# Highlights

- Shark Donated
- Squalodon calvertensis
- Carcharodon *predation at Lee Creek*

# Inside

- A Brief History of our Club
- Minutes from previous
  meetings
- Upcoming Field Trips

### The Newsletter of Calvert Marine Museum Fossil Club

Volume 19 • Number 1 April 2004 Whole Number 62

# The ECPHORA

**Upcoming club event:** Saturday, April 24<sup>th</sup>, 2004. Club meeting and public lecture. Fossil club meeting to begin at 12:30pm and will be held in the 3<sup>rd</sup> floor lounge in the Exhibits Building.

At 2:30pm in the Museum's auditorium, Mr.

**Tom Lipka** will lecture on the amazing fossils he has found and published on from the **Early Cretaceous Arundel Clay fauna of Maryland**.

# CURRENT HAPPENINGS IN PALEONTOLOGY AT THE CALVERT MARINE MUSEUM

John Supplee (Figure 1), poses next to a life mount of a female bull shark that he caught off Key West (Sand Key) in Florida, January 1994. In January of this year, he donated this fiberglass cast, with original dentition, to the Calvert Marine Museum. Come and see it up close during Shark Fest (Saturday, July 10<sup>th</sup>, 2004)!

In addition to which, he also donated moose, beaver, and deer skulls to our comparative osteology collection. Many thanks!!



Figure 1. Female bull shark with John Supplee.

# **Fascinating Fossil Finds**

This year's Fossil Club trip to Lee Creek Mine, North Carolina proved to be a good one for me. Although impressive shark teeth were hard to come by, I found a short segment of Rorqual (baleen whale, Balaenopteridae) rib that preserves what appears to be healed *Carcharodon megalodon* bite marks (Figure 2). Three swellings on the surface of the bone mark the location where the *C. megalodon* teeth impacted the rib. The swellings form a gentle curve along one side of the bone. The apex of adjacent swellings are about 2 <sup>1</sup>/<sub>4</sub>" apart, a dimension that would correspond to the distance between the tips of the impacting megalodon tooth. This dimension also gives us a close

approximation to the maximum width of each tooth. I do not yet know if the offending megalodon teeth were anterior or lateral teeth.

The close encounter with *C. megalodon* was not fatal for the whale however. The periosteum responded to the injury by forming these swollen bony calluses. I expect that an x-ray of the rib segment will show how the bone within reacted to the trauma.



*Figure 2.* A short segment of a baleen whale rib from *Lee Creek Mine showing three swellings, the result of healed* ?Carcharodon megalodon *bite marks.* 

# **Other News**

The fossil shark-tooth rulers have arrived!

**Stephen Godfrey** 

# Bite Me!...Just Don't say it in Australia...

Shark bites a guy and won't let go...he swims to shore...hobbles to his truck and drives to the nearest lifeguard station with the shark still attached to his leg!!! See the story at:

http://abcnews.go.com/wire/World/ap2004021 1\_879.html

# Our Club President...

On the day **Grenda Dennis** (Figure 3) joined our quarrying team digging on the now famous baleen whale skull from St. Mary's County, she spent most of the day slogging through, and moving heavy wet mud.



*Figure 3.* Color coordinated CMM Fossil Club President, *Grenda Dennis* moves mud off the top of the St. Marys Formation fossil baleen whale.

# Evolution of the Tetrapod Forelimb...

A nifty humerus (upper arm bone) found at the Red Hill site (Devonian) in Pennsylvania is shedding light on the origin of the tetrapod forelimb. See the story at: <u>http://msnbc.msn.com/id/4638587/</u>

As an expansion on this story, the CMMFC was able to obtain additional permission and images to compliment the news release above from the scientists at the University of Chicago. The find, will be in the next edition of the journal *Science* and will be featured on the cover.

Since the club does visit this location, usually in conjunction with several other fossil clubs, it is hoped that this additional information will be of

Club website: <u>http://www.calvertmarinemuseum.com/cmmfc/index.html</u> Club email: CMMFossilclub@hotmail.com

interest to those that usually make the trek to the site and also to those who have yet to do so.

Please note: Red Hill is an active research site for the Academy of Natural Sciences in Philadelphia, PA. No unauthorized personal collecting is allowed.



