

The official bulletin of the Dothan Gem & Mineral Club, Inc.

# ROCKHOUNDS HERALD

920 Yorktown Road, Dothan, AL 36301-4372

[www.wiregrassrockhounds.com](http://www.wiregrassrockhounds.com)

## October 2013



### Words from...

#### The President

Thanks to all who made it out for the September meeting. I'm excited about the plans we've made for moving the club forward in the coming year, and I'm eager to schedule even more classes, digs and other activities. If you weren't at the meeting and have suggestions for either, please let me know. In this issue, you'll find the second, of a three-part series on Alabama Physiographic Provinces written by clubmember, Elliott Whitton. The Announcements section below also has info on a really cool website where you can see some of the nation's finest natural history collections.

Hope to see everyone at the Fellowship Hall on **Sunday, October 27**. Jeff

### Announcements

Here is something really special...a virtual tour of the **Smithsonian National Museum of Natural History** room by room. You can now view some of the museum's many holdings from your computer—day or night—all while avoiding other tourists, traffic, and the expense of traveling to Washington, DC.

When you click the link (<http://www.mnh.si.edu/vtp/1-desktop/>), the first image that pops up is the elephant in the First Floor Rotunda. If, like me, you're interested in seeing the **Geology, Gems & Minerals** display, click the "second" button (upper right corner of the screen). That pops up a map of the second floor where you'll see the geology exhibit listed. Click any of the small blue circles and you'll immediately be transported to that section of the gallery (see the photo). At the bottom of your screen, you have other buttons that zoom in and out on the image and will allow "the virtual you" to turn in all directions to see what is around you.



There's a lot of capability built in to the site. Instead of clicking the small blue circles to jump from gallery to gallery, you can essentially stroll through the museum by clicking the big blue arrows on the floor. Also, watch for a button shaped like a camera that occasionally appears at the bottom of the screen. Clicking that will show close up images of the individual specimens and other exhibits. **One last thing, fossils are on the first floor.** Check out the site. I think you'll find it worth your time. --editor

### Upcoming Shows

October 25 – 27

Gem & Mineral Society of Franklin

Franklin, NC

November 8 – 10

Kingsport Gem & Mineral Society

Gray, TN

November 21 – 24

Georgia Mineral Society

Cartersville, GA

November 22 – 24

Cobb County Gem & Mineral Society

Marietta, GA

November 22 – 24

Columbia Gem & Mineral Society

Columbia, SC

Source: [www.the-vug.com/vug/vugshows.html](http://www.the-vug.com/vug/vugshows.html)

# Meeting Minutes – September 2013 – by Secretary

The meeting was called to order by club President, Jeff DeRoche, at 2:10 PM. There were 23 members in attendance. Jeff welcomed our newest members, Dr. Barwood from Troy and the Whittaker family from Ozark, though neither had been able to make it to the meeting. He also recognized all of our September birthdays.

**CORRESPONDENCE:** The club received several pieces of correspondence including a brochure about UV lights, an announcement for the 2014 Jasper/Agate calendars, and a letter from Landmark Park thanking the club for the “Science on Saturdays” program presented by Arnie & JoAn Lambert, Jane & Elliott Whitton, and Anne Trice. We also received the usual newsletters from other clubs.

**OLD BUSINESS:** The May minutes were approved without changes. Diane Rodenhizer presented the treasury report and JoAn gave a medical update of some of our ailing club members. We are all thinking about you folks and wishing you speedy recoveries.

**NEW BUSINESS:** Arnie gave a brief update on show-related activities. He, Jeff & Gary Shirah went to Westgate Park to request firm dates for the show each year to help us organize our advertising, planning and vendor recruitment. The folks at Westgate said “no, that is not something we do”. Therefore, we are going to explore alternative venues so we can lock in our dates.

Arnie brought some rock-related activity books that we might be able to distribute to kids who come to our show next year. Arnie & JoAn will be doing another class at the Westwood Presbyterian Church on November 12<sup>th</sup>. Their mini gem & mineral museum is also going to be featured in *Wiregrass Living Magazine* later this year.

Ken Wilson is stepping down as Field Trip Chair so we will need to elect a new one. Until officer election time, it was suggested that we all begin to compile research material on places to dig. Laural Meints might have to step down as Club Hostess, as she may be having surgery in the near future.

Jeff suggested that we begin having officer meetings once or twice a month in order to plan activities, classes and speakers. Jeff also reminded us that we can attend any field trip sponsored by the American Federation of Mineralogical Societies, as we are all members.

