MAGS Rockhound News

Volume 61 ◊ Number 07 ◊ July 2015 ◊ A monthly newsletter for and by the members of MAGS

Life of a Mineral Dealer

Jimmy McNeil presents the July program



Jimmy will discuss the different types of dealers and what goes into being a dealer, different types of shows, how he gets materials, what goes into the preparation of materials for sale, and other aspects of being a dealer and doing shows.

Some of you enjoyed the recent rock swap at Jimmy and Hisami's beautiful home, and now you will get the benefit of his experience as a dealer in crystals, fossils, carvings, and other materials. This presentation will tell you some things you don't know—and you will enjoy it.

In this issue

Life of a Mineral				
Dealer	Р. 1			
June Meeting Report	Р. 1			
MAGS And Federation				
Notes	P. 2			
August Wildacres				
Sessions	P. 3			
Jewelry Bench Tips	P. 3			
May Field Trips	P. 4			
Fabulous Tennessee				
Fossils	P. 5			
Found On the Web	P. 5			
May Board Minutes	P. 7			
May Meeting Minutes	P. 7			
July Birthdays	P. 8			
The Sixth Extinction				
Revisited	P. 9			
July Field Trip	P. 9			
Axial Seamount				
Eruption	P. 9			
MAGS At A Glance	P. 10			

JUNE MEETING REPORT

There was great turnout for our June MAGS Membership Meeting. For those of you who were unable to attend, this meeting was different than our usual meeting. Several of our MAGS Members gave short explanations and demonstrations of what they do with their finds after the field trips. Bill Gilbert demonstrated how he makes cabochons, and those who wanted were able to try their hand at it at the

DEBBIE SCHAEFFER

end of the evening. David McAlister taught us how he goes about tumbling rocks. Ron Brister talked about labeling our finds and even gave us a sample page that we could use as an example for labeling our own collections. W. C. McDaniel explained how to clean different crystals. Mildred Schiff talked about wire wrapping, and at the end of the program she demonstrated how to wrap some

Continued, P. 8

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MAGS AND FEDERATION NOTES

President's Message

Your MAGS membership also includes membership in two additional organizations, the American Federation of Mineralogical Societies (AFMS) and the Southeast Federation of Mineralogical Societies (SFMS). In addition you are able to participate in the Dixie Mineral Council, (DMC) field trips:

Continued, P. 3

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.

Preview: The August 14 MAGS Membership Meeting will be the Indoor Picnic. More details in the next issue.

MAGS Website: memphisgeology.org

We aren't kidding when we say this is a newsletter for and by the members of MAGS. If an article has a byline the author is a MAGS Member, unless explicitly stated otherwise (we welcome articles by nonmembers). If there is no byline, the article was written or compiled by the Editor (a MAGS Member). 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.

July DMC Field Trip

WHERE: Little Pine Garnet Mine, Madison County, NC

WHEN: Saturday, July 18, 9:00 am to dusk

COLLECTING: Garnets

INFORMATION: Ken Casebeer, (828) 277-1779 (no calls

after 8:30 pm) or casebeer@law.miami.edu.

Links to Federation News

- AFMS: www.amfed.org/afms_news.htm
- → SFMS: <u>www.amfed.org/sfms/</u>
- → DMC: www.amfed.org/sfms/_dmc/dmc.htm

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

President's Message Continued from P. 2

- 1. The American Federation of Mineralogical Societies (AFMS) was established in 1947 "to promote popular interest and education in the various Earth Sciences, and in particular the subjects of Geology, Mineralogy, Paleontology, Lapidary and other related subjects, and to sponsor and provide means of coordinating the work and efforts of all persons and groups interested therein; to sponsor and encourage the formation and international development of Societies and Regional Federations and by and through such means to strive toward greater international good will and fellowship. The AFMS is composed of the seven similar regional organizations of gem, mineral, and lapidary societies." Their web site is www.amfed.org/ations. This a good information source if you are planning a trip
- 2. The Southeast Federation of Mineralogical Societies **(SFMS)** is one of those regional organizations. "The Southeast Federation of Mineralogical Societies, Inc. was organized in 1976 to bring about a closer association of Clubs and Societies devoted to the study of Earth Sciences and the practice of Lapidary Arts and Crafts in the Southeastern part of the United States. The Southeast Federation includes approximately 80+ clubs and societies mostly in the region east of the Mississippi River and south of a line following

the northern boarders of Tennessee and North Carolina." Their web site is www.amfed.org/sfms/.