Figure 4. It looks rather bland, but these red cliff walls hold ancient fossil secrets. The site is located on a busy local roadway shoulder in central Pennsylvania's Catskill mountain region. (Credit Ted Daeschler)

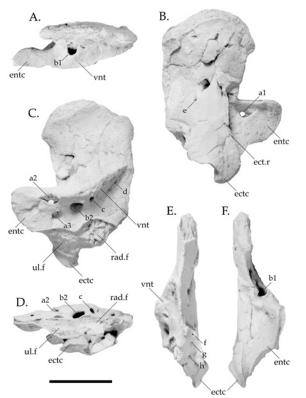


Fig. 5. ANSP #21350. Left humerus of an early tetrapod from the Late Devonian of Pennsylvania. (A) proximal, (B) dorsal, (C) ventral, (D) distal (ventral surface is uppermost), (E) cranial, (F) caudal view. Specimen whitened with ammonium chloride. Abbreviations used: ANSP, Academy of Sciences *Philadelphia*; Natural of ectc. *ectepicondyle; ect.r, ectepicondylarridge;* entc. entepicondyle; vnt, ventral ridge; rad.f, radial facet; ul.f, ulnarfacet.Foramina labeled arbitrarily with lower case letters (a-f). Unmarked punctures on dorsal and ventral surfaces may be bite marks. Scale bar equals 2cm. (Credit: Kalliopi Monoyios)



**Figure 6.** The road cut exposes ancient streams that contain fish, plants, invertebrates and some of the earliest amphibians. The excavator in the photo is **Neil Shubin**—on the very day in 1993 that they discovered the speciman. (Credit: **Ted Daeschler**)

### MANY THANKS TO NEIL SHUBIN, CATHERINE GIANARO AND THE REST OF THE TEAM FROM THE UNIVERSITY OF CHICAGO FOR SHARING THESE IMAGES.

# A Squalo-what? Squalodon calvertensis (Kellogg, 1923) The Long-Snouted Shark-Toothed Whale

By Jayson Kowinsky



Figure 1. This is my rendition of Squalodon. Notice the large pectoral fins, reduced dorsal fin, mobile neck, the long beak, and the front teeth protruding from the jaw, creating small "tusks." The body shape is based on an Irrawaddy Dolphin (Orcaella brevirostris), due to its large pectoral fins, mobile neck, and reduced dorsal fin. The head is based on many Squalodon skulls, the body pattern is similar to a Rough-Toothed Dolphin (Steno bredanensis), because I think it looks cool!

During September of 2002, Paul R. Murdoch Jr. made an interesting discovery. He found a fragmented Squalodon skull eroding from the Calvert Cliffs of Maryland. You may have read about this discovery in previous newsletters. During the next summer in July, when collecting with Paul along that same stretch of cliffs, I began complaining to him that a certain type of bivalve in the cliffs closely resemble bone fragments. I then frustratingly pointed out a particular seashell that looked just like bone to prove my point. To both our surprise, it turned out to be actual bone. After inspection and debate, we determined it was the end of a skull barely protruding from the cliffs. After obtaining GPS coordinates and contacting the CMM, Bill Counterman and Stephen Godfrey excavated the skull. It turned out to be another Squalodon skull! The species is undetermined, probably due to the poor preservation. It has the lower jaws missing, no teeth, no ear bones (used for identification), and the upper jaws are snapped and rotated from the skull. Despite not being in decent shape, it was another rare find. Because of these few and unusual *Squalodon* finds, I would like to take this time to explain what these strange creatures are.

Squalodonts, or shark toothed whales, are a kind of primitive whale that lived from the earlymiddle Oligocene into the middle Miocene, roughly 33 to 14 million years ago. The Squalodon genus belongs to the toothed whale order, the Odontoceti. It specifically belongs to the Squalodontidae. They are named after the shark Squallus, since the whales cheek teeth superficially resemble the teeth of the Squallus shark; hence the name "shark-toothed whale". The Squalodontidae contains three different groups of medium-sized (roughly 3 meters in length) shark-toothed whales. There are the short-snouted shark-toothed whales (Prosqualodon), the mediumsnouted shark-toothed whales (Phoberodon), and the long-snouted shark-toothed whales. This last group contains the genus Squalodon, which turns up at the Calvert Cliffs.

