



# JANUS

The Newsletter  
of the  
North Carolina  
Fossil Club  
[www.ncfossilclub.org](http://www.ncfossilclub.org)

2012 Number 4

## 2013 Spring Calendar

### January

**20 NCFC Meeting** - NCMNS, 11 West Jones Street, Raleigh.  
1:30 pm, Level A conference room. Speaker: TBA

### February

**23 Schiele Museum Fossil Fair** - 1500 East Garrison Blvd., Gastonia. 9:00 - 4:00 Saturday, 1:00 - 4:00 Sunday,  
General contact: See below.

### March

**17 NCFC Meeting** - NCMNS, 11 West Jones Street, Raleigh.  
1:30 pm, Level A conference room. Speaker: TBA.

### April

**27 Norwood Arbor Day and Fossil Fair** 9:00 - 4:00  
(tentative) Contact: Ruffin Tucker at 704-784-1672 or  
[paleotck@netscape.net](mailto:paleotck@netscape.net).

Our complete Spring calendar will be in *Janus* 2013#1, in March.

The Schiele Museum of Natural History is inviting collectors and vendors to attend our popular event again this winter. The date is Saturday February 23, 2013. Hours are 9 AM – 4 PM. We're looking for collectors that would like to display their fossil and mineral collections as well as vendors that wish to sell fossils, minerals and related items to the public. As in past years there is no fee for vendors or collectors to participate. Last February, 900 people from around the Charlotte/Gastonia region attended this very popular annual event.

The museum supplies tables, chairs and power. All space is indoors, located in the museum's lobby and grouped in our upper exhibit areas for maximum exposure to our visitors. We also provide a number of hands-on activities and educational programs throughout the day to make our Fossil Fair a well-rounded experience for visitors. For those that need lodging we have a partnership with Hampton Inn that allows participating vendors and collectors a greatly reduced rate.

If you have worked with us before we would love to have you join us again. If you have not, please consider participating our event. To secure your space simply send me an email at the address below. Set-up details will be sent by mid-January. A flyer is attached that you are free to share with other collectors, vendors and programs that might be interested. Thanks – and we hope to see you this February!

**Contact:** Tony Pasour, Head of Interpretation  
Schiele Museum of Natural History  
1500 East Garrison Blvd.  
Gastonia, NC 28054  
Phone: 704.866.6919  
Email: [TonyP@cityofgastonia.com](mailto:TonyP@cityofgastonia.com)  
<http://www.schielemuseum.org>

## NOTES FROM THE PRESIDENT

Well, since we all survived the end of times on December 21, 2012 – it appears that a new year is upon us. How times flies - even more so it seems the older we get.... I hope everyone had a wonderful Holiday season, and managed to sneak in a little fossil collecting here and there when the weather turned nice. I know I did! A new year brings with it renewed hope (dare we wish for access to Aurora??) and expectations (I expect with Ruffin at the helm and rain in the forecast we will have a terrific spring collecting season). In addition, I have a few new ideas to share with the Board at our first meeting on January 6th, 2013.

See you all at the regular meeting on January 20, 2013!

*Linda*

The annual election of NC Fossil Club Officers and Board Members was held at the 2012 Fossil Fair and Annual meeting held at the NC Museum of Forestry in Whiteville on November 3. Linda McCall was elected President and Ruffin Tucker was elected Vice President.

Past Presidents: Rick Bennett and Jonathan Fain

Joining the four current Board Members (Joy Herrington, Jim Mahoney, Jeff Cohn, and Diane Willis) are new Board Members:

Eric Sadorf (2014)  
Tracey Mayo (2014)  
Rufus Johnson (2014)  
Dave Sanderson (2014)

## NCFC Board Meeting 01/06/13

The Board met to discuss several topics:

- The Bylaws and Rules of Procedure need a little “tweaking” to reflect the digital age. Diane Willis will make recommendations at the next meeting to prepare for a vote at the March meeting.
- It was affirmed that new Officers and Board members term of office begins at the close of the November election.
- Eric Sadorf will act as facilitator for the Aurora Fossil Festival. Joanne Panek-Dubrock and Tracey Mayo will have that role for our November Fossil Fair.
- Several ideas to promote Club camaraderie were discussed: Christmas party/“white elephant” exchange, an annual Club auction, a picnic/party with the Greens Mill Run collecting trip.
- The Club’s non-profit status is still pending with the Feds.
- Should we be collecting NC sales tax on book sales? Unresolved, awaiting non-profit status.
- Past budgets and the question of whether we should continue our liability insurance through the SFMS were discussed.
- The booklet we gave to all new members is no longer being published. Is there a reasonable alternative? (Unresolved)

## A Dinosaur Expedition

By Mike and Emily Bruff

(For photo gallery and map go to <http://goo.gl/kasxw>.)