3. The Dixie Mineral Council (DMC) is a field trip sharing program provided by the SFMS. Each month a different participating club hosts a field trip from all clubs who belong to the DMC. MAGS was a charter member and hosted our first trip, to Coon Creek, in September of 1999. We will host our next trip in October of 2016. Their web site is www.amfed.org/sfms/ dmc/dixie-frame-main.htm.

W. C. McDaniel

August Wildacres Session

The August and September Wildacres sessions are not far away and classes are beginning to fill. If you're interested in attending one or more of these classes please go to the website at www.sfmsworkshops.com.

Here is a list of the classes that still have openings:

- Chain Maille—Beginning to Intermediate— Instructor: Roy Deere
- Flint Knapping— Instructor: Michael Miller
- Gem ID— Instructor: Teresa Polly
- Meteorite Symposium— No Instructor
- Silver Filigree—Instructor: Shannon Stafford
- Stakes & Hammers— Instructor: Annette Gibney

• Stone Carving—Instructors: Tom & Kay Benham

For details on the classes and other information, see the website or contact the following:

Wildacres Director—Lisa Roberts (423) 494-7096 (678) 479-4177 wadirector1314@yahoo.com

Wildacres Registrar—Paula Griffin (865) 406-8802 (865) 248-8393 waregistrar2015@gmail.com

Jewelry Bench Tips by Brad Smith

SOLDERING PRONGS

I often use prongs to hold an irregular cab or other object on rings and pendants. But prongs can be a little tricky to solder. You have to find some way to hold them all upright while soldering, and the simple butt joint that looks strong sometimes breaks when you start to bend the prong over the stone. There's nothing worse than having a prong break off when you're setting the stone *#~*!

I solved both problems with one little trick. It holds the prongs in position while soldering and it gives you a stronger joint at the same time.

Locate and center punch the position for each prong. Then drill holes a little smaller than your prong wire. Sand a small taper on the ends of your prong wires and stand them up in the holes. The wires support themselves, soldering is easy, and the joint is stronger because of the increased soldering area.

Continued, P. 5

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

May Field Trips—Mostly May 30 DMC Trip

Background: Cumberland Furnace

Located in northern Dickson County is the historic village of Cumberland Furnace, the site of the first ironworks in the region which later became Middle Tennessee. The village is the oldest community south of the Cumberland River between Nashville and Clarksville.

General James Robertson, like other pioneer surveyors, soon discovered that the Western Highland Rim contained abundant iron ore deposits. In 1793 Robertson and William Sheppard purchased 640 acres on the west branch of what is now called Furnace Creek and erected a furnace and a forge; the furnace went to blast in 1796.

By 1812 Montgomery Bell, then the owner, had a contract to furnish the national government with cannon shot, gunpowder, and whiskey. During the War of 1812 Bell became the chief supplier of heavy ammunition for both the Navy and General Andrew Jackson's army.

The furnace operated, with minor interruptions and under several owners, until 1938. In October 1943 a Chattanooga scrap dealer purchased the property and dismantled the furnace for the wartime scrap metal drive.

In 1988 the village of Cumberland Furnace, with over thirty buildings and sites associated with the iron industry, was listed as a historic district on the National Register of Historic Places.

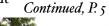
Field Trip Report

Charles Hill

Hi, everyone. It is time for another field trip report. We had two trips planed for May. The first was to Canal Creek in Southaven/Olive Branch. The other was a Dixie Mineral Council (DMC) trip to Middle Tennessee. The one to Canal Creek was a washout. I got up early because of the rain and sped down there, only to find that the creek was a raging torrent. Therefore, I got in contact with those people on the signup sheet and called the trip off. I will reschedule that one for July.

However, I want to tell everyone reading this that we just had an amazing field trip. As you know, the DMC trip to Cumberland Furnace was on the 30th of May to collect Civil War era slag. Before this trip, Carol and Matt Lybanon came to me and asked about staying in Dickson on Friday the 29th. Dickson was on the way, and we wanted to see if the Dickson coral site was still available. I had never been to this site and did want to know where it is.

