



The Rostrum

The Newsletter of the Maryland Geological Society
Baltimore, Maryland
Established 1991

Volume 15, Number 5

September 2006

President's Message

On Saturday, November 11, 2006, the Calvert Marine Museum will host a day long symposium on the geology and paleontology of the Calvert Cliffs. The conference is sponsored by the Clarissa and Lincoln Dryden Endowment for Paleontology and the Calvert Marine Museum Fossil Club. The sessions will include poster and oral presentations which are free and open to the public.

I strongly encourage the members of the Maryland Geological Society to avail themselves of this wonderful opportunity and attend. The symposium will be held at the Calvert Marine Museum (14150 Solomons Island Road, Solomons, Maryland 20688). If you have questions regarding the symposium, please contact the Calvert Marine Museum Fossil Club at CMMFossilclub@hotmail.com.

Your Fearless Leader,

Brady E. Hamilton

Dates to Remember

Sunday, September 17th - next MGS Meeting

Meeting Time & Location: 12 Noon to 4 PM

South Bowie Community Center, 1717 Pittsfield Lane, Bowie, MD 20716

Mineral of the Meeting: Pyrite. Bring a few choice specimens to the meeting.

**The 4th Annual MGS Auction will be held
at the Sept. 17th meeting.
(details inside)**

Please submit material for the next issue of The Rostrum by October 10th



*"Science is a wonderful thing if one does not have to
earn one's living at it".....Albert Einstein*



The Rostrum V15 (5) Index

President's Message.....	1
Dates to Remember.....	1
MGS Information.....	2
Meeting Dates & Programs.....	2
Donations & Thanks.....	3
Mineral of the Meeting: Pyrite	3
MGS Auction Info.....	4
MGS Field Trips.....	4
C&D Canal Report.....	5
Findings by MGS Members.....	5
Iron Meteorites.....	6
May 21 st Meeting Minutes.....	7
MGS Picnic Recap.....	7
Odds & Ends.....	8
July 16 th Meeting Minutes.....	9
July Program Report.....	10
Club Items for Sale.....	10
MD Science Center.....	10
Upcoming Events.....	11
Auction Forms.....	12,13

MGS Officers:

President	Brady Hamilton	301-562-8956
Vice President	Eric Seifter	410-203-1064
Secretary	Gary & Cindy Lohman	301-862-1957
Treasurer	Dave Andersen	301-869-2662
Assistant Treasurer	Eric Beach	301-602-8287
Newsletter Editor	Rick Smith	410-247-3961
Contributing Editor	Phil Schmitz	
Website Editor	Daryl Serafin	301-464-1659
Website Assistant	Mel Hurd	301-630-7054
Membership Chairman	Dick Grier, Sr	410-285-5554
Program Chairman	Eric Seifter	410-203-1064
Liaison Officer	Mel Hurd	301-630-7054
Ways & Means	Dick Grier, Sr	410-285-5554
MGS Sales	Chris Hurd	410-798-4885
Field Trip Chairman	Mark Bennett	443-370-1325
AFMS/EFMLS Rep.	Gary Lohman	301-862-1957

Board of Directors:

Mark Bennett	443-370-1325	Mike Folmer	410-850-0193
Bob Farrar	301-464-1137	Gary White	410-551-7826
Gary Grimsley	703-642-2824		

Maryland Geological Society

Founded in 1991, MGS is comprised of both amateur and professional mineral and fossil collectors. MGS emphasizes collecting, identification, study and display aspects of the geological sciences. MGS is a nonprofit organization affiliated with the American Federation of Mineralogical Societies (AFMS) and the Eastern Federation of Mineralogical and Lapidary Societies (EFMLS).

Dues

Dues are \$15.00 per individual adult member. Applications for membership may be obtained from the MGS website or by contacting Dick Grier, Sr., Membership Chairman, 8052 Kavanagh Road, Baltimore, MD 21222, (410) 285-5554. Dues are payable by January 1st of each year.

Meetings

Meetings are held bimonthly, beginning in January at the South Bowie Community Center, located at 1717 Pittsfield Lane, Bowie, MD. The doors open at 12 noon and the meetings are completed by 4:00 PM. Club meetings will be held as scheduled so long as the South Bowie Community Center is open. Call 301-249-1622 after 11:00 AM to find out if the Center is open.

Meeting Dates & Programs for 2006

January 15: General meeting - no program

March 19: Four Stories by Eric Seifter

May 21: Joint MGS & AFF Meeting

July 16: Radioactive Minerals

Sept 17: Annual Auction

Nov 19: Elections & Pizza Party

Correspondence

Direct mail to Gary & Cindy Lohman, Secretary, 21995 Barkentine Court, Great Mills, MD 20634. Phone: (301) 862-1957.

