The BACKBENDER'S GAZETTE

The Newsletter of the
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President's Letter

by Steve Blyskal

Fall seems to be coming to Texas, just in time this year. I told Sigrid I credit her with the weather change, since it occurred the morning after her plane landed in Houston from Calgary. Now it is actually raining across much of the Texas Gulf Coast as I write this letter. Never thought I'd be glad to actually hear thunder rolling across the prairie.

This month the annual show will be the main focus of the club as we work to put on the best one we can to raise money for our clubhouse and club activities for the coming year. I urge all the members to support your club by volunteering to take one or more shifts at the show selling tickets, working the info booth, helping in hospitality or in security or in one of several other important jobs. Take flyers and post them at your place of employment. Please come out and support the dedicated Show Committee members who have been working all year to plan the show and are there all four days to make sure it all runs smoothly. Tickets have been mailed out to all members by now. Please consider (if finances permit) buying the tickets as a donation to the club then giving them to your family and friends. I have done this for many years and it is a good feeling passing out tickets to people who might pass on the show otherwise, but who really enjoy it.

Continued on page 4

Upcoming Programs

October 25--Farrar Stockton: He will take HG&MS to New Zealand for our October program. Farrar visited these far away islands in December 2009. As a country settled first by Polynesians and then by people from all over the world, New Zealand has many stories to tell. It has different landscapes, environments, and ecosystems which give visitors unique opportunities for photography. Farrar will take us from Auckland on the north island to Wellington and Christchurch

Continued on page 5

Contents

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Purpose of HGMS

The objectives of this Society are to promote the advancement of the knowledge and practice of the arts and sciences associated with the collecting of rocks, minerals, fossils, artifacts, and their identification and classification; the general lapidary art; the collecting and identification of gemstones; the designing and execution of jewelry or metalcraft; and to provide the opportunity to obtain, exchange, and exhibit specimens and rough or finished materials.

Membership dues are $40 for an adult membership, $60 for a couple, $75 for a family (including all children aged 5-18), $25 for a youth membership (ages 5-18), and $500 for an adult life membership. Advertising rates: $70 for 2 months, ¼ page; $150 for 6 months, ¼ page.

MEMBER: American Federation of Mineralogical Societies & South Central Federation of Mineral Societies.

All meetings are held at the Clubhouse which is located at 10805 Brooklet near the intersection of Highway 59 (Southwest Freeway) and Sam Houston Parkway (Beltway 8). See the calendar inside the back page for when the different Sections meet. The General Meeting is the fourth Tuesday of each month at 7:30. The HGMS Web site address is **http://www.hgms.org**.

President's Message *continued from page 1*

Those of you who are active in one of our eight sections are urged to support their section booths and displays, particularly with staffing during the show. As I have done for more than 25 years, I'll be running the Swap Area, where people can find unusual mineral specimens, fossils, or cutting rough at good prices. We'll have even more swap dollars printed this year. See the longer article on the Swap Area in this issue of the BBG for further information about the Swap Area. I look forward to seeing many of you at the show. Please come by and introduce yourself when you are in the Swap Area. One of the best parts of any show is meeting and talking to fellow collectors and friends. After the show I look forward to seeing your finds at the various Section meetings and the General Meetings.

I have been back from Calgary (Alberta, Canada) for over a week now and feel just about adjusted to Houston weather again. It was a great trip, and I brought back lots of memories and many photos. Sigrid and I took Canada Highway 1 into Banff National Park one weekend, going over Kicking Horse Pass to Yoho National Park and down Kicking Horse gorge to Golden, where the Columbia River flows north. We saw LOTS of rocks, turquoise colored rivers and lakes, waterfalls, and snow falling on the mountains. The aspens (sorry—Larches in Canada) were starting to turn, and the hills held spots of yellow amidst the spruce and firs. The tree line is much lower this far north, so there was lots of bare rock, some of which still had snow patches from last winter's record snowpack. One of the highlights of the weekend was seeing the Burgess Shale exhibits at the Field, BC visitor center and seeing the outcrop and quarry (when the snow permitted) where the fossils are found. The second weekend we drove the length of the Kananaskis Valley one day, marveling at the many rock features, groves of yellow larches and interesting rock outcrops along the roads. I highly recommend this drive, as it can be done at a slower pace than the more crowded National Parks and the towns of Canmore and Banff with their traffic jams. The second day we drove east across endless fields of ripened or harvested wheat and alfalfa, dotted with pothole lakes full of ducks and geese, to the badlands around Drumheller, where the Royal Tyrell Museum of Paleontology sits in the middle of some of the richest dinosaur-laden strata in the world. A world class museum, it covers all eras from the Cambrian Burgess Shale animals to the mastodons and other large mammals that roamed Alberta in the Ice Ages. The highlights for everyone though are the dinosaur exhibits, followed closely by the displays of huge marine reptiles that populated the shallow Cretaceous seas while the dinosaurs ruled the land. After the museum we explored the badlands in Midland Provincial Park and at the Hoodoos, about 10 km south. At both places we found a geological mystery—boulders and cobbles of rounded gneiss, granite, schist, and quartzite exposed in the eroded soft shales, clays, and sandstones from the age of the dinosaurs. See me if you want to know my opinion on how PreCambrian rocks from the Canadian Shield ended up so far from home.

Based on the photos I took and the information we obtained, Sigrid and I should be able to give several talks next year which may give you the urge to head north of the border, even if you have to leave your rock pick and shovels behind.

Calgary is a beautiful city with lots of parks, an attractive downtown, quaint neighborhoods and suburbs sprawling over the countryside just like in Houston. The cottonwoods and willows were turning while we there, coloring the city yellow and gold. The people are generally friendly, young and fit, with fast walkers and cyclists everywhere. There is good public transport and good roads. It's only an hour to the Rockies and an hour and a half to the badlands.

See you at the Show. Keep an eye out for our billboards!

***Upcoming Programs**--Continued from page 1*

November 22--To be announced

Old Geezer—More On Smithville

by John Emerson
Member of the Houston Gem & Mineral Society

As mentioned before, one set of my grandparents (Marrs) and great-grandparents (Dean), both on my mother's side, lived in Smithville, Texas, a very small town on the Colorado River about 10 miles east of Bastrop (now famous for forest fires), which is about 40 miles east of Austin. They were the owners of Marrs Funeral Home and Marrs and Dean Florist Shop in one building in town. (Of note: This being in the 1930s, they only served "whites." The "colored" had to go to Bastrop for services). I used to visit them in the summers when I was about 6 to 8 years old (1934/36).

