

ROCKHOUNDS HERALD

920 Yorktown Road, Dothan, AL 36301-4372

www.wiregrassrockhounds.com

April 2014



Words from...

The President

What a show we had!!! If you weren't there, you missed a first-rate event. Despite the torrential rain on Sunday, we had a great crowd both days and the vendors all seemed very, very happy. Some even remarked that they preferred the Farm Center to the venue we've been using. I have to agree. With the lower ceiling and better lighting, the space was more intimate and one truly befitting a gem show---the sparkle of all the shiny stuff didn't get lost in a cavernous expanse of empty space like it always did at the gymnasium.

There will be lots to discuss as we review the weekend's events at the **meeting on April 27th**. Bring your observations and your comments as to what could have and should have been done differently. With the 2014 show out of the way, it's never too early to start planning for 2015. ☺

Looking a couple months ahead to the start of the summer break, if you expect to find yourself vacationing in the Great Smokies you might want to skip a day of singing stage shows and drive a couple hours northeast of Gatlinburg to Gray, TN. There you'll find the East Tennessee State University (ETSU) & General Shale Natural History Museum Visitor Center and Gray Fossil Site. (There's a short profile about the center on page 6.) ETSU has quite a collection of fossils, and the cool part is they literally dug them up from their own backyard.

In the meantime, you can visit their virtual gallery and take a 360° tour of three Miocene fossils from the permanent collection: a turtle shell, a tapir skull and an elephant foot. The second link below is "mostly" for the kids. It has a fossil viewer, some online word puzzles and a point-and-click coloring book. I'll just say it is hard to put down the digital paintbrush, and let you draw your own conclusions about it (pun intended).

<http://www.etsu.edu/naturalhistorymuseum/virexhibits/gallery.aspx>

<http://www.etsu.edu/naturalhistorymuseum/education/funstuff.aspx>

See you on April 27th. Jeff

Announcements

April Meeting Program – Joe and Margie Cody will give a talk on arrowheads for our meeting on April 27th.

Basic Beading Class – Diane Rodenhizer's beading class that was cancelled due to a thunderstorm and power outage in March has been rescheduled for May 4th at 1:00 PM. As originally planned, the class location will be Anne Trice's workshop at 806 S. Lena Street in Dothan. Check the club's website for a list of needed supplies or call Diane at 334-447-3610.

Upcoming Shows

April 26 – 27

Memphis Archeological & Geological Society

Memphis, TN

Source: <http://www.the-vug.com/vug/vugshows.html>

Meeting Minutes – March 2014 – by Secretary

The meeting was called to order by President Jeff DeRoche at 2:10 PM. Jeff welcomed the 41 club members in attendance for the meeting and wished Happy Birthday to a long list of March birthday club members. Jeff asked if everyone got the current newsletter and our new members, Betsy Hibbitts and Roger Boon had not. They were handed a copy of the newsletter and they have been added to the email list. Jeff commented that pot luck for the meeting seems to be going well so we will continue that for our future meetings.

CORRESPONDENCE: The club received the usual newsletters from our fellow clubs and the AFMS newsletter. We also received a really nice email from Esther and Grady Dunn's daughter, Linda. She has been surfing our website and found pictures of her parents in the gallery and was happy to see that they are still getting out and about.

OLD BUSINESS: The February minutes were approved without changes. Diane Rodenhizer presented the treasury report. Bruce Fizzell gave an update on rock collecting at a site near Andalusia and suggested some possible dates for a dig.

Arnie Lambert gave an update on the show. The signs have been updated, the Farm Center is putting the show on their marquee, and the Merinos have painted a sign to put up at the Farm Center. There will be two welcome tables. Joe and Margie Cody will man one. Brooke Brown will man the second one and we will all sub in as needed. We will have a survey to ask how people found out about the show to determine the effectiveness of our various forms of advertising.

Joe Cody and Garry Shirah will be doing cabbing demos and T. J. Moore and L. J. Ward will be giving knapping demos. JoAn Lambert said the food will be coming from Larry's and that Laural Meints will be picking up drinks and chips. Anne Trice is going to get us all stick on name badges. New member, Betsy Hibbitts, is going to donate a bunch of things for the kids' sandbox. She has sharks teeth, small meteorites and ceramic marbles.

