



JANUS

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

2011 Number 2

2011 Summer Calendar

July

- 17 NCFC Meeting** – Museum of Life and Science, Durham, NC, 1:30 PM. Speaker - Edwin Cadena (NCSU): “Hunting the Largest Fossil Reptiles from the Tropics”. (See below.)

September

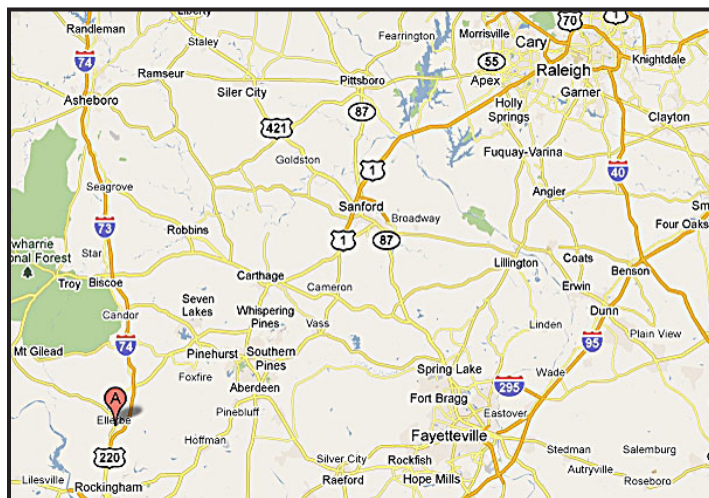
- 10 Mini Fossil Fair** – Rankin Museum, 131 W. Church St., Ellerbe, NC 10:00 - 4:00. Contact: Ruffin Tucker (704) 784-1672 or fossiler77@msn.com
- 18 NCFC Meeting** – NCMNS, 11 West Jones Street, Raleigh. 1:30 pm, Level A conference room. .

The Fall collecting calendar will be in the next issue of *Janus*.

The **Rankin Museum Mini Fossil Fair** will be at the Museum (131 West Church St. in Ellerbe, NC, map below) on September 10th, 2011 from 10am to 4pm. They will have 4 one hour sessions with 25 kids to work Aurora material and with outside and inside displayers welcome. They will have snacks, breakfast and lunch for us. Be there by at least by 9am to unload and set up. They plan to have a new lighting up by September! The Rankin Museum is a beautiful, largely undiscovered treasure of NC.

The July 17 NC Fossil Club meeting will be held in conjunction with the **NC Museum of Life & Science's Dino Days** (July 16-17) at the Museum in north Durham (map, p. 6). Several members will have exhibit tables on Saturday. A table outside at the Fossil Dig Pile (under an umbrella plus canopies over the fossil dirt area) will allow volunteers to interact with kids and their finds. There will be snacks, water, and lunch (as well as free admission to the Museum) on Saturday for the volunteers.

Museum Hours: 10:00 - 5:00 Saturday, 12:00 - 5:00 Sunday.



Long-time member, **Tony Furr**, died April 26, 2011 after a extended fight with cancer. He was a widely known fossil collector and particularly enjoyed trips to the Aurora Phosphate Mine with the Club and collecting plant fossils and finding the first cephalopod ever at the Union Chapel Mine in Jasper, Alabama. He was also a charter member of the Aurora Fossil Club. He was recognized by the North Carolina Museum of Natural Sciences as a Field Associate in Paleontology for his contributions of Ediacaran age fossils from Stanly County, NC in 2008. These fossils are rare and only found in 34 localities world-wide. They were not usually preserved since they were soft bodied with no hard parts. These fossils helped prove that the Carolina Slate Belt was part of an exotic island arc that was a piece of Gondwana, an early supercontinent that broke off and drifted across the oceans through continental drift and collided with North Carolina to form the Uwarrie mountain range and the gold mining region of NC and SC and Georgia. This region was originally thought to be part of Avalon, but has since been renamed to the unique Carolina Terrane. Tony was also a collector of coins, stamps, minerals and was an expressionist painter of note in the Charlotte area. He had a superlative sense of humor and told great stories. He was a valued personal friend who will be sorely missed by all who knew him.

Ruffin Tucker



“Well I’ll Be!”

David Grabda

We have this Market Mineral Shop here in Myrtle Beach, South Carolina that sells, of course, lots of minerals, thousands of beads, and there is half a table of fossils also so I like to check it out once in a while. Most of the fossils are the usual things like Green River fish for five to fifteen dollars which is a good price if you want half a fish skeleton.