We stayed at the Rodeway Inn in Dickson. Emily and I arrived before Matt and Carol, so I walked our dog Genie on a road beside the motel. I didn't go a hundred feet before I started finding coral. The coral and other treasures are abundant, and the area is open and expansive. I kept almost everything I found, and my truck is not happy with me. You can drive up to this site, but





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Field Trip Report not onto it; so Continued from P.4 Matt and I made many trips back to our vehicles. By the

end of that day we were happy and satisfied.

With Matthew and Carol leading the way, we traveled from Dickson to Cumberland Furnace. That trip took less than an hour. We met with our host for the pretrip meeting and than proceeded to a nearby creek. In places the slag was abundant and some of it had good color. It did rain a little. but fun was had by all. (A bad day creeking is better than a good day anywhere else!) We came home with a bucket of colorful slag and new memories to reflect on. For those who came, thank you. These trips are for you. For the rest, you should have been there!

Charles



Fabulous Tennessee Fossils

Dr. Michael A. Gibson, University of Tennessee at Martin

Lithostrotionella & Acrocyathus Corals

The motivation for this FTF article comes from our intrepid editor Matthew Lybanon, who wanted to know more about corals (Figure 1) that he recently collected near Dickson, Tennessee, during the DMC field trip to Cumberland Furnace, known for its slag glass. Silcified coral colonies like Matthew found, which he tentatively identified in his e-mail to me as Lithostrotionella, are very common in limestone deposits within the

Kingdom Animalia Phylum Cnidaria Class Anthozoa Order Rugosa Family Lithostrontionidae & Acrocyathidae Genus Lithostrotion

Lithostrotionella Acrocyathus Species variable

Eastern and Western Highland Rims of Tennessee and sometimes are found in streambeds in the Central Basin where they have been carried down-drainage by erosion. What most collectors and museums label as

Lithostrotionella was a massive colonial form that built extensive reef systems during the Mississippian Period (359-323 million years ago) during Tennessee's 3rd global epieric sea incursion of the Paleozoic Era. Students often bring me these corals, and they can get Continued, P. 6

Jewelry Bench Tips Continued from P. 3

TWISTING WIRE

Twisting wire can be done with an old hand drill but goes much faster with a power tool. My preference is to use a screw gun, although a Foredom should do well.



Just make a little hook out of coat hanger wire (or use a screw-in cup hook) and chuck it up in your screw gun. Grip the free ends of the wire in a vise and slip the looped end onto your hook. Keep a little tension on the wires as you twist.

Note that a power drill is too fast a tool for this unless you have one with variable speed.

Get all 101 of Brad's bench tips in "Bench Tips for Jewelry Making" on Amazon.

Found On the Web

Remote Sensing Meets Paleontology: Following the catastrophic Memorial Day flooding on the Blanco River in Blanco, Comal, and Hays Counties, Texas, the USGS flew the length of the river taking hundreds of handheld

geo-located oblique photographs along the way. They tell the tale of historic destruction caused by the 500+ year flood event. They also revealed tracks left around 110 million years ago.

Analysts noted a series of linear indentations in limestone bedrock out of alignment with the stream channel. It was apparent that these were sauropod (fourlegged) dinosaur tracks which, although visible in other imagery, were much clearer and more readily identifiable in the USGS postflood photographs. More details on the website listed below:

www.amaterra.com/#!Aerial-Phot ographs-of-Historic-Texas-Floods -Reveal-Dinosaur-Tracks-on-Bla nco-River/c16fg/557f9c000cf298 dc5b9a55b8

PAGE 5 JULY 2015

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

Fabulous Tennessee Fossils quite large.
Continued from P. 5 The largest single

coral head I have seen was the size of an entire pickup truck bed!

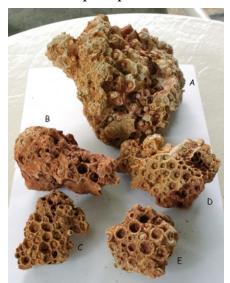


Figure 1. Silicified Mississippian-age rugose corals collected by Matthew Lybanon (photo by Lybanon) most likely belonging to the genus Acrocyathus, which replaces Lithostrotionella in older literature.

Matthew asked for my opinion because he fell into the same "name game trap" that most of us do with identifying corals and it confused him. If you look more closely at Matthew's corals in Figure 1, you will note that the individual coral openings, called corallites, vary in outline shape with some being rounded and others being polygonal. Additionally, some corallite walls touch, others do not. Matthew actually has specimens from two different, but closely related, genera of rugosan coral. But I can't tell him with certainty which ones he has myself—it confused me too!

