



Volume 60 ◊ Number 06 ◊ June 2014 ◊ A monthly newsletter for and by the members of MAGS

Morrison Formation Palynoflora

Dr. Nina Baghai-Riding

June Program



The Morrison Formation (named after the town of Morrison, Colorado) is a rock unit from the Late Jurassic comprised of mudstone, sandstone, siltstone, and limestone which is light gray, greenish gray, or red. It extends throughout the Western United

States and often contains fossils of dinosaurs such as *Camarasaurus*, *Diplodocus*, *Apatosaurus*, *Stegosaurus*, *Allosaurus*, and others. Dinosaur National Monument, located on the southeast flank of the Uinta Mountains on the border between Colorado

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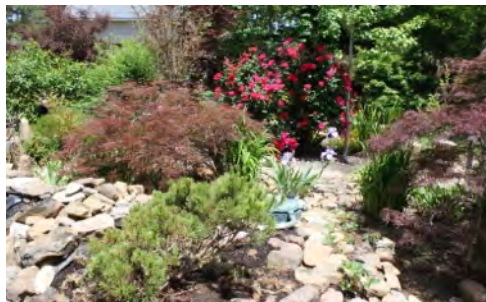
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A SOCIAL OCCASION

The first rock swap of the season was held at the home of Jimmy and Hisami McNeil on May 10. The weather was beautiful and everybody was happy to sit in the McNeils' beautiful garden and enjoy the nice weather.

Thank you to our hosts, to



Nannett, to everyone else who helped, and to all who brought delicious food.

If you would like to host a rock swap, contact Nannett at redchesty@yahoo.com or (901) 634-9388.

More pictures on P. 7.

MEMPHIS ARCHAEOLOGICAL AND GEOLOGICAL SOCIETY

MAGS Rockhound News ♦ A monthly newsletter for and by the members of MAGS

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MAGS AND FEDERATION NOTES

May DMC Field Trip Report by Lori Carter

The Georgia Mineral Society (GMS) hosted the May DMC field trip to the Union Chapel Mine in Walker County, Alabama. GMS members set up a hospitality tent with snacks, water, free buckets, and field notebooks as a special gift. Several members of the Alabama Paleontological Society (APS) were on hand to identify fossils and to show people what could be found. Among the fossils found were trilobite traces, invertebrate and vertebrate tracks, burrows, a variety of plant fossils, and swamp gas bubbles. GMS member Monica Scheller donated an unusual lycopod fossil specimen she found to the McWane Science Center in Birmingham, Alabama, so it can be studied and identified. Many thanks to all of the APS members and GMS members who made this another successful DMC trip!

MAGS General Membership Meetings and MAGS Youth Meetings are held at 7:30 P. M. on the second Friday of every month, year round. The meetings are held in the Fellowship Hall of Shady Grove Presbyterian Church, 5530 Shady Grove Road, Memphis, TN.

MAGS Website: memphisgeology.org

Please contribute articles or pictures (everybody likes pictures) on any subject of interest to rockhounds. If it interests you it probably interests others. The 15th of the month is the deadline for next month's issue. Send material to lybanon@earthlink.net.

June DMC Field Trip

WHERE: Little Pine Garnet Mine, Marshall, NC

WHEN: Saturday, June 21, 9:00 A. M.-4:00 P. M.

COLLECTING: Almandine Garnets

INFORMATION: Ken Reed, (336) 766-8581 before 8:30P. M. or mckinleycreed@bellsouth.net.

Attendees must sign a release form and pay a \$20 fee.

Links to Federation News

- ➔ AFMS: www.amfed.org/afms_news.htm
- ➔ SFMS: www.amfed.org/sfms/
- ➔ DMC: www.amfed.org/sfms/dmc/dmc.htm

Morrison Formation Palynoflora
Continued from P. 1

and Utah at the confluence of the Green and Yampa Rivers, is located in the Morrison Formation area. The photo on P. 1 shows the formation's distinctive banding.



While dinosaurs are the most exciting fossils found there (hundreds of dinosaur fossils have been found; the Morrison Formation is the real "Jurassic Park"), the Morrison Formation is rich in fossils of many kinds, both animals and plants. Fossils from the formation provide the ability to describe an environment that was dry and lacking of grasses, flowering plants, and trees. Rather, conifers were the dominant flora along with ginkgo, cycads, tree ferns, and horsetail rushes. Much of the fossilized vegetation was riparian, living along the river valleys.