On a recent Dinosaur Dig expedition out west, Emily and I had the opportunity to experience history spanning from the early fossil record, to the western expansion, to the modern era. Our main goal was a Dino Dig with [Casper College](#) in Casper, Wyoming. Wrapped around this real life paleontological expedition, were trips to various fossil sites, dinosaur museums and historic sites in and around Wyoming. A highlight was the newly reopened Quarry Exhibit Hall at [Dinosaur National Monument](#).

### Dinosaur National Monument, Near Vernal, Utah

<http://www.nps.gov/dino/index.htm>

The neat thing about this trip was that we got to see the source of fossils that are in a lot of museums across the country. Fossils are from the Morrison formation and date to the late Jurassic period. It's thought that the dinosaurs here probably died near the river plain during an extensive drought. The area has produced five sauropod species (one new



one, *Abydosaurus*), an *Allosaurus* and a juvenile *Stegosaurus*. A main attraction was the newly reopened [Quarry Exhibit Hall](#)

which covers the "world famous" Carnegie Dinosaur Quarry. The new climate controlled visitor center allows visitors to view a wall of over 1500 dinosaur bones representing almost half of the dinosaur species in North America. If you have time, you may also take a Ranger-guided tour of the grounds where dinosaur bones can be found sticking out of rocks. Emily's new favorite hobby is stumping park rangers with tough questions!

### Wyoming Dinosaur Museum, Thermopolis, Wy

<http://www.wyodino.org/>

The Wyoming Dinosaur Center in Thermopolis, WY has a Hall of Dinosaurs with over 30 mounted skeletons including the only *Archaeopteryx* in North America, "Jimbo"; a *Supersaurus*, one of the largest dinosaurs ever mounted; "Stan" a 35-foot T-Rex; and a *Triceratops*, the Wyoming state dinosaur. Dinosaurs walked this area in NW Wyoming between 65 and 145 MYA. The WDC has over 100 active dig sites spread across its 7000 acres. Visitors can also take a tour of the SI (Something Interesting) Quarry, participate in a real dino dig for a day, and

maybe even get a tour of the fossil preparation lab, or their storage area which includes a beautiful *Stegosaurus* specimen with skin impressions.



### Wind River Scenic Byway, South of Thermopolis

South of Thermopolis, the Wind River Scenic Byway stretches 34 miles toward Shoshone, WY.

Follow the scenic byway as it transports you through geologic time, from 300 million year old pink to 2.8 billion year old Precambrian cliffs.

Signposts along the highway identify and date the different rock layers.



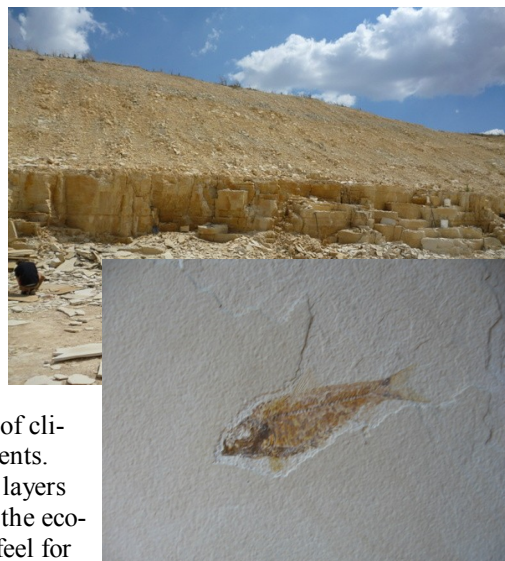
### Warfields Fish Splitting Quarry, Kemmerer, Wyoming

<http://www.fossilsafari.com>

Kemmerer, in SW Wyoming, includes several "quarries" where you can dig for your very own fossilized fish.

The fossils were created by several large lakes that covered the area for over 2 million years during the Middle Eocene. The rock layers also contain various ash layers that provide evidence of climate changing events. Splitting the rock layers allows you to see the ecosystem and get a feel for what it was like some 50

MYA. Finding fish was as simple as taking a slab, splitting it in half inch layers and looking for the story it had to tell. Predominant finds included coprolites, fish scales and both common and rare fish, including *Knightia*, which is Wyoming's state fossil and is the most commonly excavated fish..





