



THE AMMONITE



Newsletter of The Western Dakota Gem & Mineral Society – March 2009

FROM THE PRESIDENT by Deb R.



It was with great surprise and sadness that I learned of the passing of Beverly (Bev) LeRoy. Bev passed away on February 11, 2009 and was laid to rest on the 17th at the Black Hills National Cemetery. To those of us who just saw Bev at the January meeting, this was very unexpected. As usual, Bev was upbeat and friendly – showing everyone her latest gemstones, a pair of beautifully faceted Hellenite stones. Bev was so proud of the stones she received from her family, like the Sapphires from Afghanistan, or the ones she created herself to give to her poker-playing buddies at the senior center. Bev was always a willing supporter in the club, volunteering to help in whatever capacity was needed. She was a great help to me in sorting through the many specimens received in the Rock Exchange, and was our Show co-Chair for this year's coming event. Her talent, enthusiasm, generosity and over-all good nature and friendliness will be greatly missed for a long, long time.



Programs are still needed for 2009!

Museum of Geology Unveils New Exhibit

SDSM&T Foundation Update, January 2009 edition.

This summer, David Brown of Hot Springs, South Dakota, got a big surprise when landscaping his yard. When unloading a pallet of limestone for a retaining wall, he came across what appeared to be an impression of a fish.

Brown brought the specimen to the South Dakota School of Mines and Technology's Museum of Geology, where Dr. James Martin, professor of geology and geological engineering and executive curator of the museum, identified it as a 260-million-year-old fossil of a Palaeoniscoid Fish. According to Martin, the Minnekhata Limestone in the area dates to the Permian Period, approximately 260 million years ago, when a shallow sea covered most of western South Dakota.

Martin also added that the Palaeoniscoid Fish is a primitive ray-fanned fish, which was within the group that may have given rise to later ray-finned fish, such as herring and minnows.

The discovery is unique because it is amazingly defined and appears to have scales imbedded in the rock. Brown has graciously allowed the Museum of Geology to display the remarkable fossil, and the display is open for public viewing.



Plate showing skull of *Triceratops prorsus*, published by Othniel Marsh in 1896.

Triceratops Horns Aren't Just for Show

By Haley Stephenson, *ScienceNOW* Daily News, 28 January 2009

Watch any black-and-white movie about dinosaurs, and you're likely to see a *Triceratops* jabbing a *Tyrannosaurus rex* with its horns. Over the years, paleontologists have backtracked on the idea that these horns were weapons, however, with some arguing that they may have been merely for show. But a new study suggests that those early filmmakers had it right: *Triceratops* may have locked horns after all.

Triceratops looks like it was built for battle. Two long horns jut out from above its eyebrows, and a third protrudes from the tip of the nose. Then there's the shieldlike frill that sweeps back and fans out from its face. But, like peacock feathers, the horns might have been signs to advertise health or fertility.

In an effort to settle the debate, paleontologist Andrew Farke of the Raymond M. Alf Museum of Paleontology in Claremont, California, and his colleagues examined 400 skull bones of *Triceratops* and a fellow, three-horned predecessor called *Centrosaurus*. *Centrosaurus* differs from *Triceratops* in that its nose horn is much larger than the other two horns, much like a rhinoceros. To Farke, that suggested that *Centrosaurus* had an alternative style of combat, possibly a body attack versus a head butt. And indeed, his team found that *Triceratops* skulls sported 10 times more fractures and lesions than the *Centrosaurus* skulls. The lesions were concentrated on the side of the frill, probably because its large area made it more vulnerable during battle.

Farke doesn't rule out that the horns were also used for display purposes. "They're kind of like a Swiss army knife," he says. "They could use them however they wanted."

Still, paleontologist Jack Horner of the Museum of the Rockies in Bozeman, Montana, is not sold on the horns-as-weapons theory. "They seem to make the case that since there is trauma, it has to be due to combat," he says, "whereas, I would say if it's trauma caused by combat, why isn't it more prevalent and more traumatic?"

Why aren't there more actual punctures if indeed these animals are poking each other with sharp horns?" Farke is sticking to his interpretation. His team next plans to examine more *Triceratops* skulls and even *T. rex* ribs to see if they show signs of battle damage--perhaps being cracked by a horn.