NEW BUSINESS: Discussions ensued about potential field trips. Jones quarry was mentioned as a possibility, but several members said it is completely grown over. A joint trip to the lime pits in Marianna with the Panama City club was also discussed. Some of our Panama City/Dothan members said they would check out potential dates.

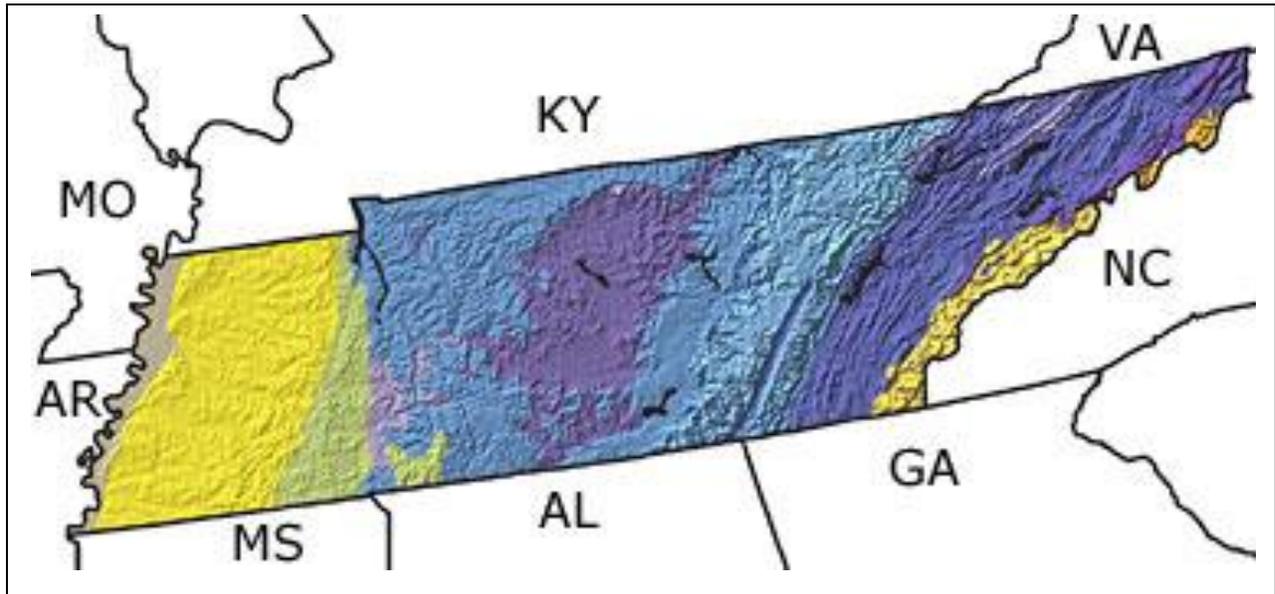
Diane's beading class at Anne's was cancelled due to a storm and power outage, so it will be rescheduled for a date after the show. WTVY – Live at Lunch has invited a club member to speak on Wednesday. Christian Holderith volunteered to do the three minute TV spot. The club voted to give Arnie \$200 to purchase items from the show's vendors to use as door prizes at our club meetings.

SHOW & TELL: Show & Tell started out with a really nice purple fluorite specimen Arnie got at the Panama City club's annual auction. I brought in some samples of the rocks I collected with the Albuquerque, NM club. I joined them for a dig in Deming and visited an old friend in Las Cruces where they were having a gem and mineral show. I also went to a fossil museum at the university and stopped at a mineral museum in Socorro. Bruce showed a marble and turquoise bear, a piece of petrified wood and some turquoise I got for him on my NM trip. Joan Blackwell brought some slabs of picture jasper I got for her in NM and some rocks she collected in Columbiana, AL. JoAn displayed a beautiful beaded egg in a nest. Ken Wilson brought a stash of cabs he cut, some wire wrapping, an arrowhead and some rhodonite. Margie showed us an arrowhead and a pair of scrapers Joe gave her and Diane Tetzlaff brought four really nice arrowheads she found while out walking her dog in a neighbor's field. Christian brought an amazing 34 pound piece of lapis that belongs to a friend of his. He also showed some lapis jewelry he made as he continues to learn wire wrapping.