Several months ago we stopped in and I noticed a basket on the table labeled Oreodont Teeth priced one to three dollars depending on size of fossil piece. The fossils were pretty well imbedded in a thin skin of hard tan sandy matrix making exact identification difficult but I noticed right on top what looked like a horse tooth so I poked around and found a couple more to take home to clean up and have a look at what they were. The next day I sat out on the porch with my electric engraver that made short work of the matrix. They are the prettiest horse teeth I’d ever seen with ivory dentine, tan opalescent enamel and a splash of ink running thru them. The horse teeth are much older than what we find here on the beaches as on uppers the protocone, a circle of enamel, is separated from the rest of the enamel at the anterior. This perked my interest up as we’d gone to MAPS shows in Illinois, shows in Florida and never found any of these type horse teeth for sale. A few months later we got to stop at the mineral shop again and I was determined to go thru the whole basket to see what else I could find. The sales lady gave me a basket to put in what I didn’t want and I lined up the pieces that looked interesting and different along the table edge hoping none would turn up to be oreodont teeth. I ended up with ten horse teeth, six being uppers. (Upper horse teeth can be identified by having two U-shaped islands inside the tooth pattern and posterior side has the sharp edge. Lower have a bowtie design and anterior side has the sharp edge.) Two uppers were unerupted, not used before the horse died. Twenty percent animals killed that young seemed a bit high. What kind of carnivores were there at that time? One upper seemed strange until I realized part of the lower molar was still attached to the upper. Was more of the skull there originally too? Suddenly I had visions of a fossil hunter using a jack hammer to extract fossils. I shuddered and tried to put it out of my mind.

With only the information on the basket, “Oreodont Teeth”, to go by I narrowed the horse teeth to possibly being *Cormohipparion occidentale* Leidy 1856 of Late Miocene age. Four Rhino teeth, species *Subhyracodon occidentalis* were dug out of separate pieces of matrix. None of them were in great shape but identifiable. An almost perfect pretty Camel molar was extracted out of the most expensive piece, three dollars, identified as *Procamelus* cf. *P. occidentalis* of Miocene age. It has the same neat colors as the horse teeth. The last piece, I thought, had three teeth in it, two teeth were triangular and a small rectangular tooth almost at a right angle to the other two. What was perplexing was they all seemed to be serrated. Who’s teeth are serrated? Shark teeth are serrated but these aren’t shark teeth. Maybe if it was cleaned up better. I grabbed the electric engraver and headed to the porch. Instead of three teeth it turned out to be two teeth that I’d seen someplace before. I ran to the display case and carefully pulled out a replica skull that Lucille had got me for Christmas years ago. There they were, the upper right molar one and premolar four of the Saber-toothed Cat *Hoplophoneus* species, the real teeth being serrated. “Well I’ll be,” I thought, and “I got them for a dollar!” Good hunting out there!



Cormohipparion occidentale (Horse)



Subhyracodon occidentalis (Rhinoceros)



Hoplophoneus sp. (Saber-toothed cat)

New NCFC Website

The NCFC has a new website that went live at the end of May (www.ncfossilclub.org)! After a number of years of frustration with a pretty inactive web presence, last July, Mary Boulton, then-president of our club, appointed Diane Willis to chair a committee charged with creating a new website. Joining Diane on the committee were Mike Bruff (our connection to a new web host, and currently one of the administrators of the website), Linda McCall, Joanne Panek-Dubrock, and Jeff Cohn. In January of this year, Allen Freeman joined us (professional web developer and new club member who volunteered to develop the site for us, i.e. to make everything function properly on the site). Allen is currently the overall site administrator and webmaster. The committee spent its first five months gathering ideas and suggestions for the website, transferring the domain ownership, arranging for the new web host, and trying to make decisions on a wide variety of topics. Starting in January, we had face-to-face meetings nearly monthly to hash out details and learn how to put information onto the test website developed by Allen. There were so many details to attend to! Our final deadline to go live with the new site was at the end of May when our old website was to be cancelled. It has been a long, twisty, and interesting process to get our new website working, and we've all contributed scores of hours working and re-working ideas. I am truly grateful to everyone on the committee for putting in so much time and energy to create this wonderful website!