The main source of jobs, besides farms, was the railroad switch yard. At that time Smithville had one funeral home, one florist shop, one movie house (I remember some silent movies, as well as "talkies"and the film ads for local shops were typed on colored background, accompanied by loud music), one two-story hotel, one drug store, two restaurants (one in the hotel), two schools (one minimal for blacks), the American Legion Hall (across the River), and at least four churches. Grandmother made sure I attended Sunday school while I visited her.

The Funeral Home and Florist Shop building was a remodeled old gas station and garage. It included the office, flower shop, mortuary, display room for caskets, chapel for services, garage for the ambulance/hearse, and living quarters for the family, all in one large, single story building. That it had been a gas station was obvious since they left its one gasoline pump in front of the building. I used to "pump gas" with its hand lever. Of course there was no gas—just my "make believe."

I bring Smithville up again because in the Houston Chronicle of June 21, 2011, there was a great, full page and a half, write up on the modern movies that are set in Smithville. I won't name each one - just to say there were ten (10) at that time, starting with "Hope Floats" in 1998 and ending, for now, with "Teller and the Truth" to be released in 2012.

The lead headline was "SMITHVILLE GOES HOLLYWOOD. The quaint town makes magic with its beauty and hospitality." That is not what I remember! Of course, when I was visiting there, it was at the height of the "Great Depression." I plan to bring the article to the next Paleo and General meetings.

One of my "duties" while visiting Smithville was to use floral wire to stiffen flower stems so they could be fastened to wreaths for funerals. It was a small thing, but it made me feel important and useful.

My friend Johnny Carter and I would take a lunch—packed by his mother—and walk the RR tracks to cross an RR bridge over a creek west of town and walk up the creek to a "cave" to play make believe. The "cave" was a shallow indentation in the sandstone wall of the creek. By "scrunching up" we could both fit in, hide, eat lunch, and dream up wild stories to tell each other.

As mentioned before, Johnny was the boy born in Smithville, while I was born the same day in Lockhart - about 30 miles away. Both named John, both born same hour, same day, and close friends who argued about who was older by minutes.

A sad note: My grandfather John Fleming Marrs, Mortician and Funeral Director, had a routine that every evening he walked from the Funeral Home about a block and crossed two streets to the hotel restaurant for a glass of beer. One evening he was struck and killed by a truck on the way to get the beer (they told me it was "on the way"—not drunk coming back?). My grandmother, Della Dean Marrs, kept the business going for quite a few years after that by hiring a young mortician just out of school to take over the Mortician roll while she performed as Funeral Director.

A note on grandmother: One "cool of the evening" (no air conditioning) we were all sitting outside in front of the building when a man walked by. I started to say something to her starting with "Grandmother,.....". She cut me off and said, "Don't call me that in front of people. Call me Aunt Della!" Was she vain?

Mineral Section Programs

by Paul Brandes

Below is the schedule of events for the Mineral Section.

November 2: Final preparations for the Show

November 16: "Newfoundland's Geologic Paradise – Minerals, Rocks, Fossils, Icebergs, Whales, and Vikings, oh my," to be presented by Tricia Rittaler

December 2: To be announced

December 16: No meeting. See you next year!

Some Interesting Paleozoic Sharks of Texas

by Albert J. Robb III
Member of the Houston Gem & Mineral Society

Introduction

The first cartilaginous fish evolved in the early Paleozoic, and by the end of that era this group of fishes, known as sharks, exhibited fascinating diversity in size, shape, and lifestyle (Romer, 1966; Zangerl, 1981; Carroll, 1988). Fossil denticles (placoid scales) that may belong to early sharks (Fig. 1A) have been reported from the fresh-water facies of the Late Ordovician (Caradocian; 448-458 million years before present) Harding Sandstone of south-central Colorado (Graffin, 1992; Sansom, et. al., 1996). They closely resemble thelodont denticles which is consistent with the theory of numerous researchers of a fresh or brackish-water agnathan ancestry for the sharks (Märss, et. al., 2007). The earliest placoid scales of undisputed shark origin (*Elegestolepis grossi*; Fig. 1B) are known from the Upper Silurian (Llandovery; 428-438 mybp) of the Tuwa in central Asia (Karatajute-Talimaa, 1973). Relatively complete sharks, however, are not known until the Late Devonian when such species as *Cladoselache fyleri*, a fish easily recognizable as a shark (Fig. 1C), is known from the Cleveland Shale of Ohio (Zangerl, 1981).

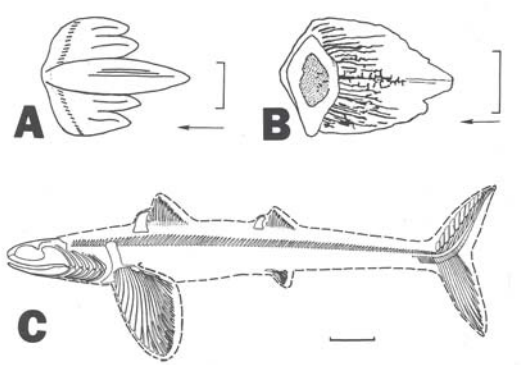

Figure 1. Early Paleozoic shark scales and body reconstruction. A. Denticle (placoid scale) in dorsal view from late Ordovician Harding Sandstone of Colorado (drawn from microscope slide by author). B. Placoid scale in ventral view of *Elegestolepis grossi* from the Upper Silurian of the Tuwa (from Karatajute-Talimaa, 1973). C. Reconstruction of body form of *Cladoselache fyleri* from the Late Devonian Cleveland Shale of Ohio (from Zangerl, 1981). Scale bar for A & B is 0.25mm (arrows point to anterior), C is 5.0cm.

Despite the shark-like appearance of *Cladoselache*, in the time between the Devonian period until the end of the Paleozoic, sharks evolved into diverse and sometimes bizarre looking fishes, some of which have been reported from Texas sediments. This paper is not intended to be a comprehensive review of the Paleozoic sharks reported from Texas, but rather a brief discussion of three early types of sharks that demonstrate the interesting diversity of the Paleozoic sharks reported from the state. The three types of sharks that will be discussed are the xenacanths, *Helicoprion*, and the petalodonts.