Strange mixes of archaic and modern features characterize the squalodonts. One of the most noticeable archaic features is their complex dentition. While other toothed whales at the time were evolving simple conical teeth, squalodonts retained their primitive teeth that their ancestors (the archaeocetes) had. What this means is other toothed whales, and now all living toothed whales, have teeth that are peg like, no matter what place in the mouth they are from. Squalodonts have more landmammal-like teeth, in that their teeth look different depending on their placement in their mouth. Their cheek teeth are triangular and serrated for cutting, and their front teeth are more canine like, designed for grasping. Heterodont squalodont teeth are vestiges left over from their Paleocene land-dwelling ancestors. With these teeth, Squalodon could have eaten a wide variety of prey, from fish to other marine mammals. An illustration of this complex dentition can be seen in Figure 2.

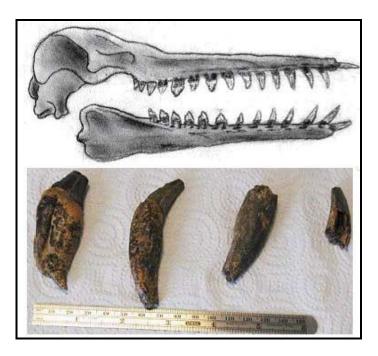


Figure 2: Above shows my sketch of a Squalodon skull. Notice the widely spaced teeth, and the varied tooth shapes depending on the tooth position in the jaw. Actual teeth from Paul's 2002 find are also shown. Sadly, my recent find had no associated teeth.

Another archaic feature the squalodonts possess is their necks. The necks are more compressed than in archaeocetes; however they were probably more mobile than the other "modern looking" toothed whales at the time. Finally, paleontologists believe the dorsal fins were larger than in archaeocetes, but still somewhat reduced, (see Figure 1).

Despite these ancient features, shark-toothed whales also had a mix of modern characteristics. For example, their crania were well compressed, as their rostrums were telescoped outward, giving the appearance of modern toothed whales. Also, Squalodon skulls show evidence that they were capable of echolocation. An illustration of skull comparisons can be seen in Figure 3.

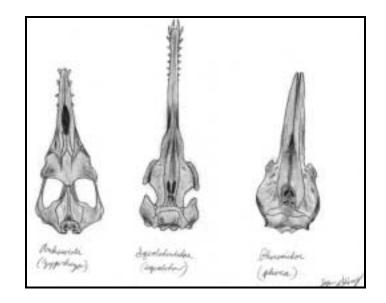


Figure 3: This illustration shows a comparison of three skulls, Zygorhiza (an archaeocete), Squalodon, and Phoca (a modern porpoise). Notice how Squalodon has its nasal passages upward toward the cranium, instead of on the rostrum as in Zygorhiza (the nasal passages are shaded in black). This is remarkably similar to the nasal passage placement on modern dolphins, thus showing modern characteristics. Also notice how asymmetric modern dolphin skulls are (the asymmetry aids in echolocation). Squalodon have slightly asymmetric skulls. In reality, the Eocene Zygorhiza is much larger than the Squalodon and dolphin skulls.

These strange looking shark-toothed whales could be found throughout the world in warm waters during the Oligocene and Miocene. However, they became extinct in the middle of the Miocene and left no descendants. Now, occasionally one can find an isolated tooth or bone from one of these long-dead beasts while walking along the shores below Calvert Cliffs.

### **References:**

- **Carroll, R.** (1988). *Vertebrate Paleontology and Evolution*. NY: W.H. Freeman & Company.
- Mchedlidze G.A.; Translated by Chakravarthy, R. (1984). General Features of the Paleobiological Evolution of Cetacea. New Delhi: Oxonian Press. Translated for Smithsonian Institution Libraries.

# **CMMFC Donates Fossil Display**

In the later half of 2003, the CMMFC received an email query asking if the club would be willing to sell some of it's fossil finds to Mr. Clayton Carkin, a Sixth Grade Science Teacher in Freeport, ME. I explained to Mr. Carkin that the club doesn't sell fossils and that if he was interested in just buying teeth for his personal use that he could surely do an e-Bay search and find several places to purchase some specimens. However, if he was interested in some for the school's permanent use, then we could help him out. Clay let me know that his interest was strictly rooted in obtaining some specimens for his classroom for a permanent display and possible in-class exercises.