Graves Mountain is having a dig on October 4 - 6. Meredith Capshaw said that the Kolomoki Mounds State Park in Blakely, GA, is having a 75<sup>th</sup> anniversary celebration on Saturday, October 12. They have all kinds of activities planned and are looking for vendors.

**SHOW & TELL:** Arnie bought an item on ebay that was marketed as a natural stone. Turns out it was manmade carborundum from China and return shipping would have cost more than the item. It was still pretty, despite not being as advertised. Anne Trice was raiding some of the rock yard stash at Arnie’s house. She found a piece that she planned to turn into a paperweight and sell for \$15. Arnie happened to spot similar stuff on the web before Anne sold it --- it was a chunk of Wingate Pass plume agate from Death Valley worth about \$400.

JoAn brought a beautiful glass necklace that Darlene Zoyka from the Panama City Club made. Meredith brought a flyer from a gold & gem camp in Cleveland, GA. Her cousin’s wife went and had a blast. Jeff brought a fabulous black obsidian knife. It had a tusk handle, and T.J. Moore had knapped the obsidian blade for him.

**PROGRAM:** No program was presented. The group spent quite a bit of time discussing possible classes and trips for the fall and winter. We hung out and socialized while enjoying refreshments graciously provided by Diane Rodenhizer & George White. Door prizes went to Joan Blackwell, Arnie Lambert, Meredith Capshaw and Laural Meints.

Respectfully submitted by Pat Leduc

## Alabama Physiographic Provinces – Part 2

### The Valley and Ridge Province

Northwest of the Piedmont lies the Valley and Ridge Province, an area of low, folded ridges and valleys oriented generally southwest to northeast in direction. This landscape region is drained by the watersheds of the Coosa, Cahaba, and the Black Warrior Rivers. The Alabama Valley and Ridge area is the southernmost portion of a physiographic province that extends to the northeast as far north as southern New England.

The rocks that underlie the Valley and Ridge Province are older sedimentary layers that have been folded upward and downward into a series of narrow ridges separated by more level valley areas. Geologists refer to rock layers that have been folded upward through pressure as **anticlines** and ones that have been folded downward as **synclines**. Many millions of years ago as a portion of Africa was being shoved by geographical forces against North America, a huge wrinkle developed in the Earth's crust here, producing a generally up-folded area, or **anticlinorium**. As the elongated fold was in the process of forming, cracks and faults developed along the peak of the anticline, exposing soft limestones and shales to erosion. Over many millions of years the less resistant rocks eroded away, leaving behind in the center of the fold a valley ("Jones Valley") in which the city of Birmingham sits today.

Millions of years of erosion of the folded rock layers in the Valley and Ridge has exposed rocks that would normally lie deep beneath the surface. A number of industries centered around natural rock materials have arisen in this province. Steel fabricating mills and iron foundries thrived for many decades in both the Birmingham and Gadsden areas. Iron ore, coal, and limestone, the three main ingredients for steelmaking, were found in quantity here, promoting the development of the steel industry.

It has often been said that the Appalachian Mountains begin (or end) in Alabama where the folds of the Valley and Ridge Province plunge beneath younger sedimentary rocks of the Coastal Plain in Tuscaloosa and Bibb Counties. This is true on one level, but not entirely accurate on another. If one were to follow these lines of Appalachian folding underground they would continue to the southwest, then make a northwest turn in the state of Mississippi, where they lie buried under layers of younger rock. These "Appalachian" folds reach the surface again in central Arkansas near Little Rock and continue on into Oklahoma as the Ouachita Mountains. This evidence shows the Appalachians once extended many hundreds of miles farther west than they do today.

Anticlinal and synclinal folding of rock layers is just one of the special geological features of the Valley and Ridge Province. A second characteristic of this part of the state is the presence of **thrust sheets**—places where thick sections of the Earth’s crust have been broken loose, shoved sideways and sometimes stacked upon each other. Enormous geological pressure during the ancient collision with Africa that formed Alabama’s Appalachians caused slabs of what had once been seafloor rock to be driven landward and piled upon other crustal sections. Some of these mobile sheets of rock were hundreds of square miles in area and at least several miles in thickness.

In measuring the thickness of some of these thrust sheets, geologists have found evidence that at least several miles of rock have been eroded from parts of the Valley and Ridge Province since the Appalachians were formed.

