and about the clues that can be used to determine if the tooth is from the upper or lower and right or left side of the sharks mouth. He related these clues directly to the function of the teeth: bottom for piercing and top for cutting. For this reason, bottom teeth are more pointed and have larger roots (since they must hold the struggling meal). Combined with the intuitive knowledge that the process of eating must compel the prey from the

mouth to the throat (i.e., the tooth curves towards the back of the mouth), you can make a fair assessment of the general placement of the tooth. His explanation, which makes the assessments easy, because they're directly related to the biological activity of feeding, convinces me George is a natural born teacher. I hope he is able to continue sharing his knowledge with fellow fossil collectors.

When Sunday finally ended and the exhibits were taken away, the banner taken down and tables and chairs returned to their dormant state, I found it was hard to say good-bye and begin the long journey home. Buoyed by warm embraces, and promises to travel to Wilmington for a visit, I departed my new found friends. I wish you good hunting and sincerely look forward to seeing you soon.

As for the next Fossil Festival ... you can count on my help and participation ... even without the PCS trip bribe. It was a most enjoyable weekend. Special thanks must be extended to Grand Marshall, John Timmerman, all the exhibitors and helpers for making this year's Aurora Fossil Festival an unqualified success for the North Carolina Fossil Club.

Ramona Krailler

A total of 27 club members and guests attended the May 31 trip to the **Martin Marietta Quarry, Belgrade** and had a wonderful time hunting and digging for their fossils. The weatherman had predicted rain but somehow it avoided us, making for a very pleasant day. To top that, a local church was having chicken dinners and delivered them to the digging site. ☺

Everyone found numerous small teeth and bone, and all went home a few pounds lighter with all the digging that went on.

Jim Barnhill and his family found a nice 5" *C. megalodon* tooth having a variety of colors which made it even more precious because of its revealing history. Sam Hawes (as usual) found a *C. megalodon* about 3¾" in excellent condition. Sam is a workaholic when he's at Belgrade. On an earlier trip there he found a 4½" *C. megalodon* tooth.

We were restricted to one side of the quarry because of production but were still able to collect the rare Oligocene echinoid *Psammechinus carolinensis*. Almost everyone found a few for their collection.

Thanks again to Bill Little for bringing his camper with the facilities. Hope to see everyone in the fall.

Richard Tellekamp

CONFESSIONS OF A NOVICE FOSSIL HUNTER

Armed with new knowledge gained at the Aurora Fossil Festival, a few gardening tools and two newly purchased books on fossils of North Carolina, I've made 2 trips to Martin-Marietta, Belgrade and one to Green's Mill Run, Greenville. These truths were extracted from the three trips: veteran fossil hunters are very helpful, nearly every bucket of North Carolina earth contains sting ray crusher plate, a collection of "give aways" can grow faster than a collection of "keepers" and hunting fossils can become so enthralling that its easy to forget to eat the lunch you've packed until the trip home!!!

What to Buy, Wear, Carry, Save and Anticipate: There are also more practical considerations to be made. I, personally, have found the following items to be indispensable: a thermos to transport hot coffee (I live several hours from the commonly known sites), an insulated quart picnic jug for water, a sturdy canvas backpack, insect repellent, sun screen and a good pair of shoes (mine are retired from aerobics classes, so they have plenty of support for standing and walking, and because they're retired, they can get dirty, wet, sandy, stinky, smelly and foul!). Speaking of shoes, carry an extra pair of comfortable shoes to change into for the drive home ... it would be a misery to drive home in wet, sandy socks and shoes. Generally, its OK to wear a sturdy pair of shorts and T-shirt. (Some trips REQUIRE long trousers, and a hard hat. If you're in doubt, the trip organizer can tell you about clothing requirements) The extended list of necessities depends on your approach to fossil hunting. For surface collecting you need items in which to store your finds, a small pointed tool (a screwdriver will do) and perhaps a small hammer (Ive been using a tack hammer). For storage, a multi-compartment vest, waist pouch or small, plastic, craft/tool organizer works well. You might want to save film canisters and other small containers in which to place your favorite finds. Lining some of these with foam (buy it at a fabric shop) to keep more fragile specimens intact is also a good idea. If you'll be digging, your list of requirements lengthens a bit. For example, there are a couple of different techniques used to mine the gravel layer at Martin-Marietta -Belgrade. You can sit and dig horizontally into the gravel layer, then collect and sift the loosened material. For this approach, small and large gardening shovels are adequate for digging: the large one for clearing out