## Fossil Butte National Monument, Kemmerer, WY

<http://www.nps.gov/fobu/index.htm>

West of Kemmerer is Fossil Butte National Monument. It's part of the Green River Formation and preserves the smallest of the three lakes (Fossil Lake) which existed some 50 MYA. Where once stood a lush forest is now a semi-arid desert. Fossil Butte's Museum includes the first known flying mammal, a horse, reptiles, and some rarer finds. The area is part of the Uinta Mountains. An interesting fact is that these mountains don't run north to south like the rest of the Rocky Mountains, but east to west. The mountains were formed by being pushed up, therefore, the

oldest rock layer is actually at the top because the rest was worn away. Preserved in Lake Uinta (or Fossil Lake) are fish, birds, reptiles, mammals and the *Uintatherium*, which was a saber-toothed herbivore with six horns!

They became extinct before the end of the Eocene, and were some of the largest land mammals of their time. Another very cool feature at Fossil Butte is the "Journey Through Time" that records events in Earth's history beginning 4.5 billion years ago. You can walk the timeline as it starts on the entrance road and continues along the railing outside the visitor's center. The timeline follows the Earth's history as it evolved into what we know today. It was fun to spot some of east coast events, including the formation of the Appalachian Mountains some 450 MYA.

## Flaming Gorge National Recreation Area, Utah

[http://www.utah.com/nationalsites/flaming\\_gorge.htm](http://www.utah.com/nationalsites/flaming_gorge.htm)

Heading south from Kemmerer, WY you pass through Flaming Gorge National Recreation Area and the Ashley National Forest into Utah. Signposts identify formations and evidence of ancient sea life. Notice the sign to the right, "Bizarre sharks and phosphate". Unlike the phosphate mined in NC, which is roughly 18-22 and 2.5-5 MYO (early to middle Miocene), this phosphate mine is above 6000 feet, is 280 MYO Permian and the phosphate has to be blasted out of rock.



## Utah Field House, Vernal, Utah

<http://stateparks.utah.gov/parks/field-house>

The Utah Field House is a nice museum in downtown Vernal. Its Jurassic Gallery houses, "Dippy", a famous *Diplodocus car-*

*negii* cast, donated by Carnegie in the 1900's. The actual bones are in the *Carnegie Museum of Natural History* in Pittsburgh, but were found in the Morrison Formation in Wyoming. Since its discovery over a century ago, the cast has taken on different positions. One book talks about when it was depicted dragging its tail on the ground, and the end vertebra would always disappear (there was a box of spares in the back so that they could replace it daily)! It is also



now believed that these dinosaurs roamed the land instead of spending their days in the water. They had peg-like teeth which means it didn't grind its food. (Different

kinds of herbivore teeth are clues to the types of plants they ate.) Also on display was a Pterosaur trackway from the Morrison Formation; and the oldest, most complete known new species of a sauropod (*Haplocanthosaurus*). It had signs of arthritis in its bones, so it appeared to die of old age and not a predator attack. The museum also includes a nice outside Dinosaur Garden ranging in age from Pennsylvanian to Pleistocene, and includes a rare *Stegosaurus* specimen that was found with the plates articulated, supporting the idea that its plates were staggered rather than parallel to each other, and held on the spine by cartilage, not bone. The Eocene Gallery includes a wall of leaf fossils found nearby.

## Red Fleet State Park, N. of Vernal, Utah

[http://www.utah.com/stateparks/red\\_fleet.htm](http://www.utah.com/stateparks/red_fleet.htm)

North of Vernal is the Red Fleet State Park which is home to the Red Fleet Reservoir and, on one of its banks, a trackway from a herd of small theropod *Dilophosaurus*. The trackway is at the end of a three mile "easy" hike across petrified sand dunes, evidence of an ancient desert. The trackways were created as dinosaurs walked through wadi deposits at the edge of an ancient lake some 200 MYA. Driving through Wyoming is an adventure in itself. In addition to being open range, you are likely to see wind turbines, large agricultural farms, oil rigs (the





sizes of which are determined by the depth of the well), semi-arid deserts and mountains.

**Tate Geological Museum, Casper College, Casper, Wyoming**  
<http://www.caspercollege.edu/tate/>

The Tate Museum has many interesting exhibits, including “A Walk Through Time”, Dee the Mammoth and Lee Rex. Dee is a 11600 year old Columbian Mammoth. Dee (named for the backhoe operator who found him) was found on a local ranch during the digging of an oil rig pad (how his left tusk got broken). There are lots of theories about Dee’s death, however the most probable is that he died from old age (65-70 years). Mammoths, like elephants, have 6 sets of four teeth, and as a set gets worn out, the next set pushes it out. The skull was found without teeth, and extremely worn upper ones were found near the pelvis, suggesting that she swallowed the last of her teeth and went off to die.