The angle of the rocks also suggests how the anticline was formed. It began with an upward folding of over two miles of sedimentary rocks by enormous compression that came from a southeasterly direction. The anticline’s internal structure shows that as the squeeze continued, the southeast part of the fold was broken loose and shoved for some distance up and over the northwestern part. The thickness of the rock layers on either side provides a rough estimate of the minimum amount of rock that has been removed by erosion at the anticline’s center through time. By dating the rock layers on either side of the anticline, geologists calculate the land here began to be deformed about 300 million years ago.

## **The Highland Rim Province**

After the Valley and Ridge Province, the next oldest rocks in the state are found in a landscape region bordering the Tennessee River known as the **Highland Rim**. The rocks underlying this area are primarily limestones and cherts, which have eroded through time to produce a land of low, rounded hills and rich, red farmland. Differences in erosion of the sedimentary rocks of the region is the primary force that has guided the course of the Tennessee River as it makes its way southwestward out of Tennessee, and then abruptly back northwestward to pass out of the state again.

The Highland Rim is sometimes included by geographers in a larger physiographic region of the central U.S., referred to as the **Interior Low Plateaus Province**. The term plateau is used to describe an elevated area of land underlain by rock layers that lie more or less horizontally. These Highland Rim rocks, though nearly level, do have a slight upward tilt to the north in the direction of an uplifted area in middle Tennessee known as the **Nashville Dome**. The upward tilt of these rock layers across North Alabama is slight, averaging only about 50 feet per mile.

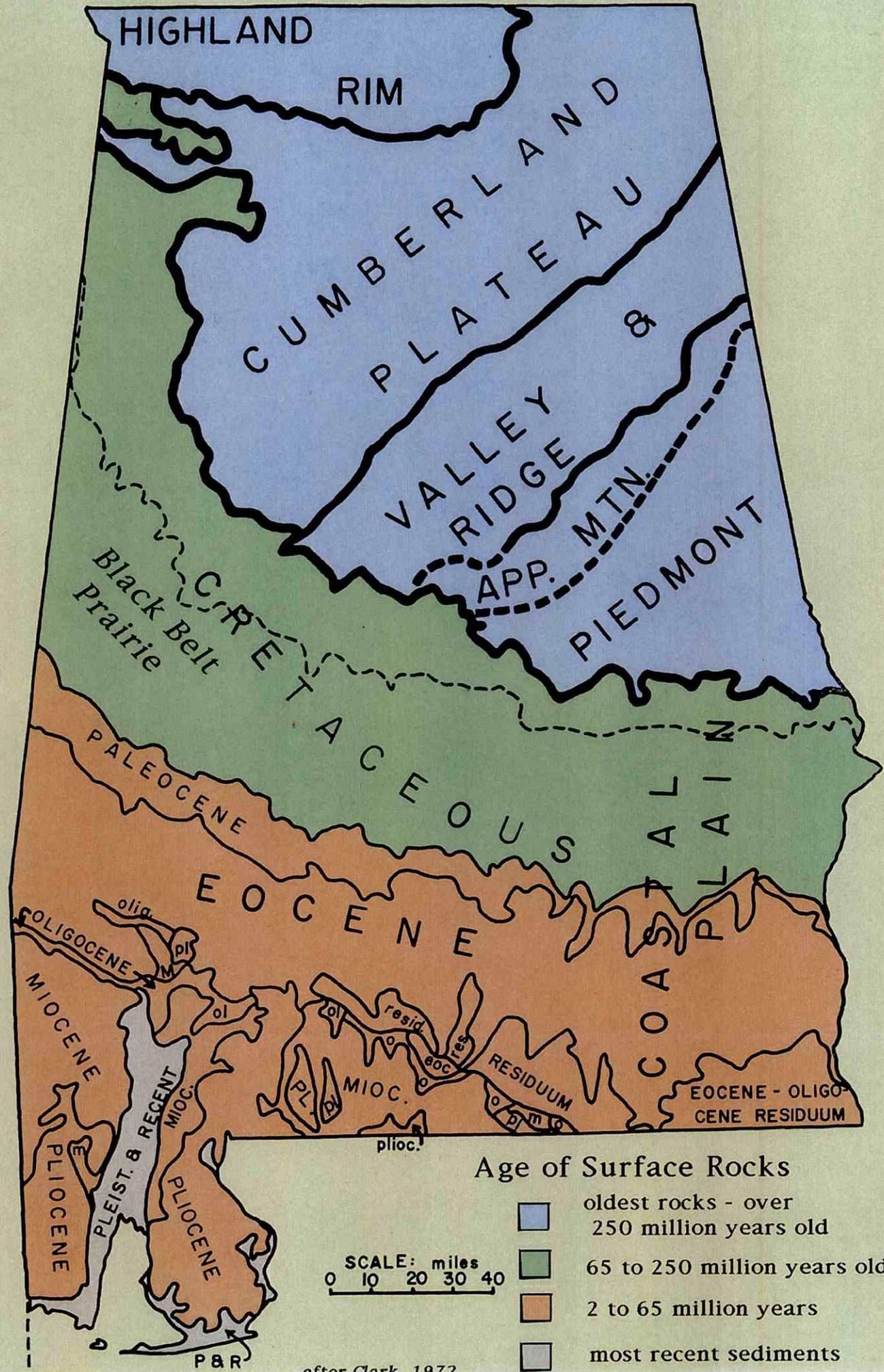
One noticeable feature of many rocks of the Highland Rim is an abundance of fossils of sea creatures. Limestone and other seafloor rocks are widespread here for a good reason. For most of the early part of the Paleozoic Era of Earth's history the continent of **Laurentia** (the name geologists give to ancient North America) was covered by shallow ocean waters.