your site and the smaller one for pulling loose the gravel layer. A miniature, pointed hoe can also be helpful for working the gravel layer loose. A large beach towel, rug remnant or blanket can make sitting a bit more comfortable. Knee pads can also increase your comfort. A very important tool is your sifter: wire mesh mounted in a wooden frame. Mine uses quarter inch mesh and is approximately 12 by 18 inches. The size of the mesh and frame is up to you. I've seen finer mesh, coarser mesh and frames as big as 2 by 3 feet. A second digging technique is to locate an area where the gravel layer is fairly close to the surface, excavate the surface material over a wide area then gently clear out the gravel layer, vertically. This technique requires shovels and a lot more digging, but no sifting. I haven't yet tried it because it requires so much digging but it may be a better approach for locating and removing larger fossils, intact. There's plenty of help from fellow NC Fossil Club members at Martin-Marietta, Belgrade and, on organized visits, they have extra tools and sifters for visitors to use. So if you just want to try it out without investing too much, this is an ideal site. If you'll be digging up fossils in water (Green's Mill Run) you may want to consider specialized water gear such as waders . . . though I wore shorts and a T-shirt over my bathing suit and waded in with heavy socks and gym shoes and was reasonably comfortable. Adding styrofoam floaters to your sifter will make sifting the heavy creek silt and clay much easier. A nylon-mesh lingerie-bag (guys, if you don't know, ask your wife!) makes a great fossil storage bag for water digging, (for the robust items) and a small plastic case in a pocket works well for more fragile specimens. For really great finds, you may want to leave the water and place it in your sturdier storage case. Although I imagine fossil collecting can also take place underwater (SCUBA), in caves (spelunking) and underwater in caves (I don't even want to think about it), you can really begin a fossil adventure with very little, fairly common, equipment.

Another Lesson Learned IT'S IMPORTANT TO SECURE YOUR FIND ONCE YOU HAVE IT IN HAND. To illustrate, consider an adrenaline-raising, near-disaster occurring on my second trip to Martin Marietta. We embarked on a surface collecting foray for small echinoids. This basically involves getting down on your hands and knees and staring at the white stones until you see an oddly symmetrical shape. I'd been lucky and collected six echinoids,

ranging in size from 4-14mm, four tiny crab claws (5-10mm in length) and a bit of crab leg. As these items are particularly fragile, they really can't be placed in a waist pouch (the plastic organizer was in the car silly me!). Holding them, gingerly, in my palm, I continued to crawl around with my nose pressed to the ground. Suddenly, a lizard popped out of a hole, right in front of my face, and scurried out of site. I shrieked (which was mistaken by my colleagues as a sign of a good find) and nearly threw my hands, and treasures, in the air. Fortunately, the desire to add these specimens to my collection prevailed and they were not thrown to the wind . . . but I did learn an important lesson about being prepared to store a few fragile goodies wherever you might be searching!

What I've found besides great people and a lot of fun, I've found a fair variety of material. I won't swear by my tentative identifications and I won't bore you with an exhaustive list but just share what, for me, were the best finds: Martin-Marietta, Belgrade (5/31/97): a 48mm Mako tooth, two bramble shark (?) dermal denticles, deer antler; Martin-Marietta, Belgrade (6/8/97): Crocodile tooth approx. 27mm long and 18 mm wide at base, echinoids, crab claws & leg bit, barracuda teeth, turtle leg bone bit, Parrot or Puffer fish mouth plate; Green's Mill Run: (6/15/97): belemnites (belemnites, belemnites and more belemnites - the largest is about three inches long!), a 53 mm Great White tooth, three (!) *Anomaeodus phaseolus* teeth, skate crusher plate, and lots of large (and largely unidentifiable) pieces of bone. So I still have lots of different things to find and hope to meet you all sometime, enjoying a mutually fun dig in the dirt!!!

Ramona Krailler

"I'd do anything for a horse tooth . . ."

It all started in the parking lot of our most recent collecting trip to PCS - Lee Creek on March 8. I was showing John Timmerman the 3½" *C. megalodon* and a very nice seal canine my wife Carolyn had found. He told me that someone had found a horse molar. I told him that I had been looking for a horse tooth for years with no luck and I'd do anything for a horse tooth. John jokingly said, "Go to Florida." He didn't realize it but that was all he needed to say to get the gears turning in my head.