Lee Rex is a mostly complete articulated T-Rex. It’s still encapsulated in its field jacket and matrix (see blog at <http://www.tatetrex.com/blog/>). While missing its head, legs and the end of its tail (not many survive) they are still hoping to find skin impressions. Lee Rex is named after the ranch’s owner where the bones were found. This ranch, about 45 minutes north of Lusk, WY, and at an elevation of some 4250 feet, was also the home of our week long Dino Dig. The



site, called Promise Hill, is an exposed hill that is dry and barren in every direction. It’s a Late Cretaceous Lance Formation bone bed created by a meandering creek containing hadrosaur bones and other animals that lived and died about 65 MYA. It’s called

Promise Hill because there are a lot of promising fossil finds, but none articulated. Our dig started where the team left off last year with one rib and several smaller bones exposed, and ended with much, much

more. Finds included several ribs, a *Triceratops* and a hadrosaur tooth, pieces of soft shelled turtle, plant matter, long tendons, lots of “chunksaurs” (unidentifiable bone pieces) and on the last day, a nice T-Rex tooth. The dig included several different

methods for collecting fossils including preparing field jackets of plaster. We closed out the Dino Dig with a one day ichthyosaur dig at another location near Alcova Reservoir, about 40 miles south of Casper. The ichthyosaur is an ocean reptile that was discovered the previous summer by a geology professor and his students. Bones were not in good condition and were imbedded in hard matrix. While prospecting nearby, the group also found pterodactyl prints on the same hill as the ichthyosaur.

**Glenrock Paleontological Museum, Glenrock, Wyoming**  
<http://Paleon.org>

The Glenrock Paleontological Museum was founded in 1994 after the discovery of Stephanie, a *Triceratops*, north of Glenrock. The museum houses a number of dinosaurs from Wyoming ranging from the Jurassic to the Cretaceous periods. They also have a nice prep lab made up of a small group of dedicated staff and volunteers.



**The Mammoth Site, Hot Springs, South Dakota**  
<http://Mammothsite.com>

The Mammoth Site is the world’s largest mammoth research facility and features a large Pleistocene site displaying almost 70 mammoths uncovered and left in place including both Woolly (3) and Columbian (57) as well as many other animal species that were present during this period of the ice age. The large number of mammoths was created by a large sink hole that filled with water. As mammoths came up to the steep slopes to drink, they would slip in, and would be unable to get out, piling up on top of each other and dying. The site was found in the mid 1970’s during the excavation for a housing development. The bones are left in-situ inside a climate controlled building since they are not fossilized.



In addition to its paleo history, Wyoming is also home to some very interesting “recent” history. Just like the fish layers at Fossil Butte, Legend Rock Petroglyphs (see right), Independence Rock, the South Pass Overlook and the National Historic Trails Interpretive Center all have important stories to tell.



### **Outreach: Rankin Museum - 09/22/2012**

Ruffin Tucker, Richard Chandler, Joy Herrington, James Bain and Mary Boulton visited the Rankin Museum's during their annual fossil fair. Ruffin Tucker is shown with one of four groups that had "reservations" to dig fossils at the Rankin Museum in Ellerbe, NC September 22, 2012. Gail Benson, Museum Curator, organized volunteers to prepare individual buckets of Aurora reject material for each child and provided guide sheets in a collection bag for treasures. James Bain and Mary Boulton, both former Presidents of the NCFC, taught the volunteers and children how to wash and search the dirt. Richard Chandler and Joy Herrington had tables of samples from the Aurora dirt to show and helped identify fossils that were found. There were many happy faces! Ruffin Tucker set up a large display from his collection inside and is recognized as the originator of cooperation between the Museum and members of the North Carolina Fossil Club. What he started has become a county-wide educational event at which members of the NCFC still contribute.

### **Trip Report: Greens Mill Run - 09/22/2012**

On September 22, 2012 at least 17 club members explored Green's Mill Run (GMR) in Greenville. It was a perfect 70 degree sunny day. We all met at the Green Springs Park, but a few people visited other parts of the creek later in the day.

Thanks to John Steffensen for checking the water levels before we all drove to Greenville. In the photos you can see him showing us his treasures from many years of GMR hunting.

Mark Kearns and his family were particularly excited to tackle their first fossil hunting expedition. They found buckets of fossils, including a small periotic bone (dolphin?), *Squalicorax* tooth, and belemnite seen in Mark's hand in the photos above.

Emily Bruff was pleased with her finds, which included a fossil shaped like a cashew nut. For discussions of what this might be, do a Web search for "Emmons' fish tooth". There is plenty of discussion about it on [www.thefossilforum.com](http://www.thefossilforum.com), but I don't think there is a clear answer yet. See page 6 for Richard Chandler's idea on this enigmatic fossil.

George Marrier was having trouble finding belemnites until he discovered that they are plentiful where the creek crosses 10th Street. In the end George went home with a handful.