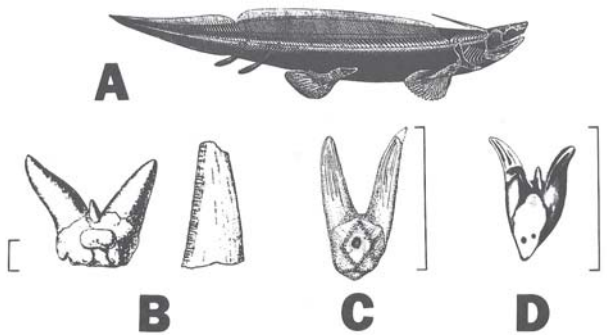

Figure 2. Xenacanth shark reconstruction and teeth. A. Reconstruction of *Xenacanthus*; average specimen approximately 1 meter long (from Romer, 1966). B. Tooth in lingual view of *Orthacanthus* sp. (cf. *O. texensis*) with enlargement (on right) of cusp showing serrations (from Zangerl, 1981). C. Tooth in lingual view of *Barbclabornia luedersensis* (modified from Ginter, et al., 2010). D. Tooth in lingual view of *Mooreodontus moorei* (modified from Johnson, 1980). Scale bar for B is 1.0cm, for C and D is 5.0mm.

Xenacanths

The xenacanths were sinuous sharks with a single dorsal fin spine (Fig. 2A) that range from the Carboniferous (Mississippian) to the Upper Triassic (Ginter et al. 2010), but are most abundant throughout the Permian. Their remains occur primarily in nonmarine sediments, but they have also been recovered from nearshore marine deposits suggesting that they may have also been brackish tolerant (Schultze, 1985; Johnson, 1999:254). Xenacanth shark teeth are very distinctive with a tricuspid crown consisting of two principal lateral cusps and a much smaller and sometimes absent central intermediate cusp; the base (root) is "button-like" with visible nutrient holes (foramina). Three of the most commonly reported xenacanthid taxa from Texas are *Orthacanthus texensis, Barbclabornia (Xenacanthus) luedersensis and Mooreodontus (Xenacanthus) moorei* (Figs. 2B-D). There are several other xenacanth species also reported from Texas, and the reader is referred to Johnson (1991, 1999, 2011) and Ginter et. al. (2010) for thorough reviews of the various xenacanth sharks and their distribution.

Orthacanthus texensis has been reported from the Permian (Wichita Group) of north-central Texas (Johnson, 1991). Its teeth are large for xenacanths, but typical for *Orthacanthus* (can approach 3cm), with a robust rounded base margin (root), serrated divergent principal cusps that are lanceolate in cross-section, and usually with one (most common) or more minute central intermediate cusps (Fig. 2B).

Barbclabornia (Xenacanthus) luedersensis was first reported from the Lower Permian Lueders Formation (Berman, 1970), but is known to occur in much of the Lower Permian section (Wichita Group into the base of the Clear Fork Group) of north-central Texas (Johnson, 1991, 2003). Its teeth are very small (generally not larger than 5mm), with a diamond-shaped base margin, lingually recurved principal cusps (with no cutting edge serrations) that are compressed oval in cross-section with numerous strong cristae (ridges); the central intermediate cusp is absent (Fig. 2C). Despite its small teeth, this

shark is estimated to have been 14-15 feet long based on the size of a partial skull (Zidek et al. 2003).

Mooreodontus (Xenacanthus) moorei has been reported from the Late Triassic Tecovas Formation of Crosby County (Johnson, 1980). While not from Paleozoic sediments, the occurrence of this xenacanth in the Mesozoic rocks of Texas demonstrates that these sharks survived the Permian extinction event. Its teeth are very small (generally 3mm or smaller), with triangular base margin, divergent principal cusps (with no cutting edge serrations) that are almost round in cross-section with few cristae, and with a well-developed central intermediate cusp (Fig. 2D).

Helicoprion

Although *Helicoprion* has been reported worldwide (Carroll, 1988), its fossils are always rare and often fragmentary. This shark occurs in offshore marine sediments (probably had a free-swimming pelagic lifestyle in deeper waters), and has a reported geologic range from the Lower Permian with questionable distribution back into the Late Carboniferous (Chorn, 1978). It has been reported from a number of North American localities, including Texas. *Helicoprion* fossils have been reported from the Lower Permian (Wolfcampian) Skinner Ranch (Kelly & Zangerl, 1976) and Bone Spring (Chorn, 1978) Formations exposed in the Guadalupe Mountains of west Texas. According to Chorn (1978:3), the Texas specimen described by Kelly and Zangerl (1976) is the earliest undisputed occurrence of this genus worldwide.

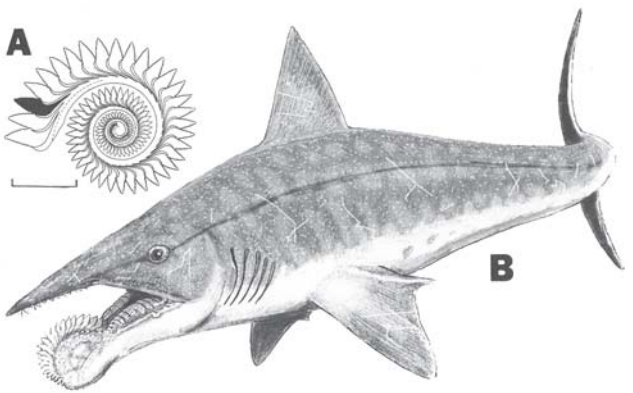

Figure 3. *Helicoprion* tooth whorl and reconstruction of shark. A. Symphysial tooth whorl with single tooth plate shaded (adapted from Carroll, 1988; scale bar is 10.0cm). B. Reconstruction of the "Helicoprion shark" believed to be approximately 3m or greater in length (from http://en.wikipedia.org/wiki/Helicoprion).

Helicoprion is an "organ-genus," which means that it is known only from distinctly shaped fossil tooth whorls (and rare cranial cartilage sections) with no complete body fossils of the shark yet reported. These fossils are symphysial tooth whorls of three to four volutions where the first-formed teeth (of the juvenile fish) are in the center of the whorl (Fig. 3A). According to Zangerl (1981), the tooth count ranges from 100 to 180 in the typical tooth whorl. In the absence of a complete fossil animal, there have been

numerous, sometimes fanciful and bizarre, interpretations of the specific function of the tooth whorl and what the actual shark looked like. One possible interpretation is provided in Figure 3B. After careful study, recent interpretations are that the tooth whorls are probably lower jaw elements or may have actually been in the throat of the shark rather than the jaws (Purdy, 2008).