Tabs at the tops of the pages lead you to the various sections of the website. The Home page introduces the club with its history and purpose. The Contact page lists our officers (with contact emails) and Board members. The Membership page outlines benefits of being a member and includes a downloadable form to mail to the membership chairman (Mike) in order to join. Our Publications page shows the three books sold by the club, and includes a downloadable order form. The Fossil ID Gallery is in its infancy and will be expanded, but currently resembles that feature from the old website. New features you will see include an interactive calendar (on which you can click to see more information about events or field trips); a Trip Report/Events section in which photos and text depict our collecting trips, fossil fairs, or educational outreach events; and a Members Only section (visible only after you log in as a member) for access to the Janus newsletter (including archived back issues), meeting minutes, and club documents such as the Bylaws, Rules of Procedure, and Articles of Incorporation. We still have some ideas to implement in the future, such as a geology section, links to museums, and a place to post fossil finds that need identification.

Here is how you get to see the entire website at www.ncfossilclub.org: If you are a current member, click on "create new account" in the box to the right of the content on the Home page. Enter the user name you would like to use, and the current name and email address that you provided with your membership form. Once your account has been approved, you will receive an email with instructions for creating your own password. You then will be able to log in with your new password and the Members Only tab will appear in the menu tabs across the top of the page.

The committee welcomes your comments and suggestions! As it stands now, Mike Bruff (mike.bruff@gmail.com) will handle most of the suggestions for changes and submissions, with help from Allen. If you have a trip report to submit, please email it to Linda McCall (lnmccall02@yahoo.com). Diane will do overall editing and welcomes your ideas (willis.dc@gmail.com). Please create your account, try out the site, spread the word, and give us your feedback!

Submitted by: *Diane Willis*

June 8, 2011

Trip Reports

The **Norwood Arbor Day and Fossil Fair** was held at the Norwood Town Hall with Charles and Pam Causey displaying their extensive collection of dinosaur fossils from Montana and the hit was the femur and foot bones from 3 different Hadrosaurs (commonly known as the duck billed dinosaurs) that stood 5 ½ feet on a steel frame. Roxada Story and friend Eve Alpin brought a beautiful collection of echinoids, bones and woods. Johnathan Fain brought his minerals and fossils and his cast of the famous German *Archaeopteryx*. I brought my Stanly Co. Ediacaran casts and SC and Alabama material and some of Tony Furr's fossils and a memorial remembrance notebook for the folks from his home town of Norwood to understand his fossil contributions from their county. Trish Weaver and Leah Fuller came from the North Carolina Museum of Natural Sciences in Raleigh with additional dinosaur material from NC and the Montana *Deinonychus* skeleton and puzzles and fossil shark teeth for the kids. Mary Boulton and P. R. Tucker worked with the folks on the pile of Aurora material on hand and many good shark teeth and a Squalodon tooth were found.

Ruffin Tucker

Twenty one club members attended the trip to **Castle Hayne** on April 8th. We hunted the usual area allowed by the quarry and had sunny and cool weather the whole day. A good mix of Cretaceous and Eocene material was found. Oscar & Charlotte Jones, Bob Blohme, Larry Byars and John Hairr found a nice assortment of small teeth and echinoids. Jerry Messick found two *auriculatus* – one large "heart break" 4 inches with a missing cusplet and tip. He also found a "two incher". Trish Kohler, Lori & James Waters, and Beth Heath found brachiopods, more echinoids and lots of small teeth. Eric Sadorf found a mosasaur tooth, a croc scute and some *Enchodus* teeth! Ronnie Wall found an assortment of small teeth while Bruce Hargreaves found a 1.5 inch *auriculatus* and two broken mosasaur teeth. Chris & Tracey Mayo found their usual variety of material – a beautiful nautiloid, a perfect 2 inch *auriculatus* and a huge sawfish rostral tooth! Dan Dombrowski brought his whole family (wife Claudia, daughter Allison and son Louis) and found a mixture of teeth and echinoids. Although all the day's finds made the collectors happy, two fossils received special attention. It's rare to find crab material but Linda McCall found a perfect crab carapace and a beautiful nautiloid (*Eutrephoceras carolinensis*) in matrix. This would make a nice addition to anyone's coffee table!