The Rostrum

Published bimonthly beginning in January. Submit material for publication electronically to john.richard.smith@us.army.mil or by mail to Rick Smith, 1253 Brewster St., Baltimore, MD 21227.

Website

(<http://ecphora.net/mgs/>)
Material for the website should be sent to Daryl Serafin at dkjjserafin@verizon.net.

Donations & Thanks

submitted by Dick Grier, Sr., Ways & Means Chairman

MGS would like to thank the following members for their donations to the silent auctions and raffles:

Mark Bennett for an extensive list of items: a 4.5 inch *Carcharodon megalodon* from Green Mill Run, NC; a 12" bakelite gold pan (non-rustable); a new pair of rubber boots, size 8 with steel shanks; a large bag of petrified wood from Arizona; a baleen whale jawbone (Meherrin River, Murfreesboro, NC); a *Merycoiodon* jaw with tooth (Oligocene); a small xl-lined fossil shell key ring; two small amethyst crystal key rings; four small *Metasequoia dakotensis* (Dawn Redwood Cone) fossils from Dawson City, MT; large amber from Borneo; *Thalassina anomala*, (lobster) from Australia; and a *Megachasma pelagios* shark tooth from the Pliocene of Peru.

Mark also donated the following four books: 1. *Sharks (Myth and Reality)* by Gitano Cafeiro and Naddalena Jahoda 2. *Sharks* by John D. Stevens & Tony Pyzaskowski 3. *Great White Shark* by Richard Ellis & John E. McCosker 4. *Shark (A Photographer's Story)* by Jeremy Stafford-Deitsch.

Note: Several of these items will appear in the September 17 regular auction.

Bob Asreen Jr. donated two books, a copy of *The Mosasaur* by DVPS, and *Maya Civilization* by Patrick Culbert.

Flo Streaan donated three mineral/fossil boxes.

Doug Donald donated two Cretaceous ammonites from Madagascar; one side polished.

Mineral of the Meeting: Pyrite

submitted by Bob Farrar

For the September meeting, the mineral theme will be pyrite. Though I have talked about pyrite once before, my accompanying article inadvertently went off into the ether, so I am submitting it again. Anyone who wishes to bring pyrite to show off at the meeting is welcome to do so; just don't let your prized specimen be auctioned off.

Pyrite is an iron sulfide, FeS_2 , and is a characteristic golden yellow color, hence the common name "fool's gold". Pyrite commonly forms crystals, often large and quite beautiful, which helps make this mineral so popular with collectors. It crystalizes in the cubic system, and cubes and octahedrons are common forms of its crystals. It also occurs as a form so characteristic of pyrite that the name of the mineral was lent to the crystal form: the pyritohedron, which is a 10-sided polyhedron. Less common is the diploid crystal, which is 24-sided. The crystal form of pyrite distinguishes it from marcasite, which has a similar chemical composition, but orthorhombic crystals. Marcasite is also less stable than pyrite; it oxidizes on exposure to air, releasing sulfur, which forms an acid that attacks paper boxes and labels. Pyrite, however, can also oxidize and disintegrate, a process sometimes known as "pyrite disease". Other physical properties of pyrite include a hardness of 6 to 6.5, no cleavage, and brittleness. Its brittleness easily distinguishes pyrite from gold. If you are ever in doubt as to whether something is gold or pyrite, hit it; if it shatters, it is (or was) pyrite; if it flattens out, it's gold. Do not try this with your good specimens! Gold is also much heavier and softer.

Pyrite is of some economic importance in addition to its value to collectors. It is mined as a source of sulfur, for the production of sulfuric acid. Pyrite often contains traces of elements besides iron and sulfur, including gold. Some pyrites contain enough gold to be mined as gold ore, so "fool's gold" can actually be something of a misnomer.

Pyrite occurs in a great variety of geological environments. It is very common in ore veins, igneous porphyry deposits, and sedimentary rocks. It commonly co-occurs with other sulfides, such as chalcopyrite, sphalerite, and galena. Many localities produce fine specimens of pyrite. Peru is the source of great numbers of specimens, often with large crystals. Logorono, Spain is famous for perfect cubes of pyrite that are found in a chalky matrix. Flattened, radiating masses of pyrite, known as "pyrite suns", are found between layers of shale at Sparta, Illinois.

Diploid crystals are found at Huntsville, OH. At Glendon, North Carolina, pyrite cubes occur in a matrix of pyrophyllite. Numerous localities in Pennsylvania have yielded nice pyrite specimens, including French Creek, Blue Ball, and Cornwall. And finally, pyrite has been found in Maryland, at such localities as Havre de Grace, Mineral Hill, and the Greenspring Quarry in Baltimore.

4th Annual MGS Auction at the September 17th Meeting

Submitted by Dick Grier, Sr.