At around 1pm a few of us visited George Powell to see his fossil collection. George has created an amazing fossil museum in his home. In the photos you can see him captivating the kids. We all send a heartfelt thank you to George for sharing his collection with us!

If you want to visit GMR then take a look at the annotated online map at <http://g.co/maps/3mhr2>.

Here are the members who definitely attended. There may have been a few more who I didn't see.

Mark Kearns and family Genya, Alex, Joseph, and Katy, John Steffensen, Linda McCall, Mike and Emily Bruff, Trish and Louis Kohler, Kristin Holmes, George Marrier, Michael, Kenneth, and Rachael Troutman.

Thanks to everyone for attending! *Jeff Butterworth*

### **Trip Report: MM Castle Hayne Quarry - 09/28/2012**

Thirty one members participated in the Fall Castle Hayne club trip. Sunny skies and warm temperatures greeted the group. We were lucky that no shot (dynamite blast) occurred so we had the whole day to hunt. Due to the fact that the quarry was in full operation, we had the usual areas to hunt as in seasons past. We just appreciate the opportunity to get in Castle Hayne and hunt! Fortunately some nice piles of overburden with a mix of Cretaceous and Eocene material were available.

A portion of the group accompanied Linda McCall to the

"difficult" Eocene hills in the front while the remainder of the group "braved" the thick underbrush to hunt the PD / Eocene area in the back. Libby Smalley found two perfect *Maretia subrostrata* (echinoids). These were very clean with very little matrix and should clean up into perfect specimens! She also found the largest *Rhombodus binkhorsti* (ray crusher tooth) I've ever seen! Al Klatt found a beautiful *Coelopleurus carolinensis* (echinoid) in matrix. George and Karen Marrier & Linda McCall found a whole slew of common echinoids. In addition Linda found some nice Eocene bryozoa, brachiopods and a whole handful of "squid beaks" (*Anomalosaepia* guards)!

Todd Daughtry and his son Perry brought their Dad / Granddad (Tommy) for his first fossil hunting experience. In true beginner fashion, Tommy proceeded to find the largest *Carcharocles auriculatus* tooth of the day! Only a portion of the root was missing! Bruce Hargreave also found a small *auriculatus* tooth with a complete root and Trish Kohler found a beautiful small *auriculatus* complete except for a missing cusplet. Todd found the largest mosasaur tooth that I've ever seen come out of Castle Hayne – an absolute monster!!!

Mark & Lisa Mckoy and their sons Skylar and Kellon had great luck! Mark found two nice croc teeth while Skylar found a large *Anomaedus phaseolus* tooth battery (Cretaceous fish). With the help of Don Clements, Skylar and Kellon found multiple Cretaceous crab carapaces in matrix (*Avitelmessus grapsoides*). Amy Plaster's son Wyatt found a *Serratolamna koerti* shark tooth as well as a *Squalicorax pristodontus* Cretaceous shark tooth. Both Diane Willis and Eric Sadorf found *Enchodus* sp. teeth (Cretaceous fish). The Brinton family, Troutman family, Asolt Frecska & Fruzsina Toth, Mary Harbison and Gerry Case also participated.

Our sincere thanks go out to Burnie Freas with Martin Marietta for the opportunity to allow our club to hunt in Castle Hayne. This quarry always offers some great surprises!!

*David Sanderson*

### **Trip Report: MM Rocky Point Quarry - 10/12/2012**

Twelve club members showed up with beautiful weather for the Fall trip to Rocky Point. Unfortunately the quarry had scheduled a shot (dynamite blast) at 12:30 so we were restricted in hunting area until the shot went off. Some very nice and unusual specimens were found once we had a larger area to hunt. Unfortunately the pit area was off limits due to quarry activity. Michael and Kenneth Troutman left shortly after lunch and didn't have the larger hunting available after the shot. I did see them working hard on a large piece of matrix trying to extract what appeared to be bone! Peale Chuang found several nice echinoids, shells, coral and bryozoa. Ralph Brinton and his son Ralph Jr. found several nice *Hardouinia mortonis* (Echinoid) and Ralph Jr. found a belemnite, the first I've seen come out of Rocky Point! Mark Kearns found some nice Eocene echinoids as well as several *Hardouinia mortonis*. Todd Powers had a great day with four *H. kellumi*, two *Nebrius thielensis* (nurse shark) teeth, one posterior *auriculatus* tooth and several *H. mortonis* echinoids! Earl Guertin found four *H. mortonis*, several small Eocene shark teeth and a small sand dollar.