Mark A. – a short biography of a man of many talents:

My name is Mark Anderson and I've been a member of the local rock club now for a couple of years. All my life, I've been interested in rocks and minerals among other things. When I was still in the crib, my parents would take me out with them to hunt agates in the rock beds. They would put a blanket over the crib to keep the sun off me while they hunted. My father also took me with him a lot to look for relics around old homesteads and we also hunted for arrowheads often. While I was in college, I learned how to make stone tools and artifacts. My extended family of aunts, uncles, grandparents and siblings would frequently get together and hunt for agates, old bottles and metal detect. Over the years, I accumulated a lot of "stuff"! So much so that I had to turn one of my bedrooms into a museum room. Lately, I started learning faceting and silversmithing. Both are very good hobbies for a long cold winter. Being a member of the rock club has been a fun and educational pastime. I hope to spend many more years with this endeavor.

2009 Summer Fossil Expeditions: (from SDSM&T flyer)

The SDSM&T Geology Museum is offering the following expeditions to interested individuals. Contact them at Museum@sdsmt.edu or 1-800-544-8162 x 2467 for more information or to sign-up.

- Fossil Lake Oregon – May 11 to 22 – collect Late Pleistocene (Ice Age) fossil vertebrates at Fossil Lake, OR. The cost is \$600 for 1 week or \$1200 for two.
- Dinosaurs of the Judith River Formation – July 20 to 31 – discover the small and large beasts that roamed during the Late Cretaceous with north central WY fossil expert Mr. David Parris. Cost \$1500 for registration, handouts, lodging and meals.
- Giant Fossil Sea Reptiles from the Late Cretaceous Western Interior Sea – August 3 to 14 – search SD , and help collect Cretaceous marine reptiles like the mosasaurs and plesiosaurs. Cost \$600 for 1 week or \$1200 for two.
- Family Oriented Camps include the Family Paleontology Camp (\$200 for 2 days, offered multiple dates in June and July) and the Little Houston Quarry (\$600 for 5 days, offered multiple dates in July).

Zodiac stones (part 3 of 12):

From Wikipedia, the free encyclopedia

Early civilizations such as India and Babylon have attributed gemstones with magical properties. Over time, astrologers assigned gems of certain colors to the twelve signs of the zodiac to help people influence the planets in their favor.

Sign	Dates	Stone	Sign	Dates	Stone
Aquarius	January 21 - February 18	Garnet	Leo	July 23 - August 23	Onyx
Pisces	February 19 - March 20	Amethyst	Virgo	August 24 - September 22	Carnelian
Aries	March 21 - April 20	Bloodstone	Libra	September 23 - October 23	Peridot
Taurus	April 21 - May 21	Sapphire	Scorpio	October 24 - November 22	Beryl
Gemini	May 22 - June 21	Agate	Sagittarius	November 23 - December 21	Topaz
Cancer	June 22 - July 22	Emerald	Capricorn	December 22 - January 20	Ruby



The mineral **heliotrope**, also known as **bloodstone**, is a form of chalcedony, which is a cryptocrystalline quartz. The "classic" bloodstone is green jasper with red inclusions of iron oxide (red jasper). Sometimes yellow and/or other colors of jasper are also present, but these multi-colored gemstones are usually called "fancy jasper". The red inclusions are supposed to resemble spots of blood; hence the name "bloodstone". The name "heliotrope" (from Greek *helios*, Sun, *trepein*, to turn) derives from various ancient notions about the manner in which the mineral reflects light.

The primary source of the stone is India. It is also found in Brazil, China, Australia, and the United States. Bloodstone is the original birthstone for March. Today, bloodstone, jasper and aquamarine are all considered the gemstones for March.

In the Middle Ages the red spots were thought to be the blood of Jesus, and the stone was believed to have miraculous powers, including making its wearer invisible. Boccaccio writes about it in his Decameron (VIII, 3). Medieval Christians often used bloodstone to carve scenes of the crucifixion and martyrs, leading it to also be dubbed "martyr's stone".



February 13, 2009 Minutes, by Hazel W. :

The meeting was called to order at 7:30 by the Vice President, Roger V. , due to Deb R. not being in attendance. A sign-in sheet was passed around for everyone to sign. All new members and visitors were requested to sign in and annotate if they were new members or visitors. The club had 2 new members for this meeting, West and Sara B. The members welcomed them to the club. It was noted that Bev LeRoy had passed away.

Old business: The last meeting minutes were approved by Mickey. and second by Jan G. Rita H. read the Treasurer report. The club now has 27 families and 42 singles as members. A balance of \$10,513 is in the treasurer's report. Annette R. stated that nametag prices are \$5.30 for the pin and \$5.83 for the magnet. Contact her if you would like to order a nametag.

Don R. briefed on the licenening of all dealers. This has not been voted on yet. He also briefed on the Blue Ribbon Coalition and stated there was nothing new at this time.