In lieu of a speaker at the September 17th meeting, MGS will hold its 4th Annual Regular Auction. It is requested that members keep the number of specimens that they submit for auction to ten (10) or less. The specimens should be listed in duplicate on the forms in this issue of *The Rostrum*. Each specimen should be numbered with an identifying tag - identification with localities is required.

You may indicate a minimum reserve bid amount - it will not be sold for less. The experience with club auctions is that specimens too highly priced are passed over, but please no junk. Items can be fossils, minerals, artifacts, or meteorites with a name and locality. A 10% fee will be charged for each item sold, which will go to the MGS Treasury in the furtherance of the club's programs and projects. The MGS will be helped if the regular dealers would donate something to the auction. Last years auction was a huge success and everyone had a lot of fun!

What you need to know to prepare for the MGS auction at the September Meeting:

- 1 - Members can bring up to ten specimens of mineral, fossils or artifacts.
- 2 - Proper identification and localities on numbered tags.
- 3 - Two forms listing the specimens, one for the auctioneer and 1 for the cashier, are available on pages 12 & 13 of this issue of *The Rostrum*. Minimum bids can be placed on the item and will not be undersold.
- 4 - MGS raises money through auctions and door prizes that finance all projects that we promote.
- 5 - MGS will assess 10% on each specimen sold.
- 6 - MGS will also have specimens to be auctioned from our members' donated material.

Our regular auctions are a lot of fun and raise money for the MGS treasury. Bring your specimens and cash or checks and join the fun!

MGS Field Trips

submitted by Mark Bennett, Field Trip Chairman

The Maryland Geological Society is an advocate of responsible collecting. The society has permission to collect in all of the sites listed below that require such permission. Some sites allow only organizations to attend, while at others individuals are welcome to go on their own. Most trips are weather dependent and some require at least an average level of physical fitness. Check each individual listing.

Please check the MGS web site at <http://ecphora.net/mgs/> to get the latest field trip updates

The Grier's have placed a request to Ormond at the PCS mine (Lee Creek) for 25 seats for the anticipated Fall season. It was hoped that we would get a reply regarding the number of seats and a date within time to pass that information along to MGS members in this issue of *The Rostrum*. Unfortunately, we have received no information at this time. Anyone that is interested in this trip should check the MGS website frequently over the next few weeks for important updates regarding the Fall season at Lee Creek.

Mark Bennett is donating as an auction item for the September auction - a boat trip for one or two collectors to anywhere in Maryland to collect. The minimum bid is \$50 and all money raised will go to the MGS.

Field Trip Report - C & D Canal (July 2006)

submitted by Gerald Elgert

Contrary to popular opinion, I am finding that the C & D Canal is still a productive collecting area. Back in July some collecting was performed in that area just east of the Rt. 9 bridge and an adjacent spoils area just across the canal. Experiencing such good luck I returned two days later for some more equally productive collecting. Granted, some of the former producing sites are no longer easily accessible. The Bigg's farm site is now posted with some of the site under a cornfield. The spoils site between the marina and Red Lion Road is also presently under a cornfield. At the Rt. 9 site just northeast of the canal a small hill has been created by bulldozing. Most of this spoils area is now covered by vegetation so come prepared to dig and screen. This is the area where I found the majority of my gastropod steinkerns. Just across the canal, on the southeastern side of the canal before crossing the Rt. 9 bridge is another extensive spoils area. Recent storms have created extensive gullies exposing long buried fossil bearing strata. The general rule is that if just a single fossil

is lying on the surface, there are sure to be more beneath. My best finds there are a possible sawfish rostral tooth and an *Ostrea* pelecypod with both valves still articulated. Fossilized cypress wood is also reported from this area.



Finds by MGS Members

submitted by Phil Schmitz, Contributing Editor

This section is open to all MGS members. If you would like the fossils that you have found listed in *The Rostrum*, please e-mail Paschmitz@hotmail.com or send a postcard briefly identifying the specimen(s) to: **Phil Schmitz**, 2708 Gibbons Avenue, Baltimore, MD 21214-2128.

The following are finds by MGS members that were on display at the July 16, 2006 meeting:

Artie Speth found several nice Devonian trilobites in matrix, and a lot of loose horn corals and brachiopods during a May 06 trip to 18-Mile Creek, NY.

Dave Siegert brought a 4 $\frac{3}{4}$ " "heart-shaped" *C. megalodon* (he has had it for over 10 years) and a 5" *C. Megalodon*.

Glenn Roche found at Brownies Beach a cow shark tooth and a *Squatina* tooth on the morning of July 16, 2006, the day of our last meeting.

Jim Savia found three *C. megalodon* teeth; 1 $\frac{7}{8}$ ", 3", and 3 $\frac{5}{8}$ " (all in gem condition) at Lee Creek, NC.