Until recently the literature consulted by nearly all amateur

collectors and most professionals would identify the corals Matthew found as belonging to the colonial rugosan coral genus *Lithostrotionella*, which is also often confused with another similar genus, *Lithostrotion*. *Lithostrotionella* was formally revised in 1983 by U.S. Geological Survey paleontologist William Sando

(pubs.usgs.gov/pp/1247/report.pdf) who revamped the descriptions and reassigned many of the species in Lithostrotionella to another genus, Acrocyathus, and revised several other coral genera. In his work, Sando looked at specimens and the published pictures and descriptions everyone used for identification up to that time. His technical document is a difficult read containing reference to many of the rules of taxonomy that often reads like a legal document. Also, Sando noted that there were many published images or references that were too poor or incomplete to include in his revision. The result is a partial revision in 1983 and a long literature trail of confusing and conflicting names and fossil descriptions. Compounding identification is the fact that to properly identify coral genera and species, thin-section microscope slides of the coral must be made in numerous orientations and positions. Consequently for non-experts, most corals are often "loosely" identified based upon a few features related to the shape of the corallite (individual) and how these individuals are attached to one another in the colony (corallum), and then clumped into a few "popular" genera names. This is much like using the name "Coke" in the South.

You could mean Coca-Cola®, or you could mean Pepsi, Royal Crown, etc. which are all of similar color.

So, which corals did Matthew find; how should he label them in his collection? Look again at Figure I and notice that specimens A, C, and D all have individual corallites that are polygonal, or honeycomb-shaped, with the walls of adjacent corallites touching one another (this pattern is called "ceroid"), but specimens B and E have rounded corallites that do not touch (called "fasciculate"). This looks like a good basic feature to separate them in to separate genera, right? Even though these seem like very large and fundamental morphology differences, Sando placed them within the same genus. According to Sando's revision, all of Matthew's corals are the same genus, Acrocyathus. The old name for this genus, which occurs in nearly all print publications prior to the 2000's, and which is what is generally available to most collectors, would be Lithostrotionella. Lithostrotion is also a genus that many of our Tennessee specimens have been assigned to, especially in very old literature, but this genus is "outdated" as well. Thankfully, the Internet is easier to update, so Acrocyathus appears on many sites. Confused? Join the fossil collectors club! Even the experts remain uncertain, unless they have all of the thin-sections to study, or are coral experts. It could be worse though. Lithostrotionella is listed as the Official State Fossil of West Virginia, or is it really *Lithostro*tion? Or is it really Acrocyathus? Or one Continued, P. 7

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

Fabulous Tennessee Fossils of the Continued from P. 6 other names

Sando proposed? A rose by any other name is still a rose, right?

May Board Minutes

Mike Baldwin

Called to order at 6:33 pm. Present: W. C. McDaniel, Mike Baldwin, Paul Sides, Marc Mueller, Kim Hill, Matthew Lybanon, Carol Lybanon, Bonnie Cooper, Bob Cooper, and James Butchko.

Secretary: Minutes were distributed electronically for review. Question about May field trip location. Mike will be out of town for the May Membership Meeting. Carol will take minutes.

Treasurer: Bonnie distributed a summary of April transactions and the March bank statement. Motion to approve subject to audit carried. W. C. and Bonnie will consolidate CDs into one or two. Amber Dunn's brother was recently killed in motorcycle accident. W. C. asked if the club should make a donation. James made a motion for MAGS to donate \$100. Motion carried.

Membership: Bob reported that MAGS gained 17 new members and 9 renews at the show. 2 additional renews have been received since the April meeting. New member packets have been sent via email or mail. All monies have been deposited. One individual paid for 2 years.

Field Trips: Charles Hill was not present tonight. W. C. stated that the schedule is full. Alan Parks has proposed a joint Daughters of the American Revolution/MAGS field trip to Chucalissa. May 9, 20-Mile Creek field trip has been moved to August 15. MAGS will participate with DMC to visit Cumberland Furnace on May 30. May 16 field trip will be to Canal Creek in Southaven, MS. June 20 field

trip to Turkey Creek, MS to collect marcasite. July 11 field trip will be to Crow Creek, AR.

Adult Programs: Carol reported that everything is on schedule. Dr. Patterson is scheduled for May but she hasn't been able to get in touch with him. She has a video ready if he doesn't show. June program will be a hands-on, craft-type project. Displays will be part of the program. Carol will have all the materials [glue, magnets, etc.] ready for the meeting even though she may not be there. July program will be presented by Jimmy McNeil. Lori Carter presents in September. Programs set for the remainder of the year.