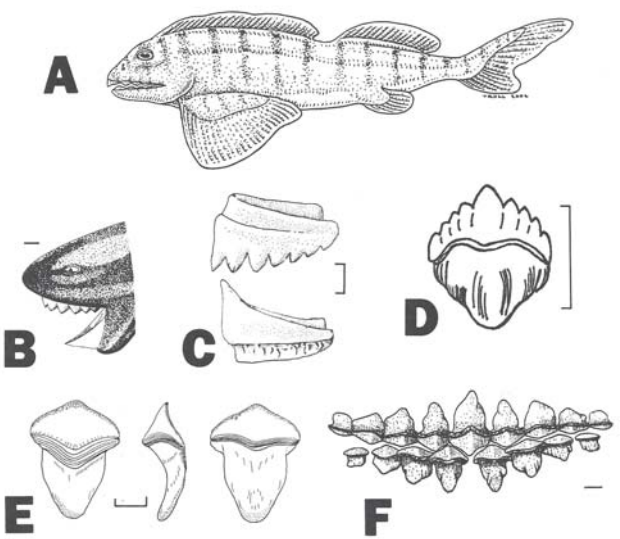

Figure 4. Petalodont shark reconstructions and teeth. A. Profile view of *Petalodus,* approx. 1.5m long (from Robb, 2003; drawn by Ray Troll). B. Reconstruction of *Megactenopetalus kaibabanus* dentition (from Hansen, 1978). C. Upper and lower teeth of *M. kaibabanus* in left view (from Ginter, et al., 2010). D. Tooth of *Peripristis semicircularis* in labial view (drawn by author). E. Medial tooth of *Petalodus ohioensis* in lingual, lateral (side) and labial views, L to R (from Robb, 2003). F. Reconstruction of the dentition of *P. ohioensis*, labial view (from Robb, 2003; after reconstruction created by M.C. Hansen). All scale bars are approximately 1.0cm.

Petalodonts

The petalodonts are an abundant diverse group of late Paleozoic (Lower Carboniferous to Permian) marine sharks that occur in strata worldwide (Zangerl, 1981; Hansen, 1985). Most taxa lived an active free-swimming predaceous lifestyle in a variety of nearshore to more open-water settings. Their teeth vary somewhat in design and composition in the dentition, but all roughly possess the "petal-like" shape that serves to name the group. Three species of petalodonts reported from Texas sediments (*Megactenopetalus kaibabanus, Peripristis semicircularis*, and *Petalodus ohioensis*) will be discussed as they display some of the diversity of petalodont sharks. Complete body fossils of several petalodont shark taxa have been discovered globally, but none from the species commonly reported from Texas. However, a reconstruction of *Petalodus* has been created (Fig. 4A) based on attributes of recovered fossils and the other complete petalodont sharks.

Megactenopetalus kaibabanus is rare, but has been reported from the Permian Road Canyon Formation in the Glass Mountains region of Brewster County, Texas (Ossian,

1976). Its teeth are large (up to 5cm) and convexly curve lingually, with both upper and lower dentitions consisting of a single tooth (Fig. 4B). The upper tooth contains from 10 to 14 triangular elongate cusps, whereas the lower tooth consists of a broad single cusped crown that fits into a notch in the lingual side of the upper tooth when the mouth is closed (Hansen, 1978; Fig. 4C). There is a much reduced base (root) compared to other petalodont teeth. Two more common types of petalodont shark fossils recognized from Texas are teeth that can be referred to the species *Peripristis semicircularis* and *Petalodus ohioensis*.

Peripristis is also thought to have a dentition with a single upper and lower tooth similar to *Megactenopetalus*. Its teeth are small (up to 1.5 cm), petal-shaped overall, with lingully convex curvature, and with distinctive multiple tapering triangular cusps that form a serrated cutting edge on the upper tooth crown (Fig. 4D). It is presumed that the lower teeth have fewer or maybe no separate cusps. It has been hypothesized that the dentition of this shark functioned similar to the beak-like jaws of the modern parrotfish (Ginter et. al., 2010). *Peripristis semicircularis* has been recovered from the same Pennsylvanian strata as *Petalodus* in Texas.

Petalodus ohioensis has been recognized from Pennsylvanian strata (including Caddo Creek Fm., Strawn Group, Harpersville Fm.) throughout north-central Texas. The teeth of *P. ohioensis* are up to 5cm in length, compressed labio-lingually, with petal-shaped triangular non-serrated crowns and elongated bases (Fig. 4E). The *Petalodus* dentition contains 8 to 9 teeth in both the upper and lower jaws arranged symmetrically in successional replaceable tooth files that become smaller and more low-crowned towards the posterior (jaw hinge) as typical in selachian dentition arrangements (Fig. 4 F). *Petalodus alleghaniensis* is often cited to occur from Texas, but Hay (1902, 1929) considered this name a junior synonym of *P. ohioensis*.

Conclusion

Some very interesting and diverse shark fossils, including xenacanths, *Helicoprion*, and petalodonts, occur in the Paleozoic sediments of Texas. The distinctive pronged teeth of *Orthacanthus texensis*, a fresh water-dwelling Permian shark, are the most common xenacanth sharks to be recovered from Texas. Possibly the most bizarre and rare of the Paleozoic shark fossils to be recognized from Texas are the symphysial tooth whorls of *Helicoprion* known from Permian marine deposits. Petalodont shark fossils occur in relative frequency in Pennsylvanian strata of Texas, with *Petalodus ohioensis* being one of the most abundantly recognized taxa. While some of these Paleozoic sharks are very rare and others locally common, they are all interesting and unusual fossils to be collected and studied by the fossil enthusiast.

Acknowledgements

I thank Mike Hansen (ODNR) and Gary Johnson (SMU) for their very helpful discussion, review and comments to improve this article; and George Wolf for allowing me to study some xenacanth and petalodont specimens in his collection for comparative purposes.

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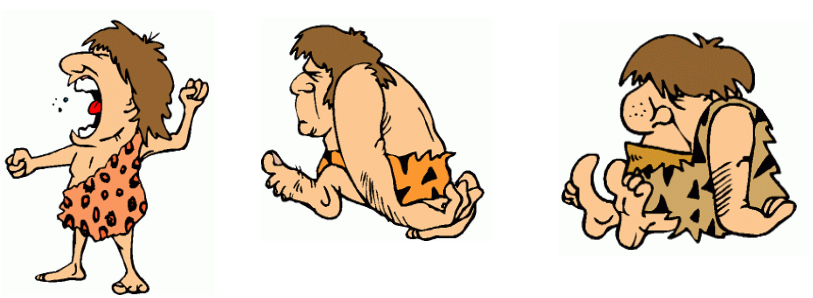


Cartoons from 2002-2008 SCRIBE DVD

Can You Identify This Mystery Rock?

by Kemp Maer
Member of the Houston Gem and Mineral Society

I need help identifying a rather interesting rock. It's from a gully I described in the article "Geologic Stories Told by a Texas Gully" in the September 2011 *Backbender's Gazette*. The gully contains cobbles and gravel from what I believe to be a terrace deposit of the Colorado River of Texas located in northwestern Colorado County, Texas. The Colorado begins in West Texas and passes through Central Texas, where it cuts through the Edwards Plateau and the Llano Uplift, so there are a lot of possible places this rock could have come from.