Eric Seifter brought some fern fossils from Spain (*Palaeoweichselia defrancei* and *Alethopteris zeilleri*) and a sling stone Shot that was found in Jordan in 1950 (Bronze Age 1200 - 1400 BC). Eric also brought a collection of *Ecphora gardnerae gardnerae* (the Maryland state fossil) from Chancellor Point, St. Mary's County, MD

Mel Hurd found a fish rostral from *Cylindracanthus rectus* and a colony of fossilized shipworms at Popes Creek, MD in early July 06.

Flo J. Strean found one *Chesapecten* pair, two *Panope Americana* shells, and one Bryozoa cluster during the summer of 2006 at Western Shores, MD.

Part Three: Famous Iron Meteorites

Submitted by Phil Schmitz

The world's largest known meteorite (named Hoba) weighs around 55,000 kilograms and is near Grootfontein, Namibia, Africa. It was discovered in 1920 on the Hoba farm. This very ancient meteorite measures 9 feet by 9 feet by 3.5 feet, and it rests in a depression of about five feet. The cavity made by the impact was much larger and deeper. Surrounding the meteorite, is a layer of weathered rusty material that was formed by terrestrial erosion of the outer part of the meteorite. By correcting for the weathering, the total weight of this meteorite was over 73,000 kilograms. The South African government proclaimed it a national monument in order to save it from the smelter. Hoba, the largest known meteorite, is an ataxite, the rarest type of iron meteorite.

Another African meteorite, from Gibeon, Namibia was discovered in 1836, by a British explorer, although natives of the area knew about it before then. Many tons of this meteorite have been recovered and many in the field of meteorites consider it to be the "King" of all meteorites. Almost everyone that has a meteorite collection has a Gibeon. The Gibeon meteorite is classified as a fine octahedrite, it shows an interesting Widmanstätten pattern (when etched) that makes it a favorite among collectors. Unlike some other iron meteorites, Gibeon meteorites are very resistant to rust, due to the tight fitting crystals. One must still take care not to let any iron meteorite rust. Gibeon meteorites are sometimes used to make knives, spheres, watches and jewelry as well as other items.

The most famous meteorite in the United States is the Canyon Diablo meteorite, located in Coconino County, Arizona. This meteor crater is the best preserved meteorite crater in the world and has been known to Native Americans for over nine hundred years. The meteorite fell between 20,000 and 50,000 years ago and over 30 tons have been recovered. The meteorite (100 feet to 150 feet in diameter) left a hole 700 feet deep and 4,000 feet across. It is estimated that over 85% of it vaporized on impact. The crater is privately owned by the Barringer family of Philadelphia, Pennsylvania. No collecting is allowed.

In 1894, a guy named Bob joined the search for the Cape York, Greenland meteorites. Hunters from the United States and Europe had been looking for the
The Rostrum 15 (5) September 2006

elusive meteorite for over 75 years, but the Eskimos would not give up the location. Bob impressed the native Eskimos by arriving by dog team, he then talked two Eskimos into taking him to the site by trading with them. One of the guides left Bob during the trip, so the remaining guide led Bob to the three ton meteorite and the 1,100 pound meteorite. The third and largest iron was about four miles north. Bob returned to look for the largest meteorite in 1895. When he found it, he realized he didn't have a big enough ship to transport it, he estimated the weight of the 12 foot long, 7 feet high and 5 feet thick meteorite at 100 tons (fortunately he was wrong - it weighed around 34 tons). He returned in 1897 with a larger ship, the "Hope", and with great difficulty, he managed to get the meteorite to New York in October of 1897. It remained on the pier for seven years. Finally, the American Museum of Natural History in New York bought it for \$40,000. The meteorite (named "Ahnighito" by Bob) remains there today, and is the largest meteorite in "captivity". Bob used the \$40,000 to finance his historic trek to the North Pole, his complete name is **Robert E. Peary**. And as Paul Harvey would say, "and now you know the rest of the story". Several other large masses have since been discovered in Greenland. Also, Greenland issued a stamp depicting an etched slice of the Cape York meteorite in 1978 for the centenary of the Scientific Research Commission.

The final iron meteorite to be discussed in this article is the Sikhote-Alin meteorite. This meteorite was seen to fall on February 12, 1947, at 10:38 AM (that's right, in broad daylight!), near the town of Novopokrovka, close to the China border. This was a monster fall, over 25 tons have been recovered from over 100 impact craters. The total weight of the entire meteoroid, may have been 300 tons. Sikhote-Alin meteorites are what most people visualize when they think of a meteorite. On the morning of that day, Medvedev, an artist, was beginning to sketch the Sikhote-Alin mountains when he saw a flaming fireball as large as the Sun appear in the cloudless sky. The meteor was so bright, it cast shadows! Medvedev quickly sketched the event while it was still fresh in his mind. Russia issued a postage stamp to commemorate the 10th Anniversary of the event in 1957. The impact was felt 100 miles away, breaking windows along its path. Fortunately, no one was killed by this incredible fall of cosmic iron. The geologists wasted no time in examining the impact craters, (the

largest crater was over 85 feet across and about 20 feet deep). Never before in recorded human history had the opportunity arisen to study such a pristine crater. Russia issued a postage stamp to commemorate the 10th Anniversary of the event in 1957. Medvedev's painting is depicted on the stamp.