PROGRAM: The club broke for refreshments and, as usual, we had enough food to feed all 41 of us at least 3 times over. After refreshments, we regrouped for a presentation on opals given by Grady Dunn. Grady gave a great class and had a huge stash of all different types of opals for us to look at. Like Grady and Esther, opals are my favorite so getting to look at all the cut and uncut stones, magazines and reference books was really wonderful. Grady talked about how opals are formed, where they are commonly found and which have the most color and fire. He talked about several places he had gone to dig, but noted that most of them are closed to the public now. Grady also had some triplets for sale that Esther had made. He invited any club members with an interest in learning to cut opal to his house. After the program, the meeting adjourned and we got a chance to examine the opal stash Grady brought.

Respectfully submitted by Pat Leduc

Tennessee – Paleontology and Geology Overview



The Precambrian: In the Precambrian, the future state of Tennessee lay beneath marine waters far south of the equator. Sediments that accumulated on the sea floor were later metamorphosed and intruded by molten material during mountain building. These igneous and metamorphic rocks are now exposed in the Blue Ridge Mountains along the eastern border of Tennessee.

The Paleozoic: During this time, Tennessee lay along the southern margin of future North America as the continent drifted north toward the equator. Shallow sea water covered the state through most of this interval (Cambrian through Early Carboniferous), and the sea floor was home to a variety of animals, including brachiopods, trilobites, crinoids, bryozoans, and corals. In the Late Carboniferous (Pennsylvanian), mountain-building to the east produced vast amounts of sediment that was carried by westward-flowing rivers into the shallow sea. Huge, swampy deltas developed. These low-lying areas were lush with scale trees, horsetail rushes, and other plants that would eventually produce Tennessee's coal deposits. The state lay above sea level by the end of the era, and erosion outpaced deposition.

The Mesozoic: Tennessee lay above sea level for much of the Mesozoic, and erosion outpaced deposition. The sea advanced across the western part of the state in the Cretaceous, bringing a return to marine conditions in that region. Crinoids, clams, oysters, and snails thrived in the shallow waters, while dinosaurs walked the dry land farther east.

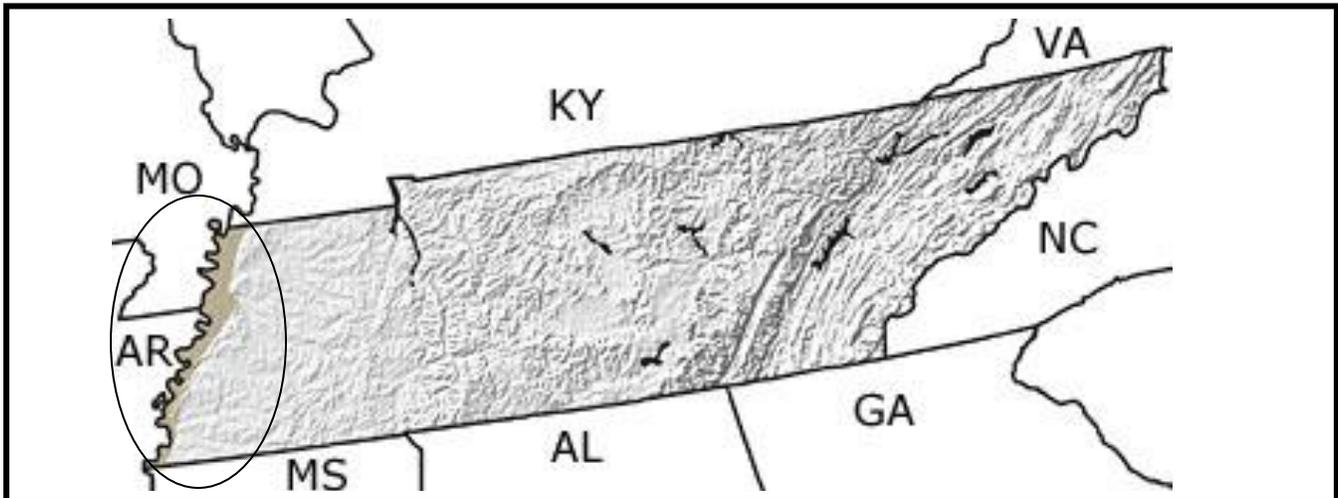
The Cenozoic: During the Early Cenozoic (Tertiary), warm, tropical marine waters periodically advanced across western Tennessee, while the rest of the state remained above sea level. Molluscs and other typical marine organisms have left their fossils in the marine rocks; elephants, tapirs, alligators, and other animals roamed a landscape of swamps, forests, and