Seventeen club members met on April 29th for the trip into **Rocky Point**. Again we had great weather and the heat was not a big factor this year. We were limited in the morning where we could hunt due to blasting but after lunch were able to hit our favorite spots. At least 6 nice *auriculatus* were found by the group. George & Karen Marrier and their daughter Trinity on their first trip into Rocky Point found the nicest *auriculatus*. This "rick" had a huge root with both cusplets and only the tip was missing! What a way to begin your first fossil hunting experience! Oscar & Charlotte Jones came out with a whole bag of echinoids, some small sharks' teeth and a nice *Eurhodia* echinoid. Gerald Reel found a nice *Maretia subrostrata* echinoid while Todd Power and Tracey Mayo each found some quality nurse shark teeth (*Nebrius thielensis*) as well as an *auriculatus* in good condition. Ann Roberts, Ronnie Wall and Bruce Hargreaves all found echinoids and teeth. Chris Mayo found a beautiful *Linthia hanoverensis* echinoid while Linda McCall and Eric Sadorf both found a *Hardouinia kellumi* and many *Hardouinia mortonis*. Trish Kohler found a beautiful small "rick", sawfish vertebra & tooth. She also found plenty of echinoids and sharks' teeth. Even though the weather was very comfortable, by day's end it was apparent that summer was just around the corner.

We owe a very special thanks to Burnie Freas of Martain Marietta, Castle Hayne and Doug Pope of Martin Marietta Rocky Point for accommodating the North Carolina Fossil Club for another season of fossil hunting.

David Sanderson



Linda McCall's spectacularly presented nautiloid, *Eutrephoceras carolinensis*, is well in-hand.



The Crew is ready to "hit the slopes" at Castle Hayne.



As is Tracey Mayo's HUGE *Ischyrohiza mira* rostral tooth



As is Louis Dombrowski's very fine *Echinolampas appendiculata* echinoid.



Family portrait: Karen, Trinity, and George Marrier with new member Ric.



Another, slightly different, crew ready to "hit the slopes" at Rocky Point.



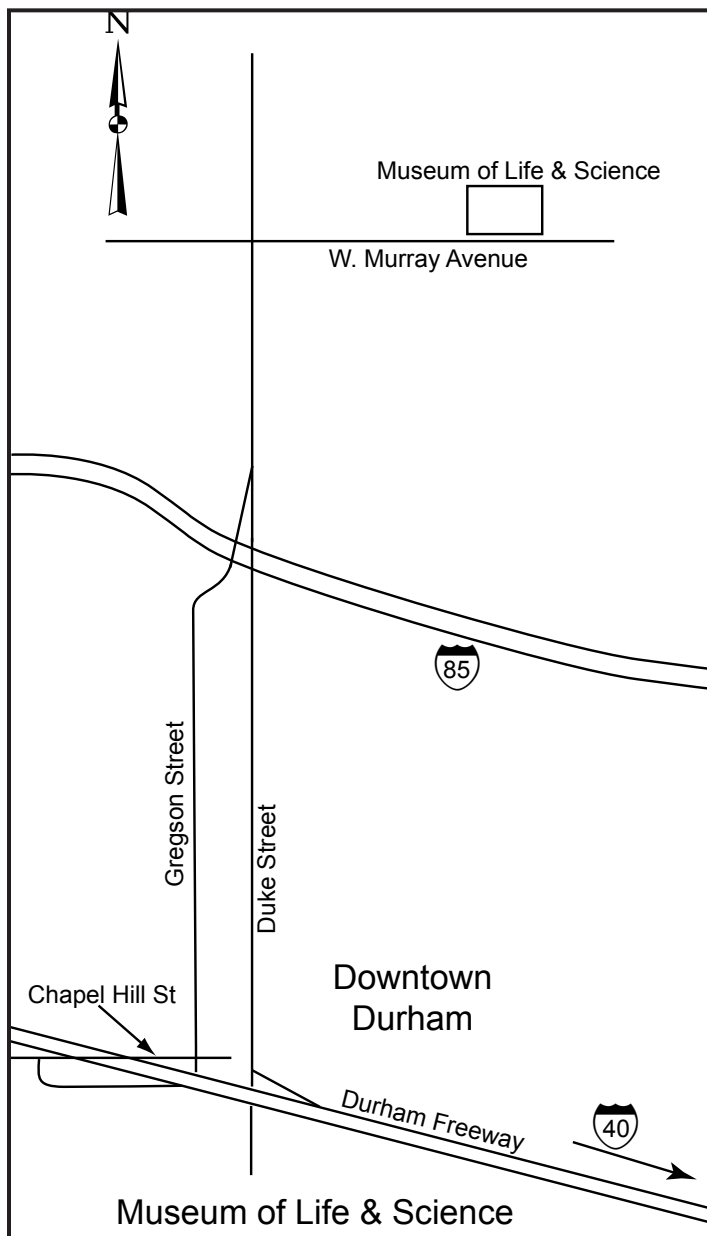
Charlotte and Oscar Jones' beautifully clean echinoid (an as yet unnamed subspecies of *Eurhodia rugosa*).