Well, since my wife Hillary and I make a visit up to Maine to visit a friend at least once a year I told him that I could do one better than what he was looking for – I'd bring them up myself and try and get some finds from places other than the Chesapeake Bay area for the class. This way the students would have a more diversified collection to admire and ponder. Clay then applied the teacher arm-bar and persuaded me to do a fossil presentation and bring some material for the students to find their own fossils in.

Now I had to part with some of my finds and persuade some others to do so too. Thanks to a donor who wishes to remain anonymous and ditchweezil from Blackriverfossils.org I was able to put together two ten by twelve inch cases of fossils. One case contains the finds of these two donors: from the Lee Creek mine in Aurora, North Carolina and the Chandler Bridge formation in Summerville, South Carolina respectively. The other case contains my donated fossil finds from the Monmouth formation in Monmouth County, New Jersey and of course some from the Calvert Formation in Maryland. So, in February, after several months and a few delays, Hillary and I were able to make the snowy trek north to present the two cases to Clay and his students.



Figure 1. CMMFC member Paul Murdoch poses with Freeport Middle School Teacher Clayton Carkin and the two fossil display cases donated by the Friends and Members of the CMMFC.

We also brought along two five-gallon buckets: one from the roadside spoil piles from outside Aurora and the another from the sandy beaches from along the Calvert Cliffs. With this material we held two short half-hour education talks with a total of over 50 students. The children asked excellent questions, were well behaved, and were quite curious and excited with their finds. Each student was provided a two-cup container of material to sift for fossils while using a section of a quarter-inch screen. Every student found at least one shark's tooth and all had a great time. The classroom was a flurry of activity and several teachers joined in to find some fossil treasures of their own.

Clay even called the local papers and two reporters showed up for the fun. A small article made the local Freeport paper on Thursday, February 26, 2004. Special **THANKS!** to the two donors and to the club members who expressed their willingness to support any subsequent requests.



Figure 2. Several students take their turn washing the fossil rich sediments to look for sharks teeth and other fossils. For all of the students there that day it was their first fossil experience and they all seemed to enjoy it. Maybe there's a future paleontologist in the group!

# A Brief History of the Calvert Marine Museum Fossil Club

**Editors Note:** I am grateful to **Paul Murdoch** for this contribution. This is one of our first attempts at documenting our history, so needless to say, it is not complete. If you feel that important individuals or events have been left out, please send your comments and/or additions to the Club's email address at: **CMMfossilclub@hotmail.com** 

For years amateur fossil collectors and the staff of the Calvert Marine Museum had been fossil collecting together or leading field trips for schools and other organizations. But it was not until 1981 that Norm Riker, a local collector, suggested that a fossil club be formed.

An organizational meeting was held on April 16, 1981, establishing the club. Initially all one needed to do to join the club was to stop by the Calvert Marine Museum and request to become a member of the fossil club. After a few years had past and a need for a newsletter was realized were club dues instituted. Annual dues of \$10 per family, \$3 for students, were initiated to cover expenses such as postage, printing, etc. The newsletter was named *The ECPHORA*, and published on a quarterly basis to keep members informed about club doings, scheduled events and happenings of interest in the fossil world.

The club remained loosely organized for years with no set officers or elected positions. An informal Board of Directors comprised of David Bohaska, Ralph Eshelman, Norm Riker and Calvin Taylor though would meet at Sandy Robert's and plan for the club's upcoming events.

Monthly meetings were held at the museum. Lecturers from the Smithsonian, U.S. Geological Survey, University of Arizona, Howard University, University of Maryland and St. Mary's College made presentations. Special events included a threesession Osteology class taught by Ralph Eshelman and an unusual class led by Paula Bohaska, which involved the cleaning and reconstruction of a modern fish skull. Popular social events were the meetings at Connie and Larry Smith's Matoaka Cottages and at Pete Ferguson's Calvert Beach home. Soon membership in the club became contingent on one first being a member of the Calvert Marine Museum.