Geologic Periods

0-1.8	Quaternary
1.8-65	Tertiary
65-145	Cretaceous
145-200	Jurassic
200-251	Triassic
251-299	Permian
299-359	Carboniferous
359-416	Devonian
416-444	Silurian
444-488	Ordovician
488-542	Cambrian
542-4650	Precambrian

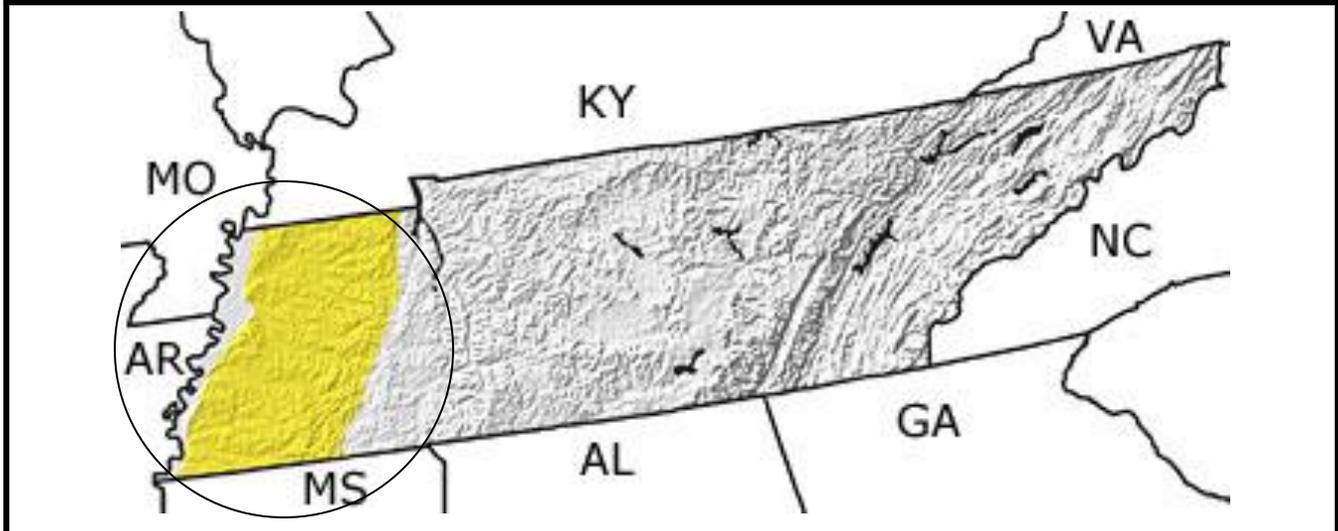
ivers. The ice sheets that covered parts of North America in the Late Cenozoic (Quaternary) did not extend as far south as Tennessee. However, fossils of mastodons found in the state tell us that the climate did become significantly cooler during this time.