Chris Mayo's clean and rare *Linthia hanoverensis* echinoid.

I hope the "sideways" presentation of the photos on the preceding two pages is not too annoying. The 8½" x 11" format does not allow for a very aesthetically efficient placement of photographs which are in a 2:3 ratio of height to width. If you are viewing this as a .pdf file (using the Acrobat Reader), look for Rotate options in the View menu.

Editor



July 17 Meeting Place

CD ROM Progress

I think enough has been done on the project that I can (for the first time) give you a reasonably educated guess as to its potential size. Early on, I decided to format the pages to be 12 inches wide by 9 inches high. There were several reasons for this:

- the ultimate .pdf document pages would be the right shape to display well on a computer screen.
- for chapters consisting primarily of lots of photographs (e.g., Mollusks), this would allow their aesthetic placement.
- if the project were ever published (as a conventional book), this would be a nice "coffee table" size.

So here are the chapters, page count estimate, authors, and state of completion (F = essentially finished, M = more than 50% finished):

- 1. Geological Introduction** (15 pages)
Richard Olsen, Chris Tacker, Vince Schneider, Richard Chandler - F.
- 2. Plants** (21 pages)
Triassic Leaf Impressions: Richard Chandler - F
Fossil Resin: Rufus Johnson - F
Fossil Wood: Rufus Johnson - F
- 3. Miscellaneous Invertebrates** (26 pages)
Ediacaran Fauna: Ruffin Tucker - F
Micro Fossils: Eric Sadorf - F
Porifera: Richard Chandler - F
Cnidaria: Richard Chandler - F
- 4. Lophophorata** (~ 40 pages)
Bryozoa: Steve Hageman, Frank McKinney, R. Chandler - F
Brachiopoda: Linda McCall - M
- 5. Mollusca** (~ 190 pages)
Pelecypoda: John Timmerman - M
Gastropoda: John Timmerman - M
Scaphopoda: John Timmerman - M
Cephalopoda: Richard Chandler - F
- 6. Crustacea** (51 pages)
Decapoda - Cretaceous and Eocene: Don Clements - F
Decapoda - Miocene and Pliocene: Patricia Young - F
Cirripedia: Richard Chandler - F
Branchiopoda: Richard Chandler - F
- 7. Echinodermata** (58 pages)
Echinoidea: Judy Schneider - F
Crinoidea: Rufus Johnson - F
Stellerioidea: Richard Chandler - F
- 8. Fish** (~160 pages)
Chondrichthyes: Richard Chandler, George Fonger - F
Osteichthyes: Vince Schneider - M
Otoliths: Patricia Young - F
- 9. Reptiles and Birds** (~ 50 pages)
Reptilia: Vince Schneider - M
Aves: Kim Greene - M
- 10. Mammals** (~250 pages)
Marine Mammalia: Joy Herrington - M
Terrestrial Mammalia: James Bain - M

Grand Total: ~ 861 pages!

So you can see that the invertebrate material is mostly finished, the vertebrate material mostly unfinished. The folder on my computer which holds the photographs I have taken for the project contains more than 12,000 files. Of course, only a fraction of these will be used but I include the number to give you some idea of the scale of the project. I must say that when I proposed to the Club that we take on this project (back in 2002) I had no idea of its size. It's been a labor of love but I (for one) will be glad when it's finished.

Richard Chandler

NORTH CAROLINA FOSSIL CLUB, INC.

(Founded 1977)

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2011 MEMBERSHIP APPLICATION - NORTH CAROLINA FOSSIL CLUB

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ADDRESS _____

CITY, STATE, ZIP _____

PHONE(s) (INCLUDE AREA CODE) _____

E-MAIL ADDRESS _____

SELECT ONE TYPE OF MEMBERSHIP	<input type="checkbox"/> INDIVIDUAL (NEW)	\$20.00
(ENCLOSE CHECK OR MONEY ORDER	<input type="checkbox"/> INDIVIDUAL (RENEWAL)	\$15.00
FOR THE INDICATED AMOUNT.)	<input type="checkbox"/> HOUSEHOLD (NEW)	\$25.00
	<input type="checkbox"/> 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.

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 25276, RALEIGH, NC 27611-5276

North Carolina Fossil Club
P.O. Box 25276
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*North Carolina State University
announces that
Alexandra Maria Dubrock
is a candidate for the degree of
Bachelor of Science
in
Geology
at the
Graduation Exercises
Saturday, May fifteenth
Two thousand ten
Nine o'clock in the morning
RBC Center
Raleigh, North Carolina*