A couple of days went past and I couldn't stand it anymore. That night I called John at home and asked him what he knew about Florida and the "BACK YARD FOSSILS". To make a long story short, he went out of his way to help me. He gave me several

contacts and even made some long-distance phone calls himself to ask people he knew if they would if they would help me have a successful and enjoyable trip to Florida.

Well, 8½ hours and 604 miles later my family and I and my son's best friend from kindergarten were having a great time in Florida.

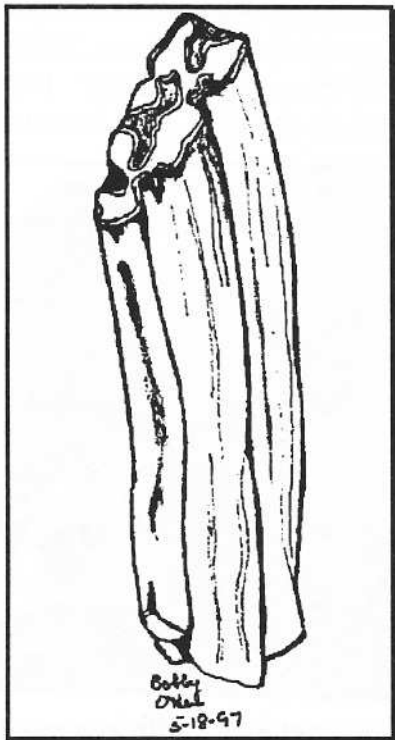
In 3 days of collecting I found 5! perfect *Equus* molars and one *Nannippus* (3 toed horse) molar, a small piece of deer antler, some very interesting pieces of turtle shell, several 2" - 3" ivory tusk fragments, and the best find of all, one perfect and 2 broken camel teeth.

It was a great family vacation and all of us found something.

I want to thank Frank and Betty Kocsis of the Tampa Bay Fossil Club. They were very generous with their time and hospitality and knowledge. Frank sent us on our way with several nice fossils from his own collection. He even made sure the kids each had a nice horse tooth to take home with them.

All in all, I improved my fossil collection tremendously and made some very nice friends to boot. I can't thank John Timmerman or Frank and Betty Kocsis enough. None of them knew me and yet all extended a lot of time and kindness to me and my family. THANKS.