Tennessee – Cenozoic and Mesozoic Eras



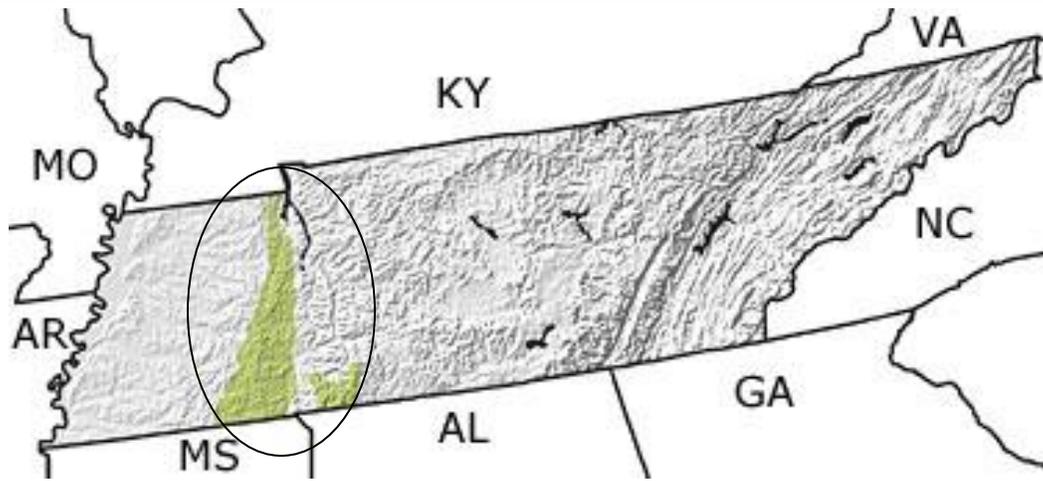
Quaternary Period

Quaternary sediments are exposed in a band along the western border of the state; material of this time interval occurs in other parts of Tennessee, but the exposures are too small to show up on this map. One such area is in Williamson County in central Tennessee, where two mastodon skeletons have been uncovered at the Coats-Hines site.



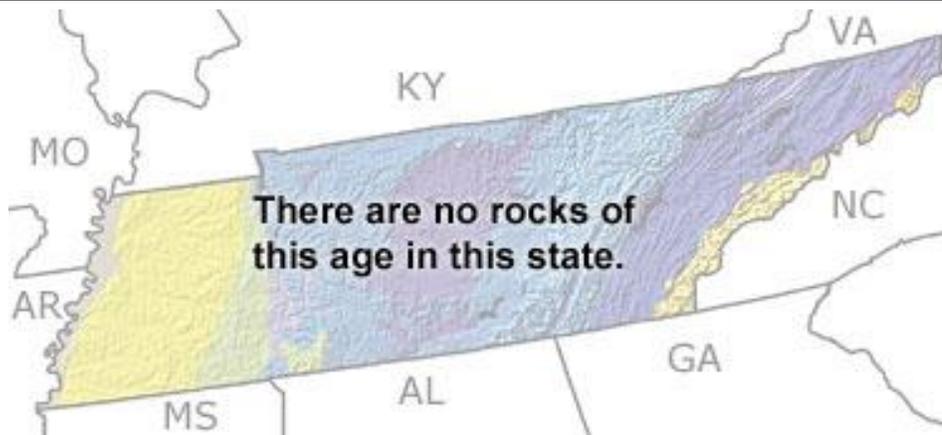
Tertiary Period

A warm tropical sea periodically flooded western Tennessee during the Tertiary. Fossils of marine organisms can be found in these sediments. The eastern part of the state was above sea level, and the landscape was dominated by large rivers, swamps, and forests. The Gray Fossil Site in far northeastern Tennessee (Washington County) was discovered during road construction in 2000 and appears to represent an ancient sink hole into which many animals fell and were trapped. Fossil remains include rhinoceros, the short-faced bear *Plionarctos*, a gomphothere (an early elephant), tapir, peccary, a badger, a lesser panda, and alligators.



Cretaceous Period

Cretaceous rocks are exposed in a north-south band across western Tennessee. These rocks are part of the Mississippi Embayment, an area covered by a shallow sea that flooded the region as North and South America moved farther apart during the breakup of the supercontinent of Pangea. Invertebrate fossils are abundant in these rocks, including clams, oysters, snails, and crinoids. The official state fossil of Tennessee is a small bivalve, *Pterotrigonia thoracica*, found in Cretaceous rocks. The only dinosaur bones found thus far in Tennessee are those of the plant-eating hadrosaur *Edmontosaurus* that lived during this time.



Jurassic Period

Most of Tennessee was above sea level during the Jurassic. As a result, erosion outpaced deposition, and there are no rocks of this age found in the state.

Triassic Period

Most of Tennessee was above sea level during the Triassic. As a result, erosion outpaced deposition, and there are no rocks of this age found in the state.

The East Tennessee State University (ETSU) & General Shale Natural History Museum Visitor Center and Gray Fossil Site

In late May of 2000 fossils were discovered by a Tennessee Department of Transportation (TDOT) road construction project on the outskirts of Gray, Washington County, Tennessee. TDOT employees, researchers from UT-Knoxville, and the State Archaeologist recognized the potential significance of the site and sought to protect it. On September 15, 2000, the governor announced that the road project would be relocated to save the fossil site for research and education.