Highland Rim rocks form a "stairstep" pattern as you travel south from the Tennessee River. South of the river is a range of sandstone-capped hills known as the Little Mountain. North of the river, the Highland Rim is dominated by low, rounded hills and "hollows" formed of beds of deeply weathered chert. Major cities of the Highland Rim Province include Florence, Muscle Shoals, Decatur, and Huntsville, which sits at the eastern edge of the province.

(Note: See following page for pictorial representation of the Age of Surface Rocks throughout Alabama's geographic regions.)

**Source: Reprinted with permission from educator and club member, Elliott A. Whitton, who researched and prepared (July 2013) this condensed version of material presented in Jim Lacefield's publication, Lost Worlds in Alabama Rocks.**

**Editor's Note:** This article has been divided into three parts due to limited newsletter space. This is Part 2. Part 1 appeared in the September 2013 edition of the *Rockhounds Herald* and Part 3 will be printed in the November 2013 edition.



HIGHLAND

RIM

CUMBER PLATEAU

VALLEY RIDGE & APP. MTN.

PIEDMONT

Black Belt Prairie

CRETACEOUS

PALEOCENE

Eocene

COASTAL PLAIN

OLIGOCENE

MIOCENE

PLIOCENE

PLEIST. & RECENT

PLIOCENE

PL. MIOC.

ol. resid.

Eocene - Oligocene Residuum

plioc.

Age of Surface Rocks

- oldest rocks - over 250 million years old
- 65 to 250 million years old
- 2 to 65 million years
- most recent sediments

SCALE: miles  
0 10 20 30 40

after Clark 1972

P&R

# Club Meeting – September 2013

*Photos by Pat and Brooke*



Several folks came out for our first meeting after the summer break.

We discussed lots of business and spent considerable time making plans for the upcoming club year.



# Club Meeting – September 2013

Photos by Pat and Brooke



...and, of course, there were delicious snacks, Show & Tell, and door prizes after the meeting.



# Minerals Named After Women

Almost 100 minerals have been named after women. Some were mineral collectors. Others were scientists. Others were wives of scientists. Listed below are a number of minerals that were named after women.

Use this website (<http://www.webmineral.com/help/NameOrigin.shtml>) and discover more about the women behind these mineral names. Match these names on the left with the accurate fact about the woman after whom the mineral was named on the right.

Rosemaryite	Russian Mineralogist
Lindbergite	The discoverer of the element radium
Sklodowskite	A distinguished mineral collector. Her husband was Eugene.
Caresite	Wife of Professor Peter Wyllie
Sophiite	A French chemist
Carnotite	A Russian volcanologist and mineralogist
Marialite	A United States Geological Survey Scientist
Mcnearite	A mineral collector and dealer from Sudbury, Mass.
Rondorfite	Her full name was Maria Rosa von Rath
Olgite	A mineralogist and crystallographer from Switzerland



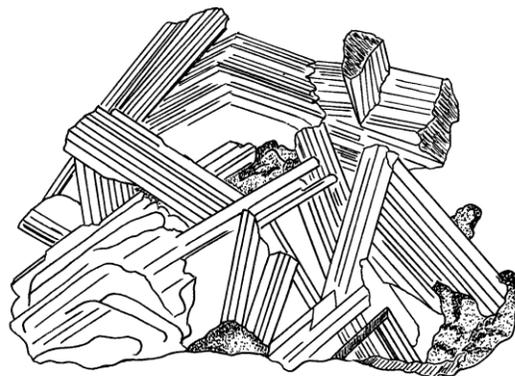
Two minerals were named after Marie Curie-Sklodowska (1867-1934), sklodowskite and curite (named after Marie and her husband, Pierre). The mineral cuprosklodowskite was originally thought to be a copper-bearing version of sklodowskite and so its name bears Marie's name.