Field trips are vital to the success of any fossil club. The Miocene fossils of Calvert Cliffs were the primary interest of the club, with trips along the entire 26 mile length of the cliffs. Similar aged deposits on the Potomac and St. Mary's Rivers were also explored. In the interest of a well-rounded knowledge of Paleontology, areas with fossils of other geological ages were visited, including Pennsylvania (Swatara Gap and St. Clair), New Jersey (Big Brook), Delaware (C&D Canal), Virginia (Westmoreland State Park) and North Carolina (Lee Creek). Fossil deposits of Ordovician, Pennsylvanian, Cretaceous, Paleocene, Eocene, Miocene, and Pliocene ages were examined.

Winter activities included visits to the Smithsonian Naturalist Center and Paleontology laboratories. Trips were made to Baltimore to visit Malick's Fossils and the National Aquarium, and to Philadelphia to participate in the Delaware Valley Paleontology Society Fossil Fair.

Participation in public service events was an important aspect of the club. Fossil fairs were held in 1982 and 1983; lectures, films and field trips were

presented at no cost to interested museum visitors. The club set up a fossil preparation and identification table, with free fossil give-aways, each year at both Patuxent River Appreciation Days (PRAD) and SharkFest and sent demonstrational exhibits to fossil fairs and mineral shows. The club now has a membership roll of over 80, mostly from the states who's geography makes up the Chesapeake Bay and it's watershed, and counts in it's membership people from a great variety of backgrounds and degrees of interest in the earth sciences. Meetings are held at the Calvert Marine Museum and usually a guest speaker will follow the meeting with a free public lecture in the Museum's Auditorium.

Two of the most time consuming positions in the club are that of Club President and Editor of the newsletter. Here we would like to publicly acknowledge our appreciation for the people that filled these vital positions for the club. Some of these people served for several terms and/or over different time periods. The following is the list for past Club Presidents: Mike Elwood, Steve Brady, Al "Skip" Snelson and Sean Kery. The past Editors are: Sandy Roberts, Donna Richardson, Bill Taylor, Al & Cheryl Snelson, Mike Elwood and Hillary Murdoch.

### CALVERT MARINE MUSEUM FOSSIL CLUB MINUTES

# From the January 10, 2004 Meeting

The winter meeting of the CMMF Club was held Saturday, January 10, 2004, in the Exhibition Building.

President, Glenda Dennis, called the meeting to order at 12:15 p.m.

Stephen Godfrey told about the latest whale skull. It came from St. Mary's County. Several workers and volunteers worked very hard to dig it out and jacket it. It was so big and heavy that a Sea King helicopter and its Search and Rescue Team from Naval Air Station Patuxent River picked it up off the beach and flew it to NESEA, St. Inigoes. It was put on a truck, weighed, and brought to the museum. It weighted 1,000 pounds. There will be a Press Conference about it at 2:00 p.m. on January 29. It is a baleen whale.

Stephen had a modern Bull Shark on display. It was caught in 1994 off Florida and cost \$2500.00 to mount.

Treasurer – The treasurer was not present to give a report.

Membership – Pam Platt gave the Membership Report. There are three new members since the last meeting. Pam asked for those present to please pay their dues, if they have not already done so, to save time and postage.

Field Trips – Bob Ertman gave the Field Trip Report. He hopes to get our club into Langley Bluff this spring and also to West Virginia for Trilobites. Also this year we hope to get to Jones Wharf – Drum Cliff area of the Patuxent.

Stephen displayed his drawings of shark teeth. They will be reduced about 10x and put on the rulers.

Paul Murdoch said that hopefully this spring we could get into a new area at Lee Creek. Also, the parking area at Willows is still mostly washed away – not yet repaired from Isabel damage. He reminded all – if possible get your *Ecphora* by email, and we need an EDITOR.

Paul reminded us that the Aurora Fossil Festival is Memorial Day. Hopefully several club members can go.

Paul reported that he has confirmed Sunday, June 27, for an "Identifying Day" at Plum Point, from 10:00 a.m. to 4:00 p.m.

Paul had two display cases of fossils he plans to give to a school in Maine.

Pat Fink asked about the rulers, and Grenda answered: we plan to get 2,500 for \$795.00.

Grenda reminded us, we need a Nominating Committee. She also asked for all who have email, please give your email address to the club, so the club can send out news and not wait on holding a meeting or delivery of *Ecphora*.

The next meeting will be April 24<sup>th</sup> in the Exhibition Building.

The meeting was adjourned

Most Club Members then went to the lecture in the auditorium about dinosaurs in Madagascar.