All other large meteoritic craters known were from prehistoric times, and the geologic forces of the Earth have taken their toll on them.

Next article - The Stone Meteorites

Minutes of the May 21st Meeting **Submitted by Gary Lohman, Secretary**

MGS president Brady Hamilton called the meeting to order at 1303. This is the annual joint American Fossil Federation (AFF) and MGS meeting. AFF business was conducted first by AFF president George Powell. Highlights from the AFF meeting are as follows. AFF is hosting a presentation by Ken Rose on early Pleistocene mammals on November 12. MGS members are welcome to attend this presentation. EFMLS annual convention this year will be held in November in Palm Beach Florida. AFF is planning a trip to Red Hill on June 3. May 27 is the Fossil Festival in Aurora, NC. June 25 is the Calvert Marine Museum's (CMM) Identify Day at Plum Point and history walk on the beach.

The MGS portion of the meeting was called to order at 1330. Brady described his recent travels. In particular, he strongly recommended visiting the Buena Vista Museum at the famous "shark tooth hill" site near Los Angeles, CA. He described this as the "Lee Creek of California" where they similarly run trips for about \$75 for non-members and \$50 for

museum members. Membership costs \$25. He also described the Lucy display and shark fossils at the Cleveland Natural History Museum. He has also been in contact with John Lundman who is an ichthyologist and discoverer of the paleo-piranha and hoping to arrange a presentation on tertiary fish evolution.

Vice president Eric Seifter had nothing new to report. Minutes from the last meeting were read and accepted as is. Treasurer's report shows \$3,073.55 in savings and \$1,646.73 in checking. As of May 20, MGS has a total of 162 members which includes 6 re-ups. Articles for the next issue of the Rostrum are due June 10. There are no field trips currently planned. Under old business, the interest for developing MGS flyers was brought up with Brady Hamilton taking this item for action. Success for the annual picnic scheduled for 17 June at Flag Pond depends on turnout.

The business portion of the meeting was concluded at 1354.

MGS Picnic Recap **Submitted by Phil Schmitz**

Saturday, June 17, 2006

I didn't arrive much before noon, but the picnic at Flag Ponds was in full swing. Quite a few members were on the beach searching for fossils. Others were sitting around, eating, and talking fossils! Mark Bennett had some of his finest shark teeth on display. The temperature was not too bad, and it didn't rain. I finally went down to the beach, I believe around 1:30 or so. I only found eight small teeth, two were nice hemipristis teeth. I saw some of the other finds, mostly small teeth. There was a nice breeze that was good for keeping the temperature down, but bad for fossil hunting. Chris Herd had found a few fossils, as did Wayne and his wife Sharon. Debbie Burdette found fossilized "fish

lips" and a very neat little crab claw, as well as a lot of teeth.

Back at the picnic, Joe Cirincione was once again the cook for the picnic, cooking hamburgers, hot dogs, and corn on the cob. Michele Mitroff had made her world famous brownies and other members brought all kinds of food and desert. Michele also had her kids, Carly, Steven and Matthew with her as well as their dog Mollie the Collie. Two picnic tables were loaded with food, salads, watermelons, pretzels, chips, cookies, brownies, cakes. There were quite a few coolers with sodas as well. Dick Grier, Sr brought pickles, olives, mustard, ketchup, napkins, cups, plates and the ice to name just a "few" items.

Dick also brought the tooth jar. A lot of members were present (besides those already mentioned above); Dick Grier Jr, Brady Hamilton, Daryl Serafin was there with his family, Rick Smith and his wife, Rosalie, Eric Woody, Bob Ferrar, Flo, Kathy and Tom Young, Erma Guldun, Margie and Steve Noel, Sara, Joy and Tom, John Adams, as well as new members Leslie Slaby and Kevin May and guests Danny and Diane. I'm sure this is not a complete list, but you can tell it was an excellent turnout.

The MGS picnic is alive and well, we hope to see you all there next year!

Editor's note: Pictures of this years picnic can be found on the MGS website. Look for the link on the left side of the home page.

Odds & Ends

Compiled by Rick Smith - Editor

A Pictorial Guide To The Orders Of Trilobites:

This is an eighty-eight page spiral bound book on Trilobites with a copyright date of 1999-2005, so it is up to date. The name trilobite comes from the fact that all trilobites have a long central axis (called the axial lobe) with a pleural lobe on each side of the axial lobe. The book mentions that trilobites are made up of nine orders and that there are over 15,000 known species.