John, I'd do anything for a *Notorhynchus* symphyseal tooth.
Bobby O'Hern



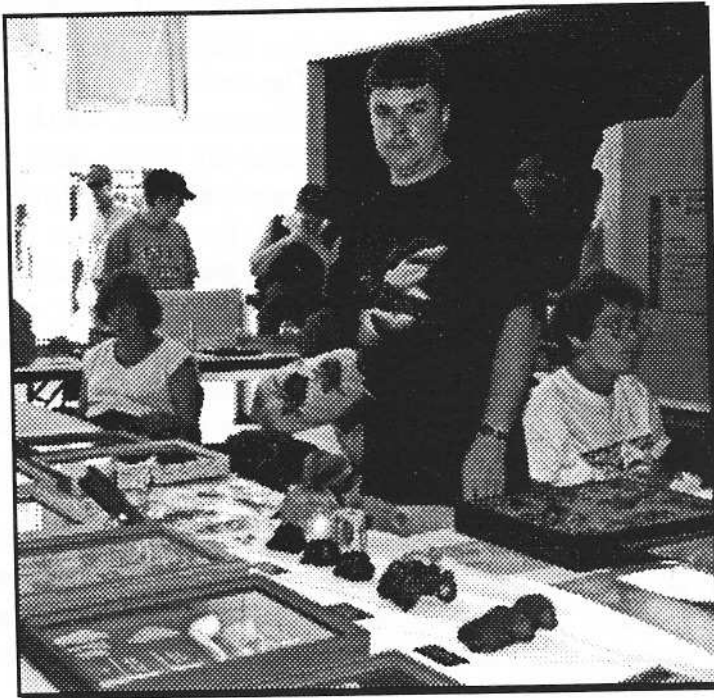
Horse Molar - Bobby O'Hern

Cretaceous Amber

On Saturday July 12 and Sunday July 20, Steve Ames guided avid fossil collectors on a hunt for Cretaceous amber along a branch of the Neuse River near Goldsboro, North Carolina. The amber is found in a 12"-18" layer of very black Cretaceous earth, which is exposed along the bank. A shovel-full of the earth is removed and carefully pried apart with gloved hands (latex gloves were really useful for this since the material becomes so finely divided that it's difficult to get out from under your fingernails!) Generally, the material naturally separates where large pieces of amber have been deposited. In addition, to the amber, which can range in color from very pale yellow to a deep brown/red, we also had an opportunity to unearth, look at and collect bits of lignitic wood and wood which had mineralized into iron pyrite (fool's gold). As with all fossil adventures, there is a palpable excitement knowing that you are touching material that has lay intact and undisturbed for 65 (to 135!) million years.

On Sunday July 20, seven collectors joined Steve and descended upon the site. The site itself was environmentally pleasant. In spite of typical July heat and humidity, we were comfortable owing to the shaded conditions. Each one of us was successful in finding reasonably large pieces of amber ... perhaps the nicest was a very clear, deep orange specimen about 3/4 inches in length. The women among the group described their visions of various pieces of heirloom jewelry with each new discovery (a bit of fanciful thinking, but enjoyable nonetheless). My favorite find is a smaller piece of yellow amber which has a dusting of fool's gold on the surface (a subtle reminder of the tree from which the amber sprung). In addition to our amber, most of us also carried out a few pieces of iron pyrite and fossilized wood collected during a walk along the river bank. Though this trip is a bit atypical, in that the object of the hunt is ancient plant material rather than animal material, it was enjoyed by all participants. The amber makes a unique addition to a collection and for collectors who desire a diverse sample of nature's primordial offerings, this site/trip is highly recommended.

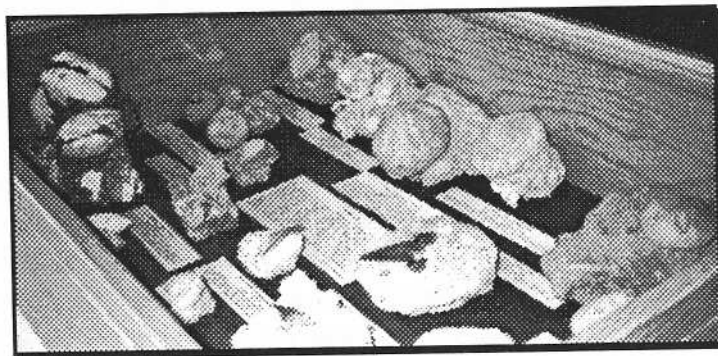
Photos from the Aurora Fossil Festival
 (All by Joy Pierce except as noted)



Bobby O'Hern with part of his exhibit.



Grand Marshall and Nancy.



John Timmerman's Fossils in Matrix Exhibit.



The photo Nancy was taking above.
 Back (left to right): Bob Stevens, Robert Story, Rufus Johnson, Joy Pierce, Trish Kohler. Front: Ramona Krailler, Wendy Marshall, (and two unaffiliated).



Part of John and Janie Smith's exhibit: Sons' Science Fair Project.
 (Nancy Timmerman)



A young admirer of Joy Pierce's Exhibit.



Ray (Smitty) Smith with interested onlookers.

Fossil Collecting in New Jersey

North Carolina Fossil Club members were invited to participate in week-end activities sponsored by the New Jersey Paleontological Society on May 31 and June 1. We collected trilobites, gastropods, coral, and crinoids in Devonian hard rock outcroppings in three sites located in northwestern New Jersey and northeastern Pennsylvania. On Sunday, we were given a special tour of The Great Russian Dinosaurs led by New Jersey State Museum's Chief Curator of Natural History, Dave Parris.

About twenty collectors, four from North Carolina, signed in with trip leader, Dwight Warren, at the first collecting site on trilobite ridge on Saturday morning. It was pretty easy to crack the rocks that had eroded down the steep hillside in this vacant lot of a comfortable residential area.

Devonian Period deposits on this part of the trilobite ridge included an abundance of segments of the *Dalmanite* trilobite. The *Dalmanite* tail or pygidium segments, many over two inches, were more abundant and generally larger than head or cephalon segments. They were beautifully preserved as internal and external molds. This site also provided a variety of brachiopods and a wonderful coral specimen measuring three inches across. Time flew by.