Dr. Nina Baghai-Riding, a MAGS Member who is an Associate Professor of Biology and Environmental Science at Delta State University, will talk about her research on the *palynoflora* (the pollen and spores of a region or site, considered as a whole) of a unique locality in the Morrison Forma-

tion. A diversity of plant and animal fossils were preserved there. One objective of the study of the biota of this locality is to provide clues about the climate and paleontology of the Morrison landscape.

President's Message

Greetings to all the Memphis Archaeological and Geological Society Members, and rockhounds around the world. We had another spectacular mineral and gemstone Show. Thanks to all the Members, dealers, educators, and vendors that helped produce the Show.

The dewberries are green and still blooming. The flowers are beautiful this time of year and so are the hummingbirds. Take time to enjoy nature while you're out and about collecting rocks, minerals, fossils, and gemstones.

Upcoming programs and field trips this year will be educational and fun for all. But always, safety is the main factor. If something is in an area that looks unsafe, leave it—it's not worth an injury or even worse a fatality. Stay in designated collecting areas. If something looks dangerous keep clear and report it to the field trip leader.

There has been a great interest in collecting diamonds this year at the Crater of Diamonds State Park near Murfreesboro, Arkansas. So far there have been several diamonds found, some near six carats. So who knows when the next lucky individual will find that amazing once-in-a-lifetime diamond discovery?

As Charles Darwin may have closed,

Origin-ally yours,
W. Paul Sides
MAGS President

Clement Museum Show

Just a reminder: the Ben E. Clement Gem, Mineral, Fossil, and Jewelry Show will be June 7th and 8th at Fohs Hall in Marion, Kentucky. If you should have questions, please call the museum at (270) 965-4263 or visit our website at www.clementmineralmuseum.org.

A Rockhound's Mother's Day

Kim Hill

I was so excited about my plans for Mother's Day. I was actually awake long before the alarm was set to go off. It was going to be a busy day so I tried to get a little more rest, but sleep wouldn't come. So I got up. Now people who know me know I put the night owls to sleep. My morning, if not taking kids to school, usually starts around 10 A. M.

I was ready long before the pickup time. I was going to spend the day at 20 Mile Creek in Mississippi to hunt for shark's teeth!!!! Friday night at the meeting, fellow Member Bonnie Cooper mentioned she wanted to go to the creek for her Mother's Day. I quickly made the "sad, can I come eyes", and she asked if I would like to go...OH YES!!!

We had a nice drive down and the weather looked to be great: warm and the day started out overcast. Almost as soon as we arrived Bonnie and

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A Rockhound's Mother's Day Continued from P. 3

I headed down to the creek with shovels and Bob's homemade sieves (they work great!). Bob stayed up at the truck setting up. We headed off to right under the overpass and walked to some sandbars. I found an overhang in the middle of the creek and quickly found eight or so nice teeth.



When Bob joined us, he told us he had talked with someone who said the Mississippi club had been out there Saturday and he had seen at least 20 cars there. So we felt lucky to be finding anything. Bonnie and Bob found a spot and worked it a while and I moved around the sandbar and some fallen trees, finding something every few scoops.

Bob walked back to the truck and Bonnie and I worked the area a little longer, then went back down to the boulders. Bonnie went back to the truck for lunch and to rest her eyes. The sun had come out and was causing a glare on the water, but I never got out of the water.

When she came back down she helped some kids with a family there find some teeth. I had gone back to an area where I had found so many teeth last year and was finding something every few

scoops. A couple came down to the bank and asked if I was having any luck. I had just found a nice tooth and held it up for them to see.

It was then I noticed that the sun was starting to go down and I was the only person still in the creek! I looked up and saw Bonnie and Bob sitting by the truck, so I told myself I would go up if I could find just one more nice tooth. I didn't find just one but two really nice ones. Well, what if I was in a pocket?

After a few more scoops I wasn't finding any more teeth, so I said one more and I will leave. Again, I didn't find just one but several, or something else interesting to me. Finally I had to tell myself OK, next scoop with nothing in it and I AM going up. Couple scoops more and I didn't find any more, so I made myself get out.

Bob and Bonnie came fully prepared. We even had a private changing room to get out of our wet clothes, and I was soaked, complete with seat. What a great way to go shark tooth hunting!!!



We had a pleasant drive back, talking about the day, future trips, upcoming field trips, past trips, places we would like to go, and the big Show last month.

I must say: this was one of my best Mother's Day outings!!

April Board Minutes

Carol Lybanon

The MAGS Board of Directors met April 3 at St. Francis Hospital, 5959 Park Avenue. The meeting was called to order at 6:40 P. M. by W. C. McDaniel. Present were: Mike Baldwin, Ron Brister, James Butchko, Bonnie Cooper, Charles Hill, Carol Lybanon, Matthew Lybanon, Neville Mayfield, W. C. McDaniel, Paul Sides, Bob Cooper, and Marc Mueller.