The meeting was adjourned at approximately 2:00 pm.

Minutes submitted by **Flo Strean**.

# Upcoming CMM Club Field Trips and Meetings

Saturday, April 24<sup>th</sup>, 2004. Club meeting and public lecture. Fossil club meeting to begin at 12:30pm and will be held in the 3<sup>rd</sup> floor lounge in the Exhibits Building. At 2:30pm in the Museum's auditorium Mr. Tom Lipka will lecture on the amazing fossils he has found and published on from the Early Cretaceous Arundel Clay fauna of Maryland.

Saturday, May 1, 2004. Trip to Red Hill, PA, hosted by the Maryland Geological Society. Trip open to members of MGS, DMS, AFF, CCM, and NYPS. There will be no scheduled Sunday trip. No limit to number of attendees. MGS members need to sign up either at club meetings or by phoning or emailing David Andersen at any time (301-869-2662 davander@erols.com). Site information will be emailed to members who sign up the week before. Site contains Devonian marine and terrestrial fossils (fish, amphibians, and plants). Collection is by hammer and chisel almost exclusively.

Sunday, May 2, 2004. Trilobites at Capon Bridge and Lost River, West Virginia. In a change from prior trips, we will meet at the Capon Bridge roadside quarry. Sign up by e-mail to robert.ertman@usda.gov for detailed written directions or call Bob at 410-533-4203. We hope to be joined by friends from the MSG & other clubs.

Saturday, May 29<sup>th</sup>, 2004. Aurora Fossil Festival is Coming! The annual Aurora Fossil Festival hosted by the Aurora Fossil Museum (AFM) will be held this year on Saturday, May 29<sup>th</sup>, 2004. The event takes over the town for a day and usually has numerous fossil dealers and exhibits from numerous museums, fossil clubs and personal collectors. The event closes with the Fossil Auction, of which all proceeds go to the AFM. Club members **Mike**  **McCloskey** and **Paul Murdoch** will be on hand conducting presentations in the AFM's auditorium.

That said, it would be nice if others could make it to the event so that the club could have an official affiliation with the event. If you are willing to make the trip and display some of your finds please send an email to the <u>CMMfossilclub@hotmail.com</u> or call Paul Murdoch at 610-326-8825 by May 15<sup>th</sup>, 2004.

Sunday June 27<sup>th</sup>, 2004. IDENTIFIND DAY at the Neeld Estates Hilltop House. Come out and enjoy a day of Fossils & Fun!!! Marty Meyer and the Calvert Marine Museum Fossil Club have arranged to have experts on hand from the CMM, Smithsonian, University of Maryland and the State of Maryland Archeology Department to assist you in identifying your beach finds. The Club will also have display tables showing what local specimens have been found by its members. In addition, fossils from the Calvert Marine Museum's permanent collection not usually on display will be here as well. So stop by, bring your finds, and get them identified.

Join your neighbors and friends at what is sure to be an enjoyable day at the beach!!!

Experts for the Event include: **David J. Bohaska**; Fossil marine mammal expert at the Smithsonian, **Wayne Clark**; Archeologist for the State of Maryland, **Bretton Kent**; Professor at the University of Maryland & **Jasper Burns**; and Author of *Fossil Collecting in the Mid Atlantic States.* 



Above figure is a map of Needle Estates. The Hilltop House is in the bottom left corner and will be the site of the June 27, 2004 meeting and event. Used with permission.

Saturday, July 10, 2004. Trip to Deer Lake, PA, hosted by the Maryland Geological Society. Trip open to members of MGS, DMS, AFF and CCM. No limit to number of attendees. MGS members need to sign up either at club meetings or by phoning or emailing David Andersen at any time (301-869-2662 <u>davander@erols.com</u>). Site information will be emailed to members who sign up the week before. Site contains Devonian age brachiopods, cephalopods, trilobites, coral, sponges, and bryozoans, some in excellent condition. Collection is by surface examination with some splitting of rock.

Saturday, July 10<sup>th</sup>, 2004. SharkFest. Come celebrate our annual shark festival here at the Calvert Marine Museum. There are activities for the whole family. Demonstrations and displays on sharks and their kin. If you would like to help or display some of your shark-related fossils, please contact Stephen Godfrey at 410.326-2042 ext. 28. Your help during any part of the day is more than welcome.