The book contains a very nice glossary of trilobite terms, and a geological chart on when they existed. There is also a chart showing the start of trilobites in the Cambrian throughout the Permian when they became extinct. The height of trilobites (over 60 families) was at the end of the Cambrian and the start of the Ordovician. There is detailed information on the major trilobite features including both dorsal and ventral morphology.

There is a lot of detail given on the eyes of trilobites, including diagrams and actual photos. Of course, there were some trilobites that had no eyes. There is a section on trilobite ecology and their ancient environments, as well as what trilobite feeding habits were. There is a systematic listing of trilobite families. The book closes out with a Pictorial Guide to the Orders of Trilobites. There are many drawings of trilobites included in this section. The book contains a bibliography at the back of the book.

The author Samuel M Gon, III, PhD. has a website <http://www.trilobites.info> where one can get more info on trilobites and order this guide. (submitted by **Phil Schmitz**)

Review of Astronomy magazine for August 2006:

This was a much anticipated issue in the meteoritic world. I had heard about it several months before its release. There are at least 11 articles on meteorites and asteroids in this issue. From unlocking the solar system's past to the classification of meteorites, this issue has it. Four of the articles are devoted to the classification of meteorites. Besides the articles, there is a chart that shows where the different types of meteorites come from. There are two articles on major impact sites, Gosses Bluff crater (Australia) some 15 miles across and three deep, is some 142 million years old. Unfortunately no meteorites survived from that long ago. The other article is on Arizona's Meteor Crater, fortunately, many tons of meteorites have been found here. This crater is about $\frac{3}{4}$ of a mile wide and roughly 50,000 years old. It is considered to be the best preserved crater in the world. There is a small diagram, showing the Earth's folded layers as a result of this impact. The article even mentions the many minerals found at meteor crater. There are separate maps of the world showing where some of the world's stone meteorites, iron meteorites, and stony-irons have been found. Many meteorite dealers have advertisements in this issue. Another article discusses how to start a meteorite collection. Robert Haag, the "meteorite man" is also featured in this magazine. Those that have waited for this issue will not be disappointed. (submitted by **Phil Schmitz**)

Minutes of the July 16th Meeting

Submitted by Gary Lohman, Secretary

The July meeting of the MGS was called to order by President Brady Hamilton at 1300. Opening remarks addressed the good turn-out for this year's picnic. Brady indicated that about 40 members attended the picnic and all had a good time. Daryl Serafin's son was the winner of the "tooth jar." Congratulations! Brady is still working on a talk by Dr. John G. Lundberg (scientist at the Academy of Natural Sciences, Philadelphia) on the paleo-piranha for the November meeting or possibly Wayne Clark on Maryland Indian artifacts. Dick Grier Sr. reminded everyone that the September meeting is the club's annual auction and the November meeting is the pizza party, in addition to one of these presentations. Vice President Eric Seifter attempted to stimulate interest while introducing a new "fundraiser" for the club with an unidentified fossil. Anyone interested in guessing contributes \$0.50/guess to the club and the winner provides a new home to the fossil! Minutes from the May meeting and were accepted with two changes, namely the prices for a Shark Tooth Hill collecting visit in California and the name of the prospective November speaker. Dave Andersen presented the treasurer's report. As of 15 July, all bills have been paid. Currently, MGS has \$1,876.48 in checking and \$3,074.83 in savings with no outstanding checks or deposits.

Dick Grier Sr. presented the membership report. MGS currently has a total 168 members. The breakdown is as follows: 125 adults, 43 juniors, 1 honorary, 7 life and 4 new member - since the last meeting. Dick Grier Sr. also pointed out that impending renovations may force us out of the current meeting site earlier than anticipated and it is not yet clear if the old site (North Center) will be available to us for meetings. In fact, renovations at the current center could begin as early as November. At this point, members should plan on meeting at the current site for the November meeting unless posted otherwise in the Rostrum and on the website (<http://www.ecphora.net/mgs/>). Dick and Bob Farrar are working hard to stay on top of the immediate situation as well as finding a permanent home for the club.

Dick also showed the very nice Red Hill posters that Mark Bennett has donated to MGS. These posters will be shared with the MGS membership on a donation basis. Additionally, September is the annual MGS auction. Donations and fundraisers such as the 10% fee from the auction help keep dues from going

The Rostrum 15 (5) September 2006

up while giving MGS the ability to make donations such as the memorial benches and do things itself. Dick Grier Sr. urged participation in the auction and reviewed the basic rules. Essentially, these boil down to filling out a form (available from Dick Grier Sr.) for each item to be auctioned. It is important to try and fill out forms before the event and include on the form the starting price as well as expected information such as identification and site details for fossil and mineral specimens. Everything sold is subject to a 10% fee of the selling price.