Youth Programs: Herb Nicholson in May; Mike in June; Shield-making in July. Assistant Junior Program director position is still vacant. Let W. C. know if anyone has an idea. Carol asked Jim to get club members to volunteer to present programs. Maybe Cathy Baker to do presentation and then have kids make statues. Dee Dee said she would do one on crystal power.

Web: No report.

Newsletter: Jim mentioned that there will be a show committee on May 11 at the Agricenter. He will confirm that the board room is available. Matthew will add show committee date to the newsletter. Deadlines are very important. 15th of the month is the deadline and when articles come in after that it creates layout problems. In May, a new book review section will feature books in the MAGS library.

Historian: May 9, 11:00-3:00 at the home of Jimmy and Hisami McNeil (annual spring rock swap/potluck). This is a good time for new members to come out.

Show: Jim Butchko reported that the May 11 show committee meeting will be an assessment of 2015 and preplanning for 2016. 2015 Income was 5.5%

higher than 2014. 2015 appears to be very well attended and profitable. Matthew recapped revenue income and expenses. He estimated our profit to be around \$3000 more than last year. Lots of magazines sold at the show. Paul took the remainder of the unsold magazines. Final results of the 2015 show will be available by the end of May or the first of June.

New: Dinosaur speakers are needed at Shelby Farms. W. C. passed around a signup list for May 8, May 14, and June 5. Shelby Farms also needs nature speakers in May and June. W. C. received letter from the Southeast Federation to nominate Toni Garland from Knoxville for the Tennessee State Director of SFMS. Motion carried to accept her nomination.

A discussion of fluorescent minerals and the fluorescent show display followed. May 15 is tax-due date. Bob and Bonnie will complete and submit. Adjourned at 7:34 pm.

May Meeting Minutes

Carol Lybanon for Mike Baldwin
Called to order at 7:30 pm. 43 Members and 10 visitors were present.

BUSINESS: Bob Cooper introduced the visitors, and said that one family joined tonight. The rock swap will be held tomorrow, 11:00-3:00, at the home of Jimmy and Hisami McNeil. It will be pot luck. The club will provide the plates, napkins, utensils, and drinks. Please bring a dish to share. Carol Lybanon announced that the June program will be a little different, with several of our own Members talking about things you can do with your field trip finds. Charles Hill said there will be two field trips in May, one at Canal Creek (limited participants) on May 16, and the other on May 30; we will join a DMC field trip to Cumberland Furnace. W. C. McDaniel reported on the MAGS Show. It was a good show, and about 2,300 Continued, P. 8

MAGS Rockhound News \(\Delta \) A monthly newsletter for and by the members of MAGS

June Meeting Report specimens. Small specimens were available for those who wanted to make refrigerator Continued from P. 1 magnets to take home. I think everyone who attended enjoyed this fun and informative evening. It was a huge success!



May Meeting Minutes people attended. If any Continued from P. 7 Members have

comments on the Show, please give them to a Show Committee member. Matthew Lybanon said that he had the count of Member Show tickets. Please see him after the meeting and he will let you know if you owe money for tickets. Idajean Jordan gave a special thanks to Debbie Schaeffer for the hard work she did at the Show by providing coffee and other needs for hospitality. Another thank you went out to our Juniors; the RockZone would not have been as successful without their help.

DISPLAYS: There were five adult displays.

PROGRAM: The meeting was adjourned and turned over to the program at 8:00 pm. Carol Lybanon introduced Gary Patterson of the University of Memphis CERI, who gave a very interesting program about earthquakes along the New Madrid Fault.

July Birthdays



- Patrick Cooper Ι
- Bobbi Heger 2
- Wayne Williams 3
- Susan Goossens 5 Clay Crumpton
- 6 Enrique Gonzalez
- 8 Jorge Leal
 - David Day
- Brenda Scafidi 9
- Jack Culp 10

Nannett McDougal-Dykes

- Steve McMann
- Rikki Boyce
- J. D. Little 13

11

12

14

- Sue Nicholson
- Patrick Dean 18
- Susan Pere 19
- 20 Connie Anderson
- Erin Leal 21
 - Susan Vaughn
 - Angelina Wang
- James Johnson 22 Dominik Kuc
- 25 Jenny Vaughn
- **Konrad Armstrong** 26
- Devin George
- Laurence Nuelle 29
- Olivia Reed 30

PAGE 8 JULY 2015

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

The Sixth Extinction Revisited

Paleontologists characterize mass extinctions as times when the Earth loses more than three-quarters of its species in a geologically short time, as has happened only five times in the past 540 million years or so. The May issue of MAGS Rockhound News included a review of a book in the MAGS library, Elizabeth Kolbert's The Sixth Extinction, that asserts we are now in the middle of a sixth mass extinction.