At the next collecting site, Rubin Hill, we walked a short distance into a meadow where we found a large area of scattered rock beds. A thin layer of sod covered other rock. The trick was to find a spot, any spot that suited you, loosen a section of rock, then break it into smaller sections so you could look it over carefully.

Club members, Rob and Lily Phillips from Chapel Hill, and their guest, Atsuko Negishi, hit a good spot and busily gathered their stash. The gastropod, *Diaphorostoma (Platystoma) ventricosum*, was common. I grew more interested in a naked sheet of rock just up the hill and knelt to run my hand across the flat rock surface. It felt as smooth as glass except for irregularly spaced grooves which were identified as glacial scrapings.

A steep road cut a few miles beyond Stroudsburg, Pennsylvania, was our next conquest. Be warned, collecting by the roadside without proper permission is illegal and you can count on being caught. We found ways to access the rocky curve and immediately clung on to happily tap our chisels against the solid rock wall. A few drivers stopped to ask what we were about and were stunned by the answers. That

reminded me of how I could have been a passer-by, too, had it not been for the New Jersey club.

This location gave me brachiopods, a few crinoid columns, small samples of bryozoa, and coral. Coral was very abundant. The site is known as "The Centerfield Coral Reef". The most aesthetically pleasing specimen that I saw was the brachiopod, *Spirifer purchisoni*, which was collected at this road cut. It was one of several brachiopods pictured as "very common" in advance information sent by club president, Howie Cohn. Most brachiopods that I found were small, an inch or less, but this one was twice that size.

Sample Eocene and Miocene brachiopods that Judy Stiles had helped me collect from the Castle Hayne limestone in North Carolina were distributed and were immediately appreciated for their glossy white beauty even though they look very plain Jane compared to the earlier Devonian species.

About a dozen of us met in Trenton for the specially arranged tour of The Great Russian Dinosaurs, an exhibit that included dozens of dinosaur skeletons and skulls among other fossilized creatures and plants recovered in Russia and Mongolia. A skull of *Tarchia kielanae*, one of the armored dinosaurs in the display, presented an unexplained hole near the right eye. The museum staff had the skull CAT scanned in Philadelphia and found that the dinosaur had cancer.

The North Carolina Fossil Club owes a hearty thank you to the New Jersey Paleontological Society for their warmth, hospitality, and assistance. We learned a lot, had a lot of fun, and treasure the Devonian specimens. It was a week-end of grand adventure.

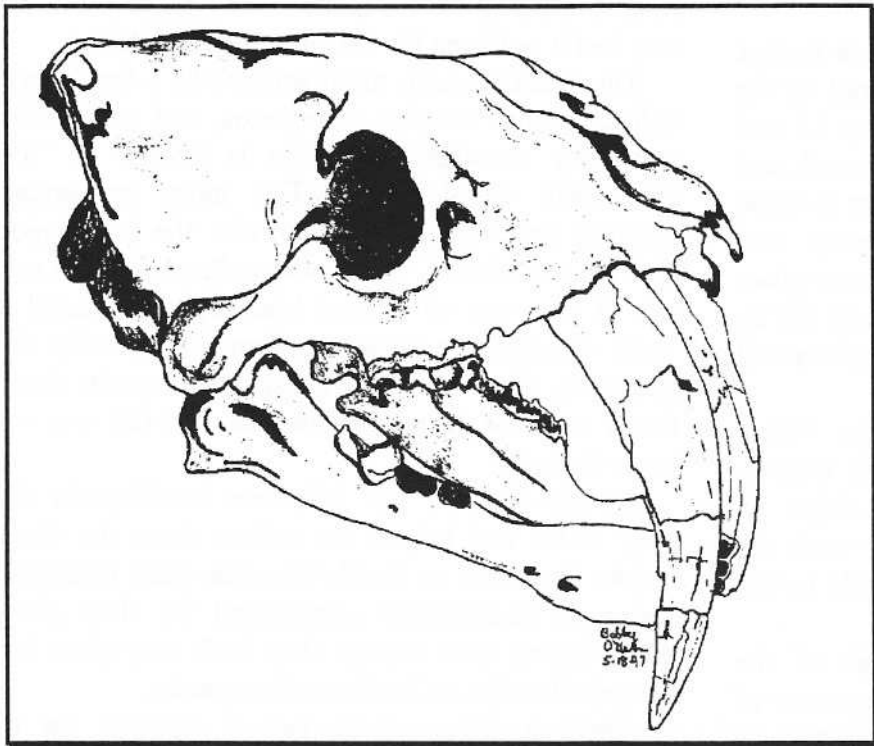
Joy Pierce

From the Editor:

As you can see, these paragraphs are my only contributions to *Janus* 1997 #2. I like it this way and want to express my heartfelt thanks to those members providing material to be used in *Janus*. Special thanks to Joy Pierce and to new members Ramona Krailler and Bobby O'Hern for their efforts. As you can see, the spring had some very interesting and different (from the past) trips. Yes Virginia, there are other places to collect besides PCS - Lee Creek.

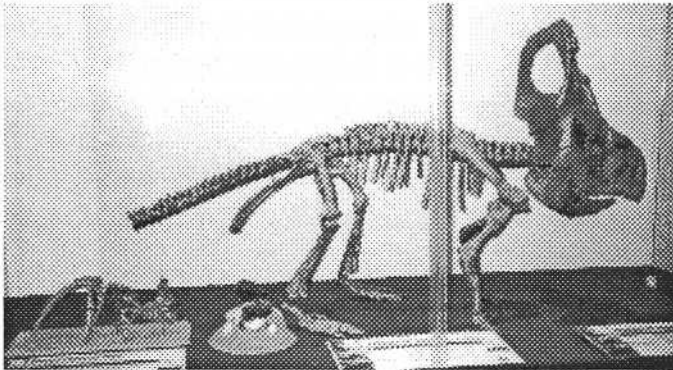
I want to apologize for the tardiness of this issue. As last year, I was exceedingly busy at the beginning of summer and simply could not put it together. It comes out with *Janus* 1997 #3.

Richard Chandler

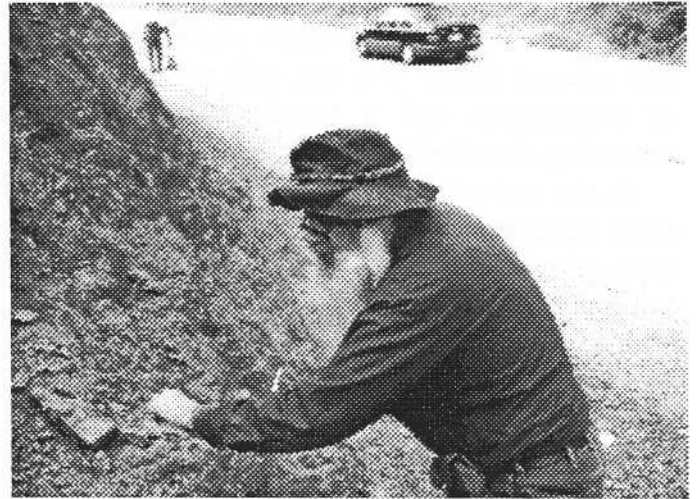


Sabertooth Cat Skull
Bobby O'Hern

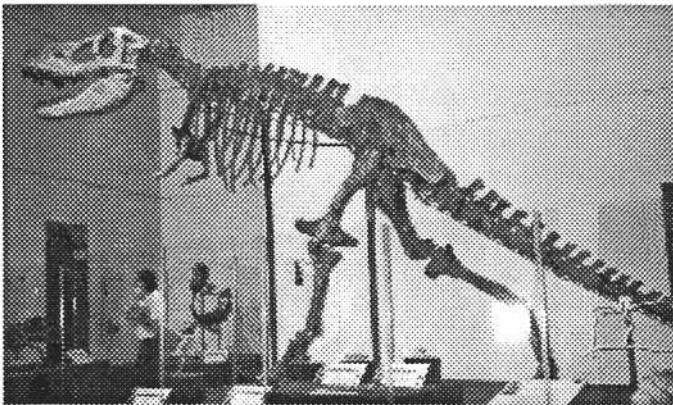
**Collecting with NJPC and Great
Russian Dinosaur Exhibit.**
Photos by Joy Pierce



Protoceratops andrewsi and hatchling



NJPC President Howie Cohn



19 Foot Tyrannosaurid dwarfs visitors



Rob and Lily Phillips collecting at Rubin Hill