Secretary: The minutes were accepted as presented.

Treasurer: No report.

Membership: Neville reported there are several new Members, plus a few renewals.

Field Trips: W. C. gave the DMC Trip report. 55 people attended. He thanked Charles for all his work. W. C. also reminded us that our field trip to Park Hills, Missouri, will be this Saturday and Sunday. He has a trip for Memorial Day weekend in the works, to collect quartz. He is also working on another trip to collect dolomite. A motion was passed that we give James Johnson a finder's fee for setting up trips to the calcite site in Eminence, MO.

Adult Programs: Robert Connolly will speak in May.

Junior Programs: The University of Memphis Graduate Egyptology group is coming in April.

Show: Jim talked about a program for the April Membership Meeting, to generate interest in the Show. He had planned to bring geode bowling, but the Board thought Rocks Around the Clock would be better.

Library: Ron said everything was good; nothing new.

Newsletter: Matthew asked for pictures from the Missouri trip, and asked for people to send pictures that they take at the Show.

Webmaster: Mike reported the newsletter - *Continued, P. 7*

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Our 2014 Show

RockZone Fun



We Appreciate Our Volunteers



Our 2014 Show (continued)

Demonstrators and Exhibitors



Dealers



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A Social Occasion



April Board Minutes
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copies tomorrow.

Historian/Rock Swap: No report.

Old Business:

- ▶ Ron reported on the Archaeology Interest Group. Chucalissa bought two new cases for us. He will display them at our Show. He also said he might bring Amber Dunn's house model to the Show.
- ▶ There was a reminder to make sure the Rock Swap is mentioned in the May newsletter.
- ▶ Mike reminded the Board that the science fair will be on April 15. The volunteers will meet at 9:00 A. M., and judge earth science projects.
- ▶ Mike reported that he presented some programs at Bailey Station Elementary School. Nannett presented a program at Dino Days. Jim attended the Graceland event, and handed out material to the Scouts.

ter is on the web. He will mail printed

- ▶ Paul approached Idajeon Jordan about taking over as Director-Programs; she declined.
- ▶ Our policy about field trips being restricted to MAGS Members was reiterated; people may not join at a trip.
- ▶ Neville questioned why he was not reimbursed for gas mileage. After a discussion, the Board still declines to allow reimbursement for mileage. A motion was passed that a committee headed by Paul will be formed to develop a uniform policy for reimbursement of expenses. This policy will be added to the Standing Rules.
- ▶ W. C. sent a letter to the IRS requesting that our fine be removed.

New Business:

- ▶ The Board decided to donate \$100 to the Ben E. Clement Mineral Museum's Raise the Roof campaign, if it is a 501(c)(3) organization.
- Meeting adjourned at 8:15 P. M.

April Meeting Minutes

Carol Lybanon

The MAGS Membership Meeting was held at Shady Grove Presbyterian Church on April 11. The meeting was called to order at 7:30 P. M. 37 Members and 7 visitors were present.

BUSINESS: W. C. McDaniel gave a field trip report. Matthew Lybanon reminded Members that the Archaeology Interest Group will meet April 12, 10:00-noon. W. C. complimented Matthew on the newsletter. He reported that the Memphis Botanic Garden complimented us on the newsletter's quality.

PROGRAM: The meeting was turned over to W. C., who conducted a program on the Show.

*What makes a club successful?
Participating members—get involved.*



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MAGS2014—Upcoming Field Trips

Dates	Location	Trip status
June 21	20 Mile Creek, Mississippi Cretaceous fossils Joint field trip with North Mississippi Gem and Mineral Society	trip bulletin to be published
June 28 (new date)	Aggregate to Artifacts Making objects from concrete W. C.'s back yard	trip bulletin available
July 12	A/C Appreciation Day, Part I Discovery Park, Union City, Tennessee <i>See new program note</i>	trip bulletin to be published
August 9	A/C Appreciation Day, Part II Belz Museum, Memphis, Tennessee <i>See new program note</i>	trip bulletin to be published
September -December	Fall field trips to Vulcan Quarry, Parsons, Memphis Stone and Gravel, and Jonesboro, Arkansas, gravel pits are planned.	trip bulletins to be published

New Program

A new benefit of your membership in MAGS. MAGS will pay 50% of the cost of an admission to a museum or event for each member attending an official published trip of the club. Collecting trips are not included in this program.