This assertion is supported by recent work at Stanford University (news.stanford.edu/news/2015/ju ne/mass-extinction-ehrlich-0619 15.html). Employing results from a 2011 study published in *Nature*, the group used highly conservative estimates to prove that species are disappearing faster than at any time since the dinosaurs' demise, and likely due to human activity.

The research concludes that, over the last century, species of vertebrates are dying out up to 114 times faster than they would have without human activity. A human population growing in numbers, per capita consumption, and economic inequity has altered or destroyed natural habitats. The long list of impacts includes:

- ★ Land clearing for farming, logging and settlement
- ★ Introduction of invasive species
- ★ Carbon emissions that drive climate change and ocean acidification
- ★ Toxins that alter and poison ecosystems

Now, the specter of extinction hangs over about 41% of all amphibian species and 26% of all mammals, according to the International Union for Conservation of Nature, which maintains an authoritative list of threatened and extinct species.

Despite the gloomy outlook, there is a meaningful way forward, according to researcher Paul Ehrlich and his colleagues. "Avoiding a true sixth mass extinction will require rapid, greatly intensified efforts to conserve already threatened species, and to alleviate pressures on their populations—notably habitat loss, over-exploitation for economic gain and climate change," the study's authors write.

Ref: Has the Earth's sixth mass extinction already arrived? Anthony D. Barnosky, et al. *Nature* 471, 51–57 (03 March 2011) doi:10.1038/nature09678 Published online 02 March 2011.

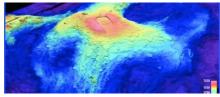
July Field Trip

Contact Field Trip Leader Charles Hill [(901) 626-4232 or hunter3006@aol.com] for details of the July 11 field trip to Crow Creek in Arkansas. You will be looking for agate, petrified wood, jasper, and banded chert. The best feature is a fossilized oyster bed.

Axial Seamount Eruption

Axial Seamount, an active underwater volcano located about 300 miles off the coast of Oregon and Washington, appears to be erupting—after two scientists had forecast that such an event would take place there in 2015. Geologists Bill Chadwick of Oregon State University and Scott Nooner

of the University of North Carolina Wilmington made their forecast last September during a public lecture.



They based their forecast on previous research, which showed how the volcano inflates and deflates in a repeatable pattern as it responds to magma being fed into the seamount. In late April the region experienced thousands of tiny earthquakes—a sign that magma is moving toward the surface—and the seafloor dropped by 2.4 m, also a sign of magma being withdrawn from a reservoir beneath the summit.

"It isn't clear yet whether the earthquakes and deflation at Axial are related to a full-blown eruption, or if it is only a large intrusion of magma that hasn't quite reached the surface," Chadwick said in an interview. "There are some hints that lava did erupt, but we may not know for sure until we can get out there with a ship." The researchers say such an eruption is not a threat to coastal residents. The earthquakes at Axial Seamount are small and the seafloor movements gradual and thus cannot cause a tsunami.

Axial Seamount provides scientists with an ideal laboratory, not only because of its close proximity to the Northwest coast, but for its unique structure. Chadwick and Nooner expect that Axial can give them insights into how volcano magma systems work, and how eruptions might be predicted.

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MAGS At A Glance

July 2015

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
28	29	30	1	2	3	4
				Board Meeting, 6:30 pm, St. Francis Hospital		
5	6	7	8	9	10	11
					Membership Meeting, 7:30 pm, "Life of a Mineral Dealer"	MAGS Field Trip, Crow Creek
12	13	14	15	16	17	18
			Newsletter deadline			Archaeology Group, 10 am, Chucalissa/ DMC Field Trip, Little Pine Garnet Mine
19	20	21	22	23	24	25
26	27	28	29	30	31	1

Memphis Archaeological and Geological Society
2019 Littlemore Drive
Memphis, TN 38016