Figure 1 shows a side view of the rock. Note that it somewhat resembles a rocking chair, so I'll describe it from the perspective of someone sitting in it. Thus, the view in Figure 1 is of the right side, Figure 2 shows the left side, Figure 3 is a top view, and Figure 4 is

Figure 1 View of Right Side and Top

Figure 2 View of Left Side

Figure 3 Top View

Figure 4 Bottom View

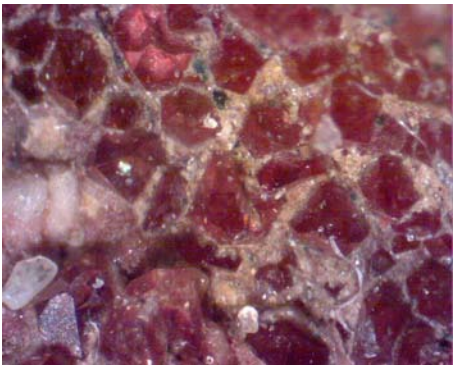


Figure 5. Microscopic View of Crystals in Elongated Cavity on Bottom

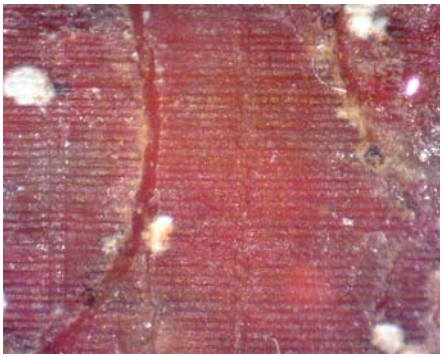
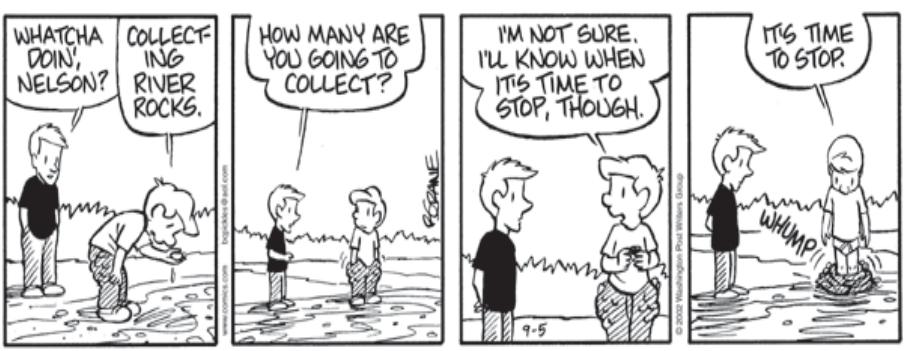


Figure 6. Microscopic View of Mineral with Striations on Seat Surface

a bottom view. The specimen is 2 in. long, 1.5 in. wide, and 2 in. high. The matrix is dark gray with hints of red staining. It is pockmarked by numerous spherical and cylindrical cavities, most of which are lined with crystals. Some of these crystals are clear, but most are red. There are also many tiny pockmarks that show up in the photos as white dots.

Figure 5 is a microscopic view (400X) of the red crystals lining the elongated cavity on the bottom (see Figure 4). Most interesting to me is Figure 6, which is a microscopic view (400X) of a flat, crystalline surface on the "seat" of the rocking chair. It is dark gray with extensive red staining, is "stair-stepped", and has striations on each level.

Ideas that have been proposed for the origin of this rock include metamorphosed shale with wormholes, basalt with gas bubbles, and silicified coral. I've been told that the crystals are probably quartz, and I suspect that the striated mineral is also quartz showing a twinning effect. If anyone has any thoughts about how and where this rock formed, what the crystals are, and what the striated mineral is, I'd be most interested to hear them. I've set up an e-mail address for responses: bbg.rockid@gmail.com.



Cartoon from 2010 Scribe DVD

Rock Hound's Lament

by LaVon Westfall
October 4, 2011

Here I am on the road again,
Wandering down a creek bed,
Picking up pebbles in the rain.
On my knees, digging' in dirt,
Oh, my back, I feel a pain.
Sliding down a rock face,
I'm caught between a
Rock and a hard place!

Minerals have a hold on me.
I'm always lookin' down,
Stoopin' over, siftin' through
Every rock upon the ground,
Trying to find a something
That just can't be found.
I'm caught between a
Rock and a hard place!

Man, I dig archeology, but
This Texas heat is killin' me!
I can't resist dry lake beds,
I'm sweating through arroyos
On a search for arrow heads.
Where are those pot shards?
Yup. I'm caught between a
Rock and a hard place!

On a hunt for ancient bones,
Stumbled on a well head,
Fell and tore my pants.
Got chewed by fire ants.
Now mosquitoes found me
And the gnats surround me.
I'm caught between a
Rock and a hard place!

All my life I longed to
Discover something colossal,
Like a winged dinosaur,
Or some Jurassic fossil.
What did I find instead?
Teeth of the recent dead!
Oh, I'm caught between a
Rock and a hard place!

Spelunking in a cave,
Amethyst is detected.
The crystals are amazing,
Of course, they're protected.
Wow! A petrified tree trunk,
And I can't begin to lift it.
I'm still caught between a
Rock and a hard place!

Picked up a load of schist.
Dumped it in my pickup truck,
Cause it might hold tiny gems.
Looks like I'm out of luck.
The engine starts to knock.
And all I can say is—
I'm caught between a
Rock and a hard place!

Here I am on the road again!
Rock hounding with delight.
Googling geology, even biology
So I can identify by sight
All those minerals, bones, and fossils.
They tell me I am O.C. Not me!
I'm just caught between a
Rock and a hard place!

Swap Area at the Show

November 11-13, 2011
by Steve Blyskal

There will be a swap area at the show this year. It will be located as usual in the glass wall annex on the east side of the Convention Center, in the same room as the Youth Section booth and activity area. We plan to have our tables follow the curve of the wall across from where the Youth Section will be set up. There are plenty of floor outlets in this area, so swappers can have lights at their tables.

The swap area will operate on Friday, Saturday, and Sunday this year, as it has in the past few years. We expect to have many children at the show on Friday, and many of the swappers have minerals suited for beginning collectors. The swap area will be open from 9–6 on Friday, 9–6 on Saturday, and 10–4 on Sunday.

As in past years, those who have minerals, fossils, or polished stones they would like to swap can bring them to the area and attempt to trade them with the swappers who have set up. Swap dollars will also be available for those who do not have an item to trade. Swap dollars work like this. One of the swappers has a piece of petrified wood that you want. You work out a price of $15.00. Then you go to the booth where swap dollars are sold, give them the $15.00 in cash, and get 15 swap dollars. The 15 swap dollars are given to the swapper and you get the petrified wood. So what does the swapper do with the swap dollars, you ask? He has until the end of the show to go around to the dealers and find items that he wants. Then he pays for the item with the swap dollars.