Some interesting and unusual specimens were also found on this trip. Tracey Mayo not only found four *H. mortonis* but a section of Cretaceous nautiloid. These Cretaceous nautiloids were huge compared to the smaller Eocene cousins. Tracey also found a very rare echinoid in Cretaceous material. It appears to be a *H. mortonis* but with a very wide periproct – possibly a *H. priscus*! Very unusual! Libby Smalley not only found a nice *H. kellumi* but a perfect crab carapace (possible *Opthalmoplax stephensoni*) and two *Agassizia* sp.? (echinoids). Linda McCall found two *H. kellumi*, some unusual Cretaceous oysters, and the most unusual find of the day: a *H. mortonis* with spines!!! The spines were





Ruffin Tucker and the crowd at the Rankin Museum.



There just aren't that many opportunities to hunt fossils near the Rankin Museum.



A great outing for Mark Kearns and family at Greens Mill Run.



Al Klatt's beautiful *Coelopleurus carolinensis* echinoid from Castle Hayne



Libby Smalley's two *Maretia subrostrata*, a *Pristis lathami* vertebra, and a HUGE *Rhombodus binkhorsti* tooth (CH).



Libby Smalley's *Ophthalmoplax stephensoni* carapace from Rocky Point.

very fine and hairlike – much longer than I would expect on such a little echinoid. This is the first for me to ever see. A great find!

The club wants to thank Doug Pope and Martin Marietta for the opportunity to hunt their quarry. We understand the risk they take to let groups hunt their quarry and appreciate the opportunity.

David Sanderson

### Trip Report: Texas - 10/25-30/2012

Eleven hardy North Carolinians headed to Texas for 6 days of non-stop collecting. The group consisted of: James Bain, Earl Guertin, Joy Herrington, Rufus Johnson, Ramona Krailler, Linda McCall, George Oliver and Diane and Bob Willis of the NCFC, and Kathleen and Walt Kubilius of the ECFC.

Thursday, Day 1 – our first stop was to pay a visit to my good friend Chris Sampson, a local Ft Worth resident, who is moving to Florida and was getting rid of a large portion of her collection so as to not have to move it. (How many of us would feel the same at having to move tons of rock across the country?) She had a variety of fossils up for grabs at very reasonable prices, and I think everyone came away with at least a treasure or two and large smiles on their faces.

Texas collecting is very different from North Carolina collecting. You don't just go to one site for the day. There are too many sites for that! So you go to multiple sites and spend several hours at each and hunt 'til you drop.

So, first we headed down the road a bit from Chris' house and spent a couple hours collected the dwarf fauna of the Cretaceous Pawpaw Formation. This particular site is known for its pyritic micromorph ammonites, and diminutive crustaceans. I think everyone was successful in finding at least parts of crustaceans, and several people found entire carapaces. Ramona was even lucky enough to find a shark tooth at the site.

Next we drove to Justin to meet Roger Farish and collect along Oliver Creek where he has access on private land. The drive across the fields, through the woods and down into and over the creek was thrilling enough – and we hadn't even started collecting yet! This site is Cretaceous Goodland Formation, with large *Oxytropidoceras* ammonites and innumerable Epiaster whitei irregular echinoids. Rufus found one of the rarer *Salenia mexicana* echinoids. Several folks banged out large ammonites, everyone had a great time, we hunted until it was getting dark and ended the evening dining with Roger and his wife Linda at a local place where we were serenaded by an Elvis impersonator – Joy was enchanted and Ramona had to dance (see pix). Does life get any better?

Friday, Day 2 started out much cooler and a bit rainy, so we drove an hour south to Glen Rose, Texas and attended the Fossilmania Fossil Show which, lucky for us, started that day. The show (which is put on by the Dallas Paleontological Society) had lots of dealers selling fossils, reference books, etc. as well as several educational displays. After a couple fun hours there we went across the street for some authentic Texas BBQ – a must for the trip – then a few minutes up the road to Dinosaur Valley State Park to view some of the best preserved Dinosaur tracks in the world. After a bit of searching around, we did find some pretty awesome tracks, as well as a much less than convincing “human” track alongside that has been the subject of much hoopla and debate.

The weather warmed up enough to get in some afternoon collecting, so we hightailed it to the Lake Benbrook Spillway – also Cretaceous Goodland Formation. Several folks found *Salenia mexicana* echinoids – the highlight of the site, as well as numerous gastropods and bivalves.

Saturday, Day 3 was a change of pace. We drove to the Bridgeport area to collect Texas Pennsylvania fossils. Our first stop was at what we call the “Big Spine site”, at the Lake

Bridgeport spillway. Crinoid “stem” pieces abound – even some bored, pathological ones, as well as bracs, large cidarid echinoid plates and spines, bryozoan, sponges, and a host of other fossils. The second site, only a few miles away, is known as the “Round Sponge site”, for the cool round sponges found here. We also found several crinoid cups and a few other neat things. The local police stopped by out of curiosity to see what we were doing and James found out the deputy was actually from a family in NC!