The Miocene Collection – The majority of the fossils stored here have been excavated from directly behind the museum at the Gray Fossil Site. These fossils are dated in the late Miocene, about 4.5 to 7 million years old. The Gray Fossil Site Miocene Collection features the world's largest discovery of fossil Tapirs, particularly an extinct variety known as *Tapirus polkensis*, the dwarf tapir and new species of Red Panda, *Pristinailurus bristoli*, and Woodland Badger, *Arctomeles dimolodontus*.

The Pleistocene Collection – The museum contains a sizeable collection of Ice Age Fossils including peccary, deer, tapir, horse and carnivore scat material collected with permission from a location commonly known as "Guy Wilson Cave". The rest are from the nearby Saltville, Virginia fossil site, a salt lick that has preserved many Ice Age Mega-fauna including Mammoth, Mastodon, Giant Short-faced Bear and evidence of predation by Dire Wolf.

Gray Fossil Site Excavations – 2013 Field Season

Alligators, red pandas, camels, and beavers have highlighted the 2013 field season at the Gray Fossil Site. Throughout 2013, paleontologist found new species and added a variety of specimens to the collections of fossils that have been found during previous dig seasons. "This has been a good year for us," said Dr. Steven Wallace, museum curator and Gray Fossil Site director "We had a busy field season and were able to find a new beaver, horse material, more panda, camel, and more than one 3D tapir skull. Several of these finds were from our spoil piles, which are piles of dirt that were moved during construction of the museum in 2005."

The 2013 finds include a second type of beaver, which was found in the spoil piles. The first one, found several years ago, is the size of a muskrat. This new find is the same size as beavers today. Having two types of beavers at the same locality suggests that they had very different lifestyles; otherwise they would be competing for the same resources. Alligators have been a highlight from the dig season as well. A nearly complete skeleton with skull and jaws was recovered late in the field season. Several isolated bones found near the primary alligator skeleton, suggest that a second individual is present. Paleontologists hope to recover more of this second individual next summer.

A tibia, or shinbone, similar in size to that of a Fisher, a medium-sized member of the weasel family, was found in several pieces. One section was recovered in place, whereas the other was within a jacket containing alligator material. "We haven't found any carnivorans of this size," said Wallace, "so the tibia represents a new species for Gray!"

A summer-camper found a peccary tusk in one of the spoil piles. Peccaries are America's version of a pig. Today's peccaries are much smaller than the fossil forms found at Gray. Most live in Central and South America, but the collared peccary spills into southwestern U.S. deserts. "Even though we have at least three kinds of peccaries at Gray, they are rare at the site, so every specimen is important," said Wallace.

Several other rare finds were discovered during the field season, such as a camel hoof core, which is significant because camels are rare at Gray. Excavators also uncovered a few 3D tapir skulls, which are unusual because sediment in Gray is clay as opposed to rock, so fossils have been compressed over time, which leads to most skulls found at Gray being crushed. Museum preparators generally spend several weeks piecing together each skull found. Paleontologists also found more red panda material, which is becoming one of the common animals at the site. Red panda fossils have been recovered in all the test pits at Gray. Some of the panda fossils found represent individuals that are at least three times the size of a living red panda.