How does this benefit everyone? You, the customer, get a good deal—you might save some money buying in the swap area. The swapper gets rid of the material he has on hand—stuff he has found, or cut or traded for, for example. The dealer gets the money that might not have been spent otherwise.

The swappers can use up to two tables, if available, at a charge of $10.00 per table for the show. Material that can be put out at the swap area includes minerals, rocks, fossils and equipment. Also cabachons, faceted stones, and jewelry made by the seller. No commercially made jewelry is permitted. Swappers can reserve a place at the swap by calling or e-mailing the Chairman, Steve Blyskal, at steve.blyskal@gmail.com. Table space is limited. There are rules for using the swap area, and violators may not be given table privileges. Swappers are expected to help man the booth to sell the swap dollars and volunteers from the Show Committee are also asked to help. This is one of the more popular volunteer activities since you get to sit down and talk to friendly people. Instructions are provided on how to handle the exchange of cash for swap dollars, and how to handle other situations that might arise.

Swap dollars are valid for purchases of merchandise from dealers at the show up until 6 p.m. Sunday 10/13/2011, at which time they become void. That is why the swap area closes early on Sunday, to allow the swappers time to go spend their swap "money." Dealers redeem their swap dollars at the end of the show for cash. Therefore all money

spent in the swap area eventually goes to the dealers in the show.

If you still have any questions about the swap area, want to participate and swap, or just want to help sell swap dollars during one of the three-hour volunteer slots, you can call the swap area chairman, Steve Blyskal, at 832-264-1278 after 7 p.m. in the evening. Come help Steve and learn how the swap area operates! It's a great way to learn more about collecting, meet people, and help the club!

Nominating Committee Named:

by Terry Proctor

The Board of Directors of Houston Gem & Mineral Society has named the 2011 Nominating Committee as mandated by the Bylaws. The persons whom the Board has named are: Margo Bedman, Matt Dillon, Charlie Fredregill, Phyllis George, and Terry Proctor.

The Officers to be nominated by the Nominating Committee are President, First Vice-President, Second Vice-President, Secretary, and Treasurer. The post of Past President of the Board is an automatic office, so no nominee is nominated.

If you are interested in being nominated, contact any of the persons on the Nominating Committee as soon as possible. The nominations will be announced at the October 25, 2011 General Membership meeting. Nominations can be made from the floor also at that time. At the close of the October 25, 2011 meeting, all nominations are set. Voting will be at the November 22, 2011 meeting. Each adult Section is also to elect a Representative to serve on the Board also. Hopefully all of those persons' names can be provided to the membership at the November 2, 2011 General Membership meeting.

HGMS General Meeting

September 27, 2011
by Sarah Metsa
HGMS Secretary

The meeting was called to order by Past President Terry Proctor at 7:30 p.m. in the absence of the President and Vice-President.

There were 30 members and guests in attendance at the meeting. The guests introduced themselves, and several were students of our evening's speaker, Prof. Nathalie Brandes.

Mike Dawkins moved that the minutes be approved as published in the BBG, and Matt Dillon seconded the motion. The approval was by unanimous vote. The Treasurer was not present at this meeting, but had reported at the Board meeting that the club is in good sound financial condition.

Before the business meeting, as scheduled by President Steve Blyskal, the speaker presented the program, after which the remainder of the business meeting proceeded. The report on the Program will be presented below.

Terry Proctor announced that per the Bylaws, the HGMS Board had appointed a five-member Nominating Committee to nominate nominees for next year's Officers of the Board of Directors. Those serving on the Nominating Committee are: Past President, Terry Proctor; Lapidary Section and Communications Chairman (BBG & Website) Phyllis George; a former President, Matt Dillon; and two very active members, Margo Bedman and Charlie Fredregill. The nominees will be for President; First Vice-President (and program chairman); Second Vice-President (and membership chairman); Secretary; and Treasurer. Under the By-Laws, the President becomes a member of the Board for the next year without election but by virtue of being the President for the preceding year. This makes six officers plus a representative of each of the seven Sections, comprising the new 13-member Board.

If you are interested in being an officer, please contact any member of the Nominating Committee and make them aware of your interest. That interest will be communicated by that Nominating Committee member to the entire Committee to make your wishes known.

At the October 25, 2011 General Membership meeting, the Nominating Committee will announce their nominees to the membership. Then any paid member can nominate any other paid member from the floor of that meeting to be added to the list of nominees. At the conclusion of the October 25, 2011 meeting, the nominations will cease and no additional nominations will be received.

At the November 22, 2011 General Membership meeting, the HGMS members present and voting will elect the Officers for 2012. At that time, each of the Seven Sections that has the right to a member on the Board, will announce who their 2012 Representative will be. Those thirteen people will then constitute the 2012 Board and may be sworn in at the Christmas/Holiday Season Party or later, and formally commence their office as of January 1, 2012.

There were several announcements of events, including the Victoria Gem & Mineral club's Show on October 15, 2011.

Those in attendance at this meeting were encouraged by Mary Ann Mitscherling to sign up on the sign-up sheets for a job to help out at the annual 2011 HGMS Show, November 11–13, 2011 at the Humble Civic Center. HGMS has a great show each year, but it takes the efforts of many HGMS members volunteering to help for the Show to be a success each year. If you are interested, contact Mary Ann Mitscherling at her home 713 957-2001 or Show Co-Chairmen Chris & Theresa Peek at their home 281 685-7610. Other numbers for each is listed in the new Directory. Volunteers were also requested to staff HGMS tables at several upcoming shows by other groups. Again, you can contact these folks listed to volunteer to help out.

Matt Dillon announced a field trip to Falcon Lake in January for agate. Those interested should contact Matt.

John Anderson presented at Show & Tell a vertebra that he had acquired years ago,

and had decided to cut. He isn't sure if it is dinosaur or mammoth, but it was a large vertebra and he made two cuts through it. Amazingly in the spinal cord canal through the vertebra was some tissue still soft to the touch. This was a very interesting specimen.

Several pieces of agate were provided by Ira Bradford for the drawing which was won by Pete Stassi, who just happened to win the drawing last month as well.

Paul Brandes moved to adjourn (okay he and wife/Speaker Nathalie had a long drive home) and it was seconded by Matt Dillon. The vote was unanimous by show of hands and movement of feet.