The next two stops were duds, as well as a harrowing drive through the back country to look around a local fellows' land that we met at the country store – but you never turn down the opportunity to take a look at private land – so several of us went back to the “Big Spine site” and stayed until the sun had set.

Day 4 consisted of several Cretaceous Duck Creek Formation sites around Ft Worth where we searched for (and found) large *Macraster* echinoids, and a few ammonites, then on to a couple more Cretaceous Goodland Formation sites – including one with the coveted *Salenia mexicana* echinoids. The end of the day saw a few folks heading over to a different Pawpaw site, where the fossil gods were kind to Ramona and she scarfed up a partial jellyfish impression.

Day 5 saw us heading north to Sherman, Texas to meet up with Ed Swiatovy, who would show us around Lake Texoma (Cretaceous Pawpaw, Duck Creek and Mainstreet Formations) and the Post Oak Creek area (Eagle Ford? Formation). We started at Russwood on Lake Texoma. This stretch of the shoreline is famous for its jellyfish impressions – though due to the lack of rain and heavy collecting, none were found this day. There were lots of other neat fossils collected though, including several associated cidarid plates and lots of spines. After lunch munched at our cars we drove south to Post Oak Creek – renowned for its large Cretaceous shark teeth. Again, the lack of rain and heavy collecting worked against us, though George managed a couple nice *Ptychodus* teeth, and everyone found at least a tooth or two. Ed and his wife Cathy joined us for dinner at an all you can eat Chinese buffet, where Ed passed out beautiful *Ptychodus* teeth for all! Full bellies and great fossils ended another wonderful day.

Day 6 – the final day, found us back at Lake Texoma at a site that yielded scores of *Macraster* and *Holaster* echinoids, much to the delight of all. A second site, well known for its large ammonites showed obvious evidence of heavy collecting, though Walt and George both managed to find and extract good sized specimens. The rest of us were happy with the large chunks of whorls with delicate suture markings laying all around. A few of us drove across the dam (and across the border) into Oklahoma for the traditional catfish dinner at “Windys”. A wonderful ending to a wonderful trip.

Linda McCall

### Trip Report: MM Onslow Quarry - 11/30/2012

Eighteen collectors attended the fossil trip to Onslow Quarry on November 30. After signing in and watching the required safety video we were escorted to the collecting area. The collecting area was small but had not been recently collected. At this particular area of the quarry the best collecting is done by digging into the top layer of dirt to reach a gravel layer that sits on top of the Castle Hayne limestone. This gravel layer has a mixed assemblage of marine and land animal remains. Since this is labor intensive, an alternate collecting method is to look through weathered piles left by previous digging activity for small shark teeth and bone and other fossils.

I didn't get the chance to see what everyone had found but most people left with some shark teeth and various pieces of bone. Wyatt Plaster found a nice *Carcharocles auriculatus* (or possibly *angustidens*) tooth, Jim Tunney had a nice collection of fish and shark teeth including some Cretaceous teeth- *Scapanorhynchus* and a pycnodont crushing tooth. Diane Willis found a nice matrix piece from the Castle Hayne



Formation that had both *Echinolampas appendiculata* and *Periarchus lyelli*. Bruce Hargreaves did some digging and found several *megalodon* fragments. I managed to find a nice *Carcharocles auriculatus* next to the parking area towards the end of the day. The weather was nice and we received good news that sometime next Spring we might have a whole new area to fossil collect as they are currently clearing some more land next to the current quarry location. Thanks to Martin-Marrietta Onslow Quarry for allowing us to collect on their property.

*Eric Sadorf*



Linda McCall's very large *Hardouinia kellumi*  
(Rocky Point)



Texas trip crew.



Spectacular *Micraster echinoid* (Texas)



*Carcharocles auriculatus* tooth in the weeds  
at the Onslow Quarry



Awesome dinosaur footprint from  
Dinosaur Valley State Park (Texas)



*Plicatoria wilmingttonensis* brachioopod (Onslow Quarry)

Note: These and many other trip photographs may be found on the Club's website:

[http://www.ncfossilclub.org/trip\\_reports](http://www.ncfossilclub.org/trip_reports)



# NORTH CAROLINA FOSSIL CLUB, INC.

(Founded 1977)

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	David Sanderson (2014)	(919) 469-2812	Cary, NC
	Diane Willis (2013)	(919) 967-1008	Chapel Hill, NC



## 2013 MEMBERSHIP APPLICATION - NORTH CAROLINA FOSSIL CLUB

NAME(s) \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY, STATE, ZIP \_\_\_\_\_

PHONE(s) (INCLUDE AREA CODE) \_\_\_\_\_

E-MAIL ADDRESS \_\_\_\_\_

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

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.