Rick Smith requests Rostrum submissions for the next issue by August 10. He also reported that we have two entries currently in the top ten for the AFMS editor's competition. The awards ceremony is scheduled for August 20, 2006. Rick briefly described the submission process, which begins at the EFMLS level. Only the top three EFMLS entries in a category get forwarded to the AFMS for competition. To have two articles at that level currently is very impressive and a tribute to the talent within MGS! Rick pointed out that it has been a great year with lots of good contributions. Brady Hamilton indicated that members can also submit photos of their latest finds to the newsletter.

Mark Bennett has no field trips planned at present and is looking for ideas. Dick Grier Sr. is making contact with Lee Creek to make sure that we get on the list for Fall trips. He will be requesting 25 places, but pointed out that we may have to settle for 20. Dr. Gary Lohman, who is also president of the Southern Maryland Rock and Mineral Club, offered the possibility of a joint trip with MGS if there were interest. SMR&MC focuses more on minerals than fossils and many MGS members expressed interest in such a joint trip to a site such as the Rockville Quarry (Hunting Hill), which is known for its rodingite. More details will be provided as the SMR&MC's Fall field trip schedule solidifies.

Prior to Dr. Lohman's presentation on Radioactivity and Radioactive Minerals, Eric revealed the winner of the "guess the fossil." In actuality there were only a few guesses and they were not specific enough. He offered a "guess-off" to the three participants that for a \$5 donation to MGS they could guess until one of them gets it. In the end, only President Hamilton offered up \$5 and made the correct identification, including the correct site almost immediately! Way to go Brady!

July Program

submitted by Phil Schmitz, Contributing Editor

Dr Gary Lohman spoke on Radioactive Minerals, here are some of the highlights of the talk:

What comes to mind when you hear the word radioactivity - man-made products or a natural occurring phenomenon? Eighty per cent of radiation is natural (human body C14, outer space, rocks, etc). The other twenty per cent is from man made sources (X-rays, CATscans, etc). You don't become radioactive by being near a radioactive source.

Discovery of the idea that atoms existed was by John Dalton (in 1803). He proposed a systematic set of postulates to describe the atom. It wasn't until 1895 that Wilhelm Roentgen discovered X-rays. Antoine Becquerel discovered radioactive decay in 1896. Working in Becquerel's lab Marie and Pierre Curie pursued his discovery and Marie Curie and Antoine Becquerel shared the Noble Prize for Physics in 1903. Ernest Rutherford identified three forms of radioactivity; alpha particles, beta particles and gamma emission. He helped to prove that this is a form of nuclear decay. Albert Einstein showed the equivalence of matter and energy.

Dr. Lohman demonstrated several different Geiger counters. He passed around a UV light (long wave) with some of the minerals to see how they reacted under the UV light. He had quite a few radioactive minerals (all inside bags and clear containers), including; Tobsnite, Uranophane, Monazite, Euxenite and radioactive Carbonatite. He said if you want to collect radioactive minerals, limit yourself to micromount or thumbnail-sized specimens and label them appropriately. Radioactive minerals do produce radon. He also mentioned not to keep the radioactive minerals in your bedroom or other rooms that you spend a lot of time in. Do not walk around with the minerals in your pocket either.

MGS Club Items for Sale

MGS has decals, coffee mugs, hats and t-shirts with the club logo for sale at very reasonable prices.
See Chris Hurd at the next meeting!

The Maryland Science Center Person of the Month

Submitted by Phil Schmitz

Saturday, June 24th, 2006 found me at the Maryland Science Center as the science person of the month. I had decided to let people (mainly kids) search for fossils in gravel from the Miocene of Virginia. Both the gravel and fossils were provided by Mark Bennett. There was also going to be a free fossil raffle. Several weeks before I was to do the event, Wayne Huebschman had given me a four inch *C. megalodon* tooth to give away as I saw fit. I decided almost right away to make it a raffle item. Considering how many kids were probably going to come by the table, I decided to come up with some more raffle prizes. Mark Bennett provided a replica of a six inch *C. megalodon* tooth and some crow shark teeth from Morocco. I added some teeth from Liverpool Pt and some *Turritella* shells from Fairview Beach, VA. I ended up with 30 small bags of fossils for the raffle, plus the two big teeth. I hoped it would be enough.

Back to Saturday, I started to set up around 11:15 AM. I had one family wanting to start right away, but I wasn't completely set up yet. About fifteen minutes later I was ready. Kids started to look through the material and quickly found teeth and other fossils (vertebrae, ray crusher plates, small fish teeth, etc). Since I had set up the tables in TerraLink (which is right next to the dinosaur exhibit), I decided to discuss that sharks had been around for some 420 million years, while the dinosaurs had come much later and died out a long time ago. I could tell very early on that the dinosaurs had taken a back seat for the day. The kids just wanted to find fossils they could keep and weren't interested in the history comparison I was trying to make, but that's ok.