Club Meeting – March 2014

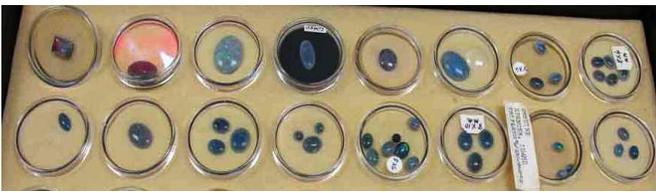
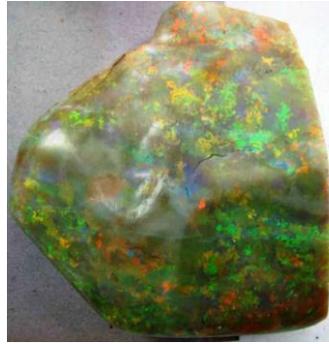
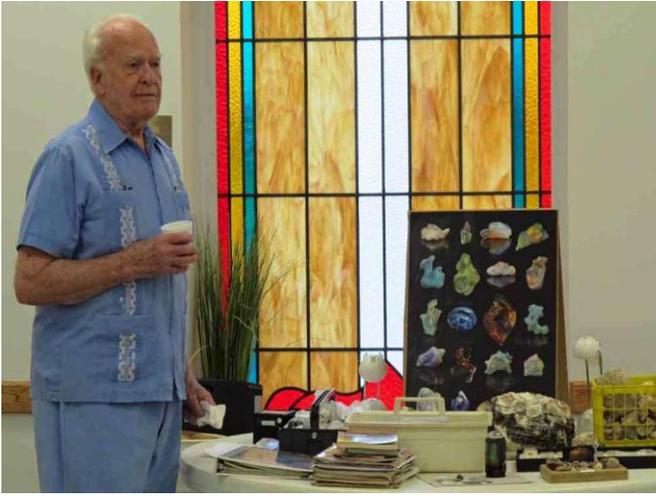
Photos by Pat



Lots of folks gathered for the last meeting before the show. Great conversation and food, plus we did a little business.

Meeting Program – March 2014

Photos by Pat



Grady Dunn gave a wonderful talk on opals and told of the collecting adventures that yielded some of his specimens.



Gem & Mineral Show – April 2014

Photos by Pat



Gem & Mineral Show – April 2014

Photos by Pat



Success!!!





Fossil Cast Project

Find an interesting object and set it in stone, letting its impression live on in the form of a fossil.

Have fun making your own fossil and learning how scientists use them to unlock secrets of the past, including those that provide a remarkable insight into life in the age of dinosaurs.



Make Your Own Fossil

What you'll need:

- Plasticine
- 2 paper cups
- An object that you would like to use as the fossilized impression
- Plaster of paris
- Water

Instructions:

1. Flatten a ball of plasticine until it is about 2 cm thick while making sure the top is smooth.
2. Put the plasticine inside a paper cup with the smooth side facing up. Carefully press the object you want to fossilize into the plasticine until it is partially buried.
3. Carefully remove the object from the plasticine. An impression of the object should be left behind.
4. Pour half a cup of plaster of paris into the other paper cup. Add a quarter cup of water to the plaster and stir until the mixture is smooth. Leave it for around two minutes.
5. When the mixture has thickened pour it on top of the plasticine in the other cup. Leave the mixture until the plaster has dried (leave it for 24 hrs if you want to be sure).
6. When the plaster has fully dried, tear away the sides of the paper cup and take out the plasticine and plaster. Keep it in a warm dry place and enjoy your very own fossil.

What's happening?

Fossils are extremely useful records of the past. In your case you left behind an impression of an object you own but fossils found by scientists around the world can date back to the time of dinosaurs. These fossils allow paleontologists (the name of scientists who study these types of fossils) to study what life might have been like millions of years ago. Fossils such as the one you made can leave delicate patterns and a surprising amount of detail.

Fossil Word Search

Circle the names of **8** different types of fossil.

These can be forwards, backwards, down, or at an angle.

F	G	C	S	N	I	M	D	E	D
E	E	I	H	P	M	C	E	L	E
R	T	R	I	L	O	B	I	T	E
T	G	X	N	R	L	N	R	W	R
L	T	B	A	D	T	L	G	M	D
T	L	L	T	F	S	A	K	E	S
D	O	P	A	R	T	E	T	C	T
X	I	T	E	S	C	Q	N	E	I
T	D	O	S	C	Y	C	A	D	N
G	A	S	T	R	O	P	O	D	Y

CORAL - an animal with tentacles that lived in warm oceans.

CYCAD - a primitive plant with cones.

DEER - a mammal whose males grew large antlers every year.

FERN - a plant that produces spores and no flowers.

GASTROPOD - a snail that lived in a spiral-shaped shell.

SPONGE - a soft animal that lives in the sea.

TETRAPOD - an early animal that walked on land on four legs.

TRILOBITE - a sea animal with an outer shell divided into segments.