The evening program was presented by Nathalie Nicole Brandes, Profession of Geo Sciences, Lone Star College in Montgomery County, Texas. Her presentation was "Mining in the Ancient World." Prof. Brandes has now presented about four prior programs to us, and she did an excellent job on each. Her material is well researched, vigorously presented in a most interesting manner, and many interesting facts are learned in each session.

Nathalie started with the Paleolithic era (2,500,000 to 25,000 YBP) where the goal was to find quantities of chert (think flint). She told of first collecting on outcrops and then how far ancient people dug into the Earth to extract material for Stone Age tools and weapons. She told of the use of fire, including throwing vinegar on the fire to help cause the chert to fracture when brought to the surface (not underground) so that the portions for tools and weapons could more easily be obtained.

Prof. Brandes then covered the eras of copper, then bronze age materials, and mining and somewhat into the iron age as well. It was a fascinating trip through history as ancient people learned ever better to obtain stronger and easier to work materials which produced better products for their needs.

Neal Immega introduces Nathalie Brandes

Any of you new Archeology Section members who missed this program, you missed a very good archeology program presented to the entire membership. HGMS appreciates Nathalie and her husband, Paul, both of whom are members now of HGMS. Paul works with the Mineral Section a good bit. We are blessed with so many excellent members who have such vast knowledge and share it with

other members in classes and programs. Thank you Nathalie Brandes, once again for such a fine program.

Board of Director's Meeting Minutes

October 4, 2011
by Sarah Metsa
HGMS Secretary

X	President – Steve Blyskal	X	Beading Rep – Jillynn Hailes
X	1st Vice President – Ray Kizer		Faceting Rep – Gary Tober
X	2nd Vice President – Beverly Mace		Lapidary Rep – Phyllis George
	Treasurer – Rodney Linehan	X	Mineral Rep – Sigrid Stewart
X	Secretary – Sarah Metsa	X	Paleontology Rep –Terry Brawner
X	Past President – Terry Proctor		Day Light Rep – Nancy Fischer

The meeting was called to order at 8:30 p.m. with a quorum of seven members present.

Previous Month Board of Directors Meeting Minutes: The minutes of the September Board Meeting were published in the October 2011 BBG. Terry Proctor moved to approve the minutes of the previous meeting as published. Jillynn Hailes seconded the motion, and it carried unanimously.

Treasurer's Report: Treasurer Rodney Linehan was not present. But he spoke with Steve Blyskal and reported that HGMS is in good financial condition.

Officer, Committee, and Section Reports

Librarian Report: Steve Blyskal submitted three donated mineral books to be added to the library.

Show Committee: Intergem is the weekend of October 23, and volunteers are needed for the HGMS table. Auction for the HGMS show is on October 15. Dealers are currently paid up and all spots have been filled. The Labeling Party went very well, and it was completed in about two hours.

Old Business

New Member Orientation: The New Member Orientation was recently canceled as there appeared to be some conflict in the importance of this program to new members of HGMS. Therefore the Board at the October 4, 2011 meeting discussed this and the New Member Orientation will be rescheduled for January or February, 2012. All new members are encouraged to plan to attend.

The New Member Orientation will cover our organization, each of the eight Sections,

Get last-minute news about club events by sending a note to Neal Immega at n_immega@swbell.net.

our regional and national organizational affiliation, our educational program classes, field trip, security, shop rules, and many other things. Additionally in the past we have had new member orientation programs on shop use also and will undoubtedly do that again as well.

Nominating Committee: Committee members have been advised and they are working on finding nominees to be announced at the October General Meeting.

Adjourn: Terry Proctor moved and Jillynn Hailes seconded that the meeting be adjourned. The motion passed unanimously. The meeting adjourned at 9:07 p.m.

BenchTips

by Brad Smith
More BenchTips by Brad Smith are at
groups.yahoo.com/group/BenchTips/
or
facebook.com/benchtips

Removing a Stone from Bezel Setting

If you've forgotten to use dental floss and got your stone caught in a bezel, there's one thing you can try before starting to pry. Find some sticky wax or beeswax. Roll it into a pencil-sized cylinder and stick the end onto the top of the stone. Mold it on well and yank.

If all else fails, you either have to very carefully pry open the bezel with a sharp knife blade or drill a small hole in back of the stone and push it out with the point of a scribe.

Making Your Own Mokume

Ever think about making your own mokume? Here's a link to the detailed steps in the sequence as done by a professional. Look for mokume on
http://www.rchristopher.com/tech/

Foredom Stand

A quick and easy way to suspend a Foredom over your jewelry bench is to use some steel pipe components from your local hardware store. It attaches with a couple screws and costs a little over $10.

I use 1/2 inch galvanized pipe and fittings. To build a stand that attaches to the top of your bench, all you'll need is a flange and a thirty-inch length of the pipe. If you prefer a stand that attaches to the side of your bench, you'll need a little longer pipe, three foot, a flange, and a 90 degree "street elle."

Finally, make a hook that goes into the top of the pipe to hang the motor from. You can use heavy coat hanger wire or better yet, a 1/8" steel rod from the hardware store.

In addition, you may find this news video of some interest. It's about the origins of some of the Earth's gold.

<http://news.nationalgeographic.com/news/2011/09/110907-gold-metals-earth-meteors-oldest-rocks-nature-science/>

Brad Smith

The 5-minute Drill

by Owen Martin
Safety Coordinator for AFMS / SCFMS

I've written periodically over the last few years about emergency preparedness so that if some type of weather event impacts you, that you have water, food, batter ies, first aid kits etc. I typically made two assumptions, one being that you would have enough time to "pack and evac" in the case of something like a hurricane, or the other, that you were prepared to deal with the aftermath of a storm event like a tornado or storm front.

Unfortunately the recent wildfires in the south-central USA has brought up another instance to consider for emergency preparedness.

Local emergency responders were forced to provide a "5-minute evacuation order" for hundreds of home owners in the vicinity of several wildfires. Those orders prompted a lot of discussion in the local media about how to comply and still save what you think is important. The first wave of feedback was to protect your loved ones and pets, and get in the car and go. That however did not reflect the fact that the authorities were providing a small amount of time to actually pack a few things before leaving.

In other words, don't panic!

If you can organize yourself prior to such an event, then you can practice it similar to a family fire drill.

At my home we determined that there would be a division of labor that would help us save more than just our skins and the clothes on our backs. So as an example:

Dad: medicines and safe deposit box key, parent clothes.
Mom: photo albums
Child #1: lap tops and clothes
Child #2: pets and pet food, clothes
Child #3: clothes and school backpacks

Likely that gives everyone time for two quick trips to dump everything into the van or truck. Little things like family wall photos could certainly be grabbed on the way out, too. I might even grab a couple of fossils or an arrowhead! It would really depend on how quickly we could move.