# 2004 Field Trips

At last! The 2004 field trip schedule is ready!

A few notes: We will probably be adding more trips in the fall, and will send out updates when they're available. Please note especially the changes in payment policy.

Thank you for your support of VMNH. We look forward to seeing you on trips this year,

### Alton C. Dooley, Jr., Ph.D.

Assistant Curator of Paleontology Virginia Museum of Natural History 1001 Douglas Avenue Martinsville, VA 24112 276-666-8644 <u>butchd@vmnh.net</u>

Join VMNH staff on our paleontological field trips and learn about the fascinating geological history of the Middle Atlantic States. These trips were designed by Dr. Lauck Ward, Curator of Invertebrate paleontology at VMNH, and cover a wide variety of ages and environments representative of the last 550 million years. More detailed information is available by request at butchd@vmnh.net, or at 276-666-8644.

All trips are filled on a first-come, firstserved basis. Some trips have limits on the number of participants. Fees associated with these trips are considered to be donations to the VMNH Foundation. All funds are used to support research at VMNH. Requested donations for each trip do not include accommodations, meals, transportation, or park entry fees.

To make a reservation, send a message to <u>butchd@vmnh.net</u> with the subject "Field Trip". Tell which trip you are interested in, and how many adults and children will be attending, or call 276-666-8644. To make a donation, mail a check payable to VMNH Foundation to:

Virginia Museum of Natural History Attn: Research Field Trips 1001 Douglas Ave. Martinsville, VA 24112

# Virginia Museum of Natural History

DUE TO A NUMBER OF NO-SHOWS ON PAST TRIPS, WE ARE MODIFYING OUR PAYMENT POLICY. TRIPS WILL BE CANCELLED UNLESS 10 PEOPLE HAVE PRE-PAID AT LEAST ONE WEEK PRIOR TO THE TRIP, AND AFTER THAT POINT, NO REFUNDS WILL BE OFFERED.

Schedules and itineraries are tentative. Trips may be cancelled due to inclement weather or lack of enrollment. Rare specimens may be retained by curators for the VMNH collection.

April 16-18 Morehead, KY

May 8 Martin Marietta-Carmel Church Quarry/ Lieutenant Run

May 22 Chuckatuck Quarry/Chippokes State Park

June 19 Matoaka Cottages

July 17 Westmoreland State Park

August 21 Pamunkey River boat trip

# Request for Bowie Site Faunal List from the Delaware Valley Paleontological Society

Larry Decina, the Past President and current assistant editor of the Delaware Valley Paleontological Society (DVPS), has asked the club to solicit its members to inquire if anyone has any rare, or suspected rare, finds from the Late Cretaceous, Severn Formation, stream site near the intersections of Routes 301 & 50 in Bowie, MD. If you think that you have a rare fossil from the site; email please send an to CMMfossilclub@hotmail.com with your name, the fossil name and, if possible, a photo of the find.

The DVPS published an article, which Larry co-authored, on the site in its most recent (May, 1999) edition of *The Mosasaur – The Journal of the Delaware Valley Paleontological Society*. He is hoping that after these years of collecting that some additions can now be made to the fauna list from the site. The goal is that a few new items will become known and an updated list can be published. Proper credit will be given to anyone whose contribution adds to the expansion of the site's fauna list. If you

collect at this site, please consider contributing to this effort.

### Editor's Column

The Department of Paleontology at the Calvert Marine Museum is still in need of an **orthopedic cast cutter saw**. This saw would be used in our fossil preparation lab to cut through multiple-layered field jackets made of burlap or other fabric-soaked plaster-of-Paris bandages that we wrap around large whale and dolphin fossils in order to remove them safely from Calvert Cliffs. If someone would like to donate a new or used cast cutter saw, the museum could provide a tax receipt for a donation in kind. If you have any questions or comments, please don't hesitate to contact Dr. Stephen Godfrey, Curator of Paleontology @ (410) 326-2042 ext. 28. Email: Godfresj@co.cal.md.us

CMMFC P.O. Box 97 Solomons, MD 20688

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Fall Trip Leader*	Robert Ertman	Robert.ERTMAN@usda.gov
Spring Trip Leader*	Open	N/A

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