Who What Where When Why How

April Birthdays

APR 6 William Gainey
APR 7 Joe Schings
APR 7 Bob Whittaker
APR 13 Diane Rodenhizer
APR 14 Ashley Rockwell
APR 14 Jane Whitton
APR 20 Jammie Knowles
APR 23 Neil Pollan
APR 25 Ken Johnson
APR 27 Bruce Fizzell
APR 29 Elliott Whitton

Random Fossil Facts

The largest nautiloid on record is called *Endoceras*. It is from the **Ordovician Period** and has been measured up to 13 feet (3 ½ meters) long.



Source: http://www.fossils-facts-and-finds.com/facts_on_fossils.html

Meeting Information

Time: 2:00 PM
Date: Fourth Sunday of each month (except June, July and August)
Place: Fellowship Hall – Tabernacle United Methodist Church
4205 S. Brannon Stand Road
Dothan, AL

Officers

President – Jeff DeRoche
334-673-3554

Vice President – Anne Trice
334-718-4838

Secretary – Pat LeDuc
334-806-5626

Treasurer – Diane Rodenhizer
334-447-3610

Bulletin Editor – Joan Blackwell
334-503-0308
Tfavorite7@aol.com

Webmaster – Pat LeDuc
334-806-5626

Membership Chair – Diane Rodenhizer
334-447-3610

Show Chair – Arnie Lambert
334-792-7116

Field Trips Chair – Bruce Fizzell
334-577-4353

Hospitality Chair – JoAn Lambert
334-792-7116

Club Hostess – Laural Meints
334-723-2695

Club Liaison – Garry Shirah
334-671-4192

Website: www.wiregrassrockhounds.com

Objectives

To stimulate interest in lapidary, earth science and, when necessary, other related fields.

To sponsor an educational program within the membership to increase the knowledge of its members in the properties, identifications and evaluations of rocks, minerals, fossils and other related subjects.

To cooperate and aid in the solution of its members' problems encountered in the Club's objectives.

To cooperate with other mineralogical and geological clubs and societies.

To arrange and conduct field trips to facilitate the collection of minerals.

To provide opportunity for exchange and exhibition of specimens and materials.

To conduct its affairs without profit and to refrain from using its assets for pecuniary benefit of any individual or group.

Classified Ads

Looking for an item to round out your rock collection?

Got a specimen, tool or handicraft for sale or trade?

Submit the pertinent details to me by the 10th of each month and your inclinations will be made known to the membership in the next bulletin.

N. J. Blackwell
28 Lakeview Trail, Apt. C
Daleville, AL 36322
Phone: 334-503-0308
Email: Tfavorite7@aol.com

Annual Dues

Single \$15
Family \$20

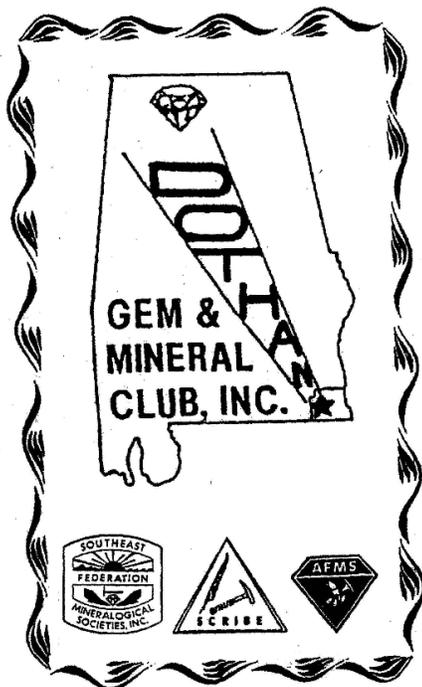
Refreshments

APR 27 – Club Potluck

ROCKHOUNDS HERALD

Editor – N. J. Blackwell
28 Lakeview Trail, Apt. C
Daleville, AL 36322

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Where you might hear...

The Tennessee State Fossil is:



Pterotrigonia thoracica

This small bivalve lived in the soft, clay sands of the shallow sea that encroached onto North America during the Cretaceous Period (~ 100-65 million years ago). Frequently these fossils are found in large concentrations, indicating mass die-offs, the causes of which remain unknown.

Source: Photos and information courtesy of The Paleontology Portal (www.paleoportal.org).

Member of
Southeast Federation of Mineralogical Societies, Inc.
American Federation of Mineralogical Societies