The point being we prioritized what we would do: who would get what first and second trips, and then be ready to go.

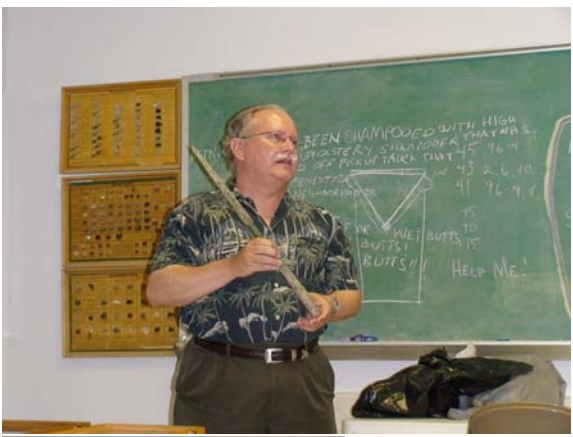
I would recommend you consider a "5-minute" drill in your own household so that if

you are forced to evacuate on short notice, you can do so in a calm and efficient manner, gather personal effects that have a high value to you, and still get out safely.

Owen Martin

QHS&E Specialist - US Operations
CCS Corporation USA
363 N. Sam Houston Pkwy. E., Suite 330
Houston, TX 77060
Ph: 832-399-4516
Cell: 281-734-7848
Fax: 832-399-4599
ccscorporation.ca

Photos Taken During the October 6 Archaeology Section Meeting by Terry Proctor



Bob Moore holds the Iranian bronze lance "Lukistani" weapon from 1,000 B.C. It would have been mounted on an oak shaft, but it still has part of the broken shaft and an original nail in it, so it isn't being altered. Bob is a CFP *(certified financial planner)* and husband

Nancy Engelhardt-Moore is the lady with the Ocarina. It is from the Peru "Visu" culture of about 1,000 A.D., and it is a terra cotta ocarina musical instrument. She is a paleontologist and wife of Bob Moore.

[front to back and l. to r.] the three children of Dr. Garth and Billie Clark, being sons Aaron and Landan and daughter Briana; at table, Secretary Burton Dworsky, Chairman Dr. Garth Clark and Nancy Engelhardt-Moore; 1st row Vice-Chairman Dr. Terry Proctor, Douglas Dodds, Bob Moore, Terry Brawner and Jon Hart; 2nd row Deidre Prince and Rod Underwood; back row new member Jim Wines and Bill Moore. attending, but not pictured is Steve Jackey. The photo was taken by Billie Clark.

The Native American points and the repaired pot were presented by **Jon Hart**, who brings some points to each meeting and identifies them for members.

The unfinished lapidary altar and flame were made by **Jim Wines**, an HGMS member who attended the Archeology meeting for the first time. He and his family are American Zoroastrians. This religion was discussed at the October 6, 2011 meeting along with a fortress at a location where it is believed that Zoroaster resided at one time.

Show Time 2011

October 29-30	Glen Rose, TX	Paleo Society of Austin Somervell Expo Center, Hwy. 67
November 5-6	Amarillo, TX	Golden Spread Gem & Mineral Society Amarillo Civic Center, Exhibition Hall Wanda Finley, finfran@midplains.coop
November 5-6	Midland, TX	Midland Gem & Mineral Society Midland Center, 105 N. Main St. Tom Wurster, www.midlandgemandmineral.org e-mail: show@midlandgemandmineral.org
November 11-13	Humble, TX	Humble Civic Center, 8233 Will Clayton Pkwy. 5 miles east of Bush Intercontinental Airport 1 mile east of Hwy. 59; www.hgms.org Chris&Theresa Peek; ladyt682@hotmail.com
November 19-20	Mesquite, TX	Dallas Gem & Mineral Society Resistol Arena
December 2-4	El Paso, TX	El Paso Mineral & Gem Society El Maida Auditorium, 6331 Alabama Jeannette Carrillo, gemcenter@aol.com Web site: epmgs.com
December 3-4	Round Rock, TX	Paleo Society of Austin Old Settlers Park Next to Dell Diamond
December 10-11	De Ridder, LA	De Ridder Gem & Mineral Society Beauregard Parish Fairgrouds

Show Time 2012

January 1-31	Quartzsite, AZ	Major show, many sites. Two are listed. Desert Gardens RV Park; 1055 Kuehn St., I-10 Exit 17; www.desertgardensrvpark.net Tyson Wells Enterprises Inc.; Tyson Wells Show Grounds; www.tysonwells.com
January 27-29	Tyler, TX	East Texas Gem & Mineral Society Rose Garden Center, 420 Rose Park Dr. Keith Harmon, keithharmon19@yahoo.com
February 1-29	Quartzsite, AZ	Desert Gardens RV Park; 1064 Kuehn St., I-10 Exit 17; info@desertgardensrvpark.net www.desertgardensrvpark.net

2011		November				2011
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
		1 7:30 Board Meeting	2 7:30 Mineral Section 10-5 Shop Open	3 7:30 Archaeology Group	4	5 10–5 Shop Open 10–12 Youth Section
6	7	8 7:30 Show Committee	9 7:30 Faceting Section 10-5 Shop Open	10	11	12 10–5 Shop Open
13	14 1:00 Day Light Section	15 7:30 Paleo Section	16 7:30 Mineral Section 10-5 Shop Open	17	18	19 10–5 Shop Open 10-12 Youth Section 1:30 Beading Section
20	21 7:30 Lapidary Section	22 7:30 General Meeting	23 10-5 Shop Open	24	25	26 10–5 Shop Open
27	28	29	30 10-5 Shop Open			

2011		December				2011
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
				1 7:30 Archaeology Section	2	3 10–5 Shop Open 10–12 Youth Section
4	5	6 7:30 Board Meeting	7 7:30 Mineral Section 10-5 Shop Open	8	9	10 10–5 Shop Open Christmas Party
11	12 1:00 Day Light Section	13 7:30 Show Committee	14 7:30 Faceting Section 10-5 Shop Open	15	16	17 10–5 Shop Open 10-12 Youth Section 1:30 Beading Section
18	19 7:30 Lapidary Section	20 7:30 Paleo Section	21 7:30 Mineral Section 10-5 Shop Open	22	23	24 10–5 Shop Open
25	26	27 7:30 General Meeting	28 10-5 Shop Open	29	30	31 10–5 Shop Open

The BACKBENDER'S GAZETTE

The Newsletter of the Houston Gem & Mineral Society

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2009 - 1st (Large)
2010 - 1st (Large)

AFMS

1998 - 2nd (Large)
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2007 - 1st (Large)
2010 - 2nd (Large)

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