Found On The Web

There is a voluminous body of published scientific literature related to National Park Services paleontological resources. The following web page is a gateway to that literature:

www.nature.nps.gov/geology/paleontology/paleo_pubs.cfm

Jewelry Bench Tips by Brad Smith

SAWING JUMP RINGS

The difficult part of making jump rings for me has always been holding the coil while cutting off the individual rings. I use a saw to get the best fit when closing the rings later. I've seen all sorts of suggestions for ways to hold the coil, but the one that works best for me is this little jig made from

scrap wood.



It's about 2 inches wide and 4-5 inches long with a groove cut down its length to cradle the coil of wire and a thin stop attached to the front end.



To cut the rings, thread your

saw blade through the coil, hold the coil down in the groove and against the front stop, and saw at about a 40 degree angle.

Don't forget to use some wax or cutting lube. It really does make a difference. If you don't believe me, do an experiment while you're cutting a mess of rings. Count how many rings you cut before breaking a blade, first without lube and then with some every 6-8 rings.

SAVE WHEN BUYING SILVER

Silver products like sheet, wire, and casting shot are sold by the Troy ounce at what is called the spot price. That's what companies pay for the pure metal on the commodities market, and the spot price changes

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Jewelry Bench Tips daily.

Continued from P. 8 But in addition to the spot price, there is also a cost to fabricate the metal into wire or sheet, so the price of the item you buy is the cost of the metal plus the cost to make it. Different products have different fabrication charges because each takes a different amount of labor. Also, different companies will have different fabrication charges because of local labor rates and their desired profit margin.

You can save money by finding a company with a lower fabrication charge. Also, note that the fabrication charge per ounce is less on larger orders, so you can save more by buying more. Find a friend to place a joint order and split the shipping charges.

But for casting purposes, there's an even better way to save. Buy your silver at a coin store. They sell bars and rounds in pure and Sterling for the spot price plus about a dollar per ounce.



The local coin shop adds only a small profit over the spot price. Further, they often waive the sales tax on a cash buy. So I save about \$3 per ounce, pay no tax, no shipping charges, and support a local business.

Get all 101 of Brad's bench tips in "Bench Tips for Jewelry Making" on [Amazon](#).

Hot Springs Field Trip Pictures

Here are a few pictures from the Memorial Day Weekend field trip to the Jim Coleman and Ron Coleman quartz mines.



Megalodon Hunters



Dallas-area teachers Wes and Kerry Kirpach dive off the coast of Venice, Florida, each year. Last July Wes Kirpach found half of a 3.75-inch megalodon shark's tooth. Kerry Kirpach found a similarly sized partial tooth an hour later.

Later the Dallas-area teachers realized the cracks along the broken half of each piece perfectly aligned. One man who has been searching for the fossils for 30 years says he's never heard of any-

one recovering matching megalodon tooth halves.

Argentine Discoveries



Dinosaur fossils found in Patagonia provide the first evidence that long-necked, whip-tailed diplodocid sauropods survived well beyond the Jurassic period, when they were thought to have gone extinct. A researcher at Buenos Aires' Maimonides University described the find as the first definitive evidence that diplodocids reached South America, and the most recent geologic record of this branch of sauropod anywhere.

The team says the fossils show that diplodocids *Continued, P. 10*

Argentine Discoveries (continued)



roamed South America during the early Cretaceous era, after scientists thought these kinds of dinosaurs became extinct, and that the diplodocid clade (family group) evolved from other dinosaurs before the Earth's continents split apart, earlier than previously thought.

Also, a local farm worker stumbled on the remains of a giant dinosaur in the desert near La Flecha, about 250km west of Trelew,

Patagonia. Based on its huge thigh bones, it was 40m long and 20m tall. The fossils were then excavated by a team of palaeontologists from the Museum of Palaeontology Egidio Feruglio.

The researchers estimate that the dinosaur weighed 77 metric tons, 7 metric tons heavier than the previous record holder, *Argentinosaurus*. Scientists believe it is a new species of titanosaur—an enormous herbivore dating from the Late Cretaceous period.

The giant herbivore, as yet without a name, appears to be the largest creature ever to walk the Earth.

Calendar

June 5, 2014

Board Meeting, St. Francis Hospital, 6:30 P.M.

June 7 & 8, 2014

Clement Museum Show, Marion, KY

June 13, 2014

Membership Meeting, Shady Grove Presbyterian Church, 7:30 P.M.

June 21, 2014

MAGS/NMGMS Field Trip, 20 Mile Creek, Mississippi

June 28, 2014

MAGS Field Trip, McDaniel residence

Memphis Archaeological and Geological Society
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