The Fossil Club's newsletter, *JANUS*, is mailed out four times a year and is available online for members. Please let us know how you'd like to continue receiving *JANUS*. If you choose to download it from the website, you will receive an email when a new one is published.

☐ I will download *Janus* from website ([www.NCFossilClub.org](http://www.NCFossilClub.org)) ☐ please continue to send a paper copy via US Mail

### 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.

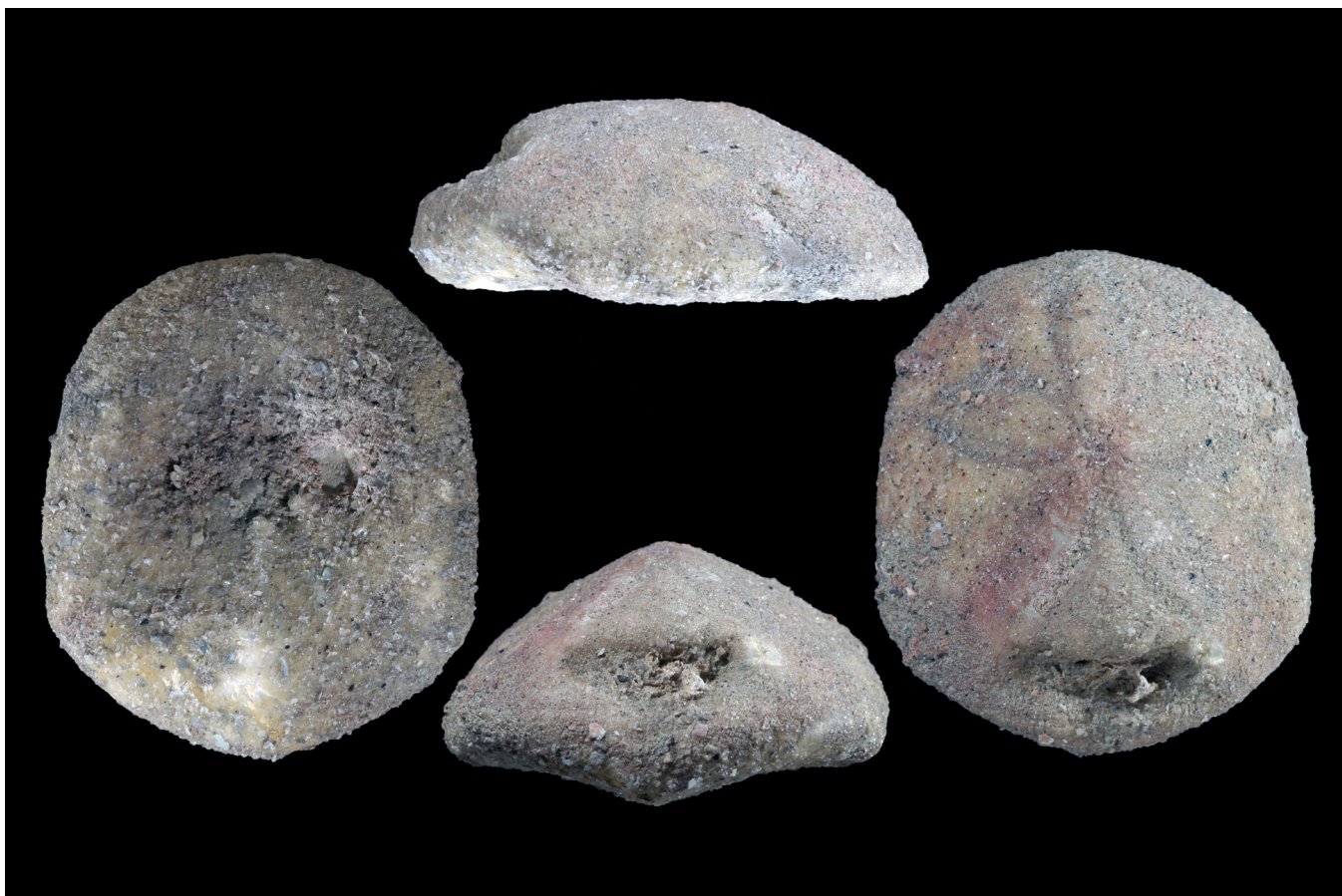
The Undersigned further attests to his/her intent to be legally bound by affixing his /her signature to this release.

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  
Raleigh, NC 27611-5276



Tracey Mayo's strange *Hardouinia* ?? from the Club trip to Rocky Point