Some of the most asked questions were "Is this a fossil?" or "What's this?", "I can keep it?" Most of the kids were able to find the fossils on their own, the youngest was probably around three years old. Some of the kids actually wanted the pebbles, so I let them have them. I limited each child to about 4 -5 fossils. Some would pick out more, then pick the best 4 or 5 that they liked and put the rest back in. I tried to identify as many of the fossils as I could. Most were bull, gray or dusky shark teeth. There was an occasional lemon, *Hemipristis*, and *Isurus*. One child even found a thresher tooth. Some ray crusher teeth fragments and shells rounded out what they were finding. One father came by with his son, and saw the large tooth and asked his son what the big tooth was, the child replied "megalodon!" Another young girl exclaimed, "fossil shark teeth, I love finding them at Brownies!"

Throughout the day, I was letting the parents know about the raffle and had them print their children's names on a slip of paper with where they live (in case two kids had the same name). They had to be present at 3 PM to win. This went on for three and one half hours. Just a few minutes before three, the crowd started to congregate around the tables. The box containing the slips was overflowing, so a Science Center employee got a larger box and in went all the slips (about 100 slips). We started pulling names, and the first winner was not there, neither was the second. The next winner was and she quickly took the larger (replica) tooth. The four inch *C. megalodon* tooth went next. Interestingly, the first twenty names or so that we picked, only had three winners. Eventually though, all the raffle prizes went. The one thing I dreaded was having someone, child or adult, knock one of the two flats on the floor and have the gravel go all over the place. Fortunately, this did not happen. In all, well over 100 kids and some adults searched and found fossils. And I survived it!

Upcoming Shows & Events - 2006

Extracted from the EFMLS September newsletter

September 16-17: 41st Annual Gem & Mineral Show sponsored by the **Central Pennsylvania Rock and Mineral Club**, NEW LOCATION: Central Dauphin Middle School, Locust Lane, Harrisburg, PA.

September 23-24: 42nd Annual Atlantic Coast Gem, Mineral, & Jewelry Show hosted by the **Gem Cutters Guild of Baltimore**, Howard County Fairgrounds, West Friendship, MD, Md Route 32 at I-70 (*check envelope for discount admission coupon enclosed with this copy of the newsletter*).

September 23-24: 50th Annual Franklin-Sterling Hill Mineral, Gem, & Jewelry Show sponsored by the Franklin Mineral Museum and Sterling Hill Mining Museum. Franklin School, Washington Av., Franklin, NJ.

October 6-8: 50th Paul Desautels Micromount Symposium. MHA Conference Center, Elkridge, MD. Info and registration: Cal Pierson cpiereson@mhaonline.org

October 07: Fall Mineralfest hosted by the **Pennsylvania Earth Sciences Association**, Macungie Memorial Park (8 miles southwest of Allentown, PA).

November 4-5: 37th Annual Gemarama 2006, "The World of Opals" sponsored by the Tuscarora Lapidary Society. CFS, School at Church Farm, Business Rte 30 at Rte 202, Exton, PA.

November 18-19: Annual Gem & Mineral Show and 56th EFMLS Convention sponsored by the **Gem and Mineral Society of the Palm Beaches**, South Florida Fairgrounds, West Palm Beach, FL, EFMLS Annual Meeting on November 17.

Tickets for auction items. Please fill out the tickets, cut them out, and attach them to the item to be sold.

Item # 1 Seller Description:	Item # 2 Seller Description:
Item # 3 Seller Description:	Item # 4 Seller Description:
Item # 5 Seller Description:	Item # 6 Seller Description:
Item # 7 Seller Description:	Item # 8 Seller Description:
Item # 9 Seller Description:	Item # 10 Seller Description:
Item # 11 Seller Description:	Item # 12 Seller Description:

**Maryland Geological Society
Auction Form**

Member Name: _____

Page: _____

Date: _____

<i>Specimen</i>	<i>Locality</i>	<i>Asking Price</i>	<i>Sold Price</i>
1)			
2)			
3)			
4)			
5)			
6)			
7)			
8)			
9)			
10)			
<i>Total</i>			

Dates to Remember

Sunday, September 17th - MGS Meeting

Meeting Time & Location:
12 Noon to 4 PM
South Bowie Community Center
1717 Pittsfield Lane, Bowie, MD 20716
301-249-1622

Right (west) on Mitchellville Road to Pittsfield Lane (one block)
2.7 miles south of US 50 on US 301/3
Detailed directions are available on the MGS website.

Mineral of the Meeting: Pyrite. Bring a few choice specimens to the meeting.

The 4th Annual MGS Auction will be held at the Sept. 17th meeting.
(details inside)

The Rostrum

Rick Smith, Editor
1253 Brewster Street
Baltimore, Maryland 21227

First Class Mail