New business: Mickey and Calvin presented a flyer for review concerning the 2009 show. Steve S. is trying to get a field trip to the geology museum at the School of Mines, Dale J. invited club members to his home as a field trip. The show is scheduled for 27 and 28 June with setup on 26 June. James has taken over as the show co-chairman until another one is voted in (to replace Bev LeRoy). So far we only have 6 dealers that have signed up for the show. Rita announced that Michaels was offering a free jewelry making demonstration on Fri at 1:00.

Program: Mark A. presented the program for this month on Silver Smithing.

The meeting was adjourned at 9:00 with Stan Hohn motioning we adjourn and Mickey 2nd the motion.

Western Dakota Gem & Mineral Society 2008-2009 Officers and Chairpersons (area code 605)

President:	Deb R. , 430 E. Idaho St., Rapid City, SD 57701.....	343-7850
Vice President:	Roger V. , 4800 Summerset Dr., Rapid City, SD 57701.....	341-6299
Secretary:	Hazel W. , 2415 Judy Ave., Rapid City, SD 57702.....	399-2670
Treasurer:	Rita H. , 2569 Ambush Ranch Rd., Rapid City, SD 57703.....	348-3916
Show Co-Chair:	Beverly L. , 4702 Baldwin, Rapid City, SD 57702	242-4476
Show Co-Chair:	Jamie B. , 1701 5 th St., Rapid City, SD 57701.....	415-6283
Silent Auction Chair:	Linda S. , 11809 Eastridge Hill Dr, Black Hawk, SD 57718.....	716-4047
	(Silent Auction Asst-Chair: Mickey Snook)	
BRC SD Rep:	Donald R. , 2701 Mystic Mt. Rd., Rapid City, SD 57702.....	348-8948
BHRMUC Rep:	Donald R. , 2701 Mystic Mt. Rd., Rapid City, SD 57702.....	348-8948
RMFS SD Dir.:	Donald R. , 2701 Mystic Mt. Rd., Rapid City, SD 57702.....	348-8948
RMFMS SD Reps:	Donald R. , 2701 Mystic Mt. Rd., Rapid City, SD 57702.....	348-8948
Field Trip Chair:	Steve S. , 11809 Eastridge Hill Dr, Black Hawk, SD 57718.....	716-4047
	(Field Trip Asst-Chairs: Jan B. and Calvin L.)	
1 yr. Board Member:	Jamie B. , 1701 5 th St., Rapid City, SD 57701.....	415-6283
2 yr. Board Member:	Ellen T. , 21653 Piedmont Meadows Rd., Piedmont, SD 57769.....	787-4659
3 yr. Board Member:	Dale J., 14974 Back Country Trail, Rapid City, SD 57703.....	393-2011
Newsletter Editor:	Deb R. , 430 E. Idaho St., Rapid City, SD 57701.....	343-7850
Historian	Donald R. , 2701 Mystic Mt. Rd., Rapid City, SD 57702.....	348-8948
Publicity Co-Chair:	Mickey S., 201 Patton St., Rapid City, SD 57701.....	791-1953
Publicity Co-Chair:	Calvin L. , 220 E. St. Joseph #2., Rapid City, SD 57701.....	593-1711
Librarian:	Steven E., P.O. Box 1123, Rapid City, SD 57709.....	484-5712

Club Address: 2701 Mystic Mt. Rd., Rapid City, SD 57702

Meetings: Second Friday of each month, 7:30 p.m., Minneluzahan Senior Center, 315 N. 4th St., Rapid City

Dues: Family - \$15, Single - \$10, Payable by cash, check, or money order. Senior Citizens free membership (does not include bulletin)

The purpose of our club is to promote interest and education in geology, mineralogy, paleontology, archaeology, and lapidary, to sponsor and provide means of coordination the work efforts of groups and individuals interested in these science fields.

THE AMMONITE
Official Publication of the
Western Dakota Gem & Mineral Society
Editor: Deb R.
430 E. Idaho St.
Rapid City, SD 57701
sashaNren@peoplepc.com

Affiliated with AFMS and RMFMS
Club Mailing Address:
2701 Mystic Mt. Rd., Rapid City, SD 57702

Material in this newsletter may be used if proper credit is given.
Material for this newsletter must be given to the editor by the
25th of the month preceding that issue.



JUST AROUND THE CORNER

March Meeting Mar 13th – Alaska Rockhounding Adventures,
By Steven S.

April Meeting Apr 10th – [Who will give the Program?](#)

March Door Prizes by Gene W.

March Refreshments by Hazel W.

Minneluzahan Senior Citizens Center