Pierre and Marie Curie discovered the element radium.

Left: A Polish stamp with a portrait of Marie Curie-Sklodowska

The deep green mineral called szenicsite was discovered in Chile by Terry and Marissa Szenics. This mineral name was officially approved in 1994. The Szenics are American mineral collectors and mineral dealers. Szenicsite contains the elements copper and molybdenum. Marissa Szenics was born in 1950.

Left: A specimen of Szenicsite.



Fallen Phrase Puzzle 1: An ore is a naturally occurring mineral from which it is profitable to extract elements or compounds, usually metals.

Fallen Phrase Puzzle 2: People in the mining industry say, "If it is not grown, it must be mined."

# Who What Where When Why How

## October Birthdays

**OCT 2 – Pat LeDuc**

**OCT 8 – Maxine Johnson**

**OCT 17 – Gary Meints**

**OCT 19 – Anne Trice**

**OCT 26 – Henry Vaughn**

## Random Rock Facts

A large number of tourmaline stones have one axis that is an opaque black. The other directions may show a lovely green or pink, but if the gem is not cut correctly the color in the finished stone will look terrible, i.e., a muddy brown.

To prevent this, a special "tourmaline cut" has been devised whereby the sides of the offending axis are cut so steep (approximately 70 degrees) that light from it is prevented from reflecting back into the green or pink axis of the gem.

Tourmaline is one of two modern birthstones for October (the other being opal) and is a member of the trigonal crystal system.

Source: <http://www.bwsmigel.info/Lesson4/DE.Optical.Properties.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 – Ken Wilson**  
850-547-9577

**Hospitality Chair – JoAn Lambert**  
334-792-7116

**Club Hostess – Laural Meints**  
334-723-2695

**Website:** [www.wiregrassrockhounds.com](http://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 10<sup>th</sup> 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

**OCT 27 – Ginger & Carlos Merino**

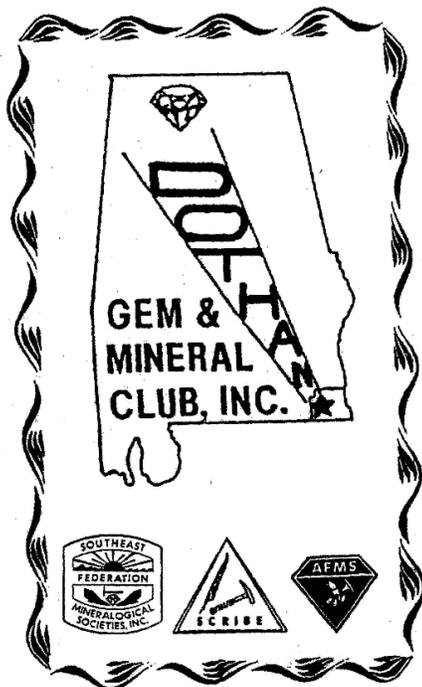
**NOV 24 – Pat LeDuc & Joan Blackwell**

**DEC ?? – Christmas Social**

# ROCKHOUNDS HERALD

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

[www.wiregrassrockhounds.com](http://www.wiregrassrockhounds.com)



## Where you might hear...

Similarly to the way organisms are named in biology, in gemology each distinct type of gem has a species name.

**Species:** A gem species is a mineral that has a definite chemical formula, and has a particular three dimensional structure. In regards to that structure, gems can have a crystalline (highly regular and organized), or amorphous (less organized) structure.

**Variety:** A gem variety is composed of a sub-group within the species that shares distinct and notable characteristics, such as color, degree of transparency, inclusions, or optical phenomena with others of its kind. Not every gem species has multiple varieties, for example, there are no separate varieties within the gem species peridot.

**Groups:** In some cases, a number of closely related mineral species are placed into a larger, more inclusive category, called a mineral group. Examples are the garnet group and the feldspar group.

Source: <http://www.bwsmigel.info/Lessons1and2/DE.Names.Measures.html>

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