

St. Croix Rockhounds
Doug Olson, Editor
211 Interlachen Way
Stillwater, MN 55082



February, 2005

First Class

Please send exchange bulletins to:

Doug Olson, Editor
211 Interlachen Way
Stillwater, MN 55082

February 15th - Is this month's meeting date.

The program:
"Election of Officers"
"Show and Tell"
"Find of the Year"



St. Croix Rockhound's

LEAVERITE NEWS

Vol. 30, Issue 2; February, 2005

Member of:



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ST.CROIX ROCKHOUNDS

MEETINGS: Club meetings are held the third TUESDAY of each month, at Stonebridge Elementary School on W. Elm. St. in Stillwater, MN at 7:15 P.M.. Everyone is welcome.

MEMBERSHIP: Full membership for a single person over 16 is \$7.50 per year. Family membership is \$10.50 per year.

OFFICERS:

President	Vic Martinsen	(715) 247-3700
Vice President	Mike Frankenberg	(651) 723-4467
Secretary	Susan Dustin	(651) 430-3933
Treasurer	Elaine Martinsen	(715) 247-3700
Program Committee	Peter Rodewald	(715) 425-5561
	Bill Cordua	(715) 425-9544
	Victor Martinson	(715) 247-3700
Show Committee	Bill Cordua	(715) 425-9544
Refreshments	Freya Kask	(651) 777-6371
Librarian	Shari Frankenberg	(651) 723-4467
Historian	John Parsons	(651) 257-2724
Sunshine Committee	Marie Newlander MN	(651) 439-7809
Tour Director		()
Liaison Officer	Freya Kask	(651) 777-6371
Newsletter Editor	Doug Olson	(651) 430-9035

The purpose of our organization is to bring together rock and mineral enthusiasts on a regular basis through membership and through pooling of individual knowledge, talents and skills, to improve the lapidary skills of participating members. Affiliation: American Federation of Mineralogical Societies and Midwest Federation of Mineralogical and Geological Societies.

COMING UP!

February 15th: St. Croix Rockhounds club meeting is to be held at Stonebridge Elementary School at 7:15 pm. The program from last month was moved to this month. We will hold election of officers, the “Find of the Year” contest (see last month’s newsletter for the rules) and “Show and Tell”.

COMING ATTRACTIONS.

February 15th: St. Croix Rockhounds meeting at Stonebridge Elementary School at 7:15 pm

February 26-27th: Anoka County Gem & Mineral club Har Mar Mall Winter Show in Rosedale, MN.

March 15th: St. Croix Rockhounds meeting at Stonebridge Elementary School at 7:15 pm

March 19-20th: Eastern Federation Show in Athens, Pennsylvania

March 19th: St Croix Rockhounds show at the Valley Creek Mall in Woodbury, MN

April 30th: Cuyuna Rock & Mineral Club Show at the Westside Church in Aitkin, MN. For info call Keith at 218-226-4847

April 16-17th: Anoka County Gem club show at the Har Mar Mall in Rosedale, MN

June 10-12th: California Federation Show in Roseville, California

June: Rocky Mountain Federation show in Colorado Springs, CO

July 9-10th: Anoka County Gem club show at the Har Mar Mall in Rosedale, MN

August 5-7th : Northwest Federation show in Albany, Oregon

August 16-21st: MWF/AFMS Show in Saint Louis, Missouri.

Minutes of the Saint Croix RockHounds

January 18th, 2004

The meeting was brought to order at 7:16pm by Mike Frankenberg – vice-president, there were 14 members present.

There was no treasurer's report. There was no meeting in December, so there were no minutes to approve.

Next month we will hold election of officers.

Mike Frankenberg has changed shifts so will not be able to attend future meetings and is therefore, withdrawing from consideration for future office. Similarly, Shari Frankenberg is resigning as librarian. June Young volunteered to take home the library to hold for the next librarian.

Refreshments tonight were provided by June Young and Marie Newlander.

Sunshine committee (Marie) reports no new news.

Tonight's program is a presentation on Fossils by Mark Rasmussen with focus on South Dakota invertebrates.

Meeting was adjourned for the program at 7:20pm.

Respectfully submitted,
Susan Dustin, Secretary

Adine Zimmerman is now in a nursing home. Her address is: Presbyterian Homes of Roseville 1910 West County Road D Room 210A Roseville, MN 55112

The club will be sending her a card.

If you have news – good or bad - please call Marie at (651) 439-7809.



Celebrate!

February Birthstone : Amethyst

The ancient Greeks believed that this gemstone held many powers, among them protection against intoxication. In fact, the word Amethyst comes from the Greek word "amethystos," meaning sober. In ancient Greece, the gemstone was associated with the god of wine, and it was common practice to serve this beverage from Amethyst goblets in the belief that this would prevent overindulgence. Even today, Amethyst is considered a stabilizing force for those struggling to overcome addictive behaviors.

Once considered more valuable than diamonds, Amethyst is a member of the quartz family, occurring naturally as crystals within rocks.

February birthdays:

None

February Anniversaries:

Shari & Mike Frankenberg – 27th

Notes on tonight's program by Mark Rasmussen: the most prominent impressions I got are the importance of doing your homework before venturing out into the field looking for fossils and the large number of impressive fossils that can still be found in the field – amply illustrated by the examples Mark kindly brought to the meeting. Also, emphasized was the care required to preserve and prepare the fossils. Tools Mark uses include cyanoacrylates (glue), dental picks, Exacto knife and the Swam Blaster (air blaster) in which he prefers to use sodium bicarbonate rather than sand.

This is the list of references Mark brought to the meeting.

Collecting the Natural Wild: Legal Guide. 1997. By Donald Wolberg & Palsy Reinard. Geoscience Press in Tucson, AZ.

The Care and Conservation of Palaeontology. 1995. Edited by Chris Collins. Published by Butterworth Heineman.

Scaphith Ammonites of the Upper Cretaceous (Maastrichtian) Fox Hills Formation in South Dakota and Wyoming. 1993. By Neil Hilandmon and Karl Miwage. Bulletin of the American Museum of Natural History. Number 25. New York, NY.

Geologic Map of the Badlands National Monument and Vicinity, West-central South Dakota. 1976. USGS Miscellaneous Investigations Series.

Ammonites and other Cephalopods of the Pierre Seaway – an Identification Guide. 1997. By Neal Larson, Steven Jorgensen, Robert Farrar and Peter Larson. Geoscience Press in Tucson, AZ.

Report on the Geology and Resources of the Black Hills of Dakota with Atlas. 1880. By Henry Newton and Walter Jenney. USDI-US Geographical & Geological Survey. Washington GPO.

Three-Mile Wide Comet Makes an Impact *by Bruce Wingate from The Polished Slab 12/04*

The most famous impact site in the southwest is Meteor Crater, Arizona. Also known as Barrington Crater, this impact occurred about 50,000 years ago. The crater was discovered in the 1870s. It was first thought to be of volcanic origin and that the crater was produced by a steam explosion. However, in 1929, it was recognized as a impact crater. It is about 3100 feet in diameter and about 185 feet deep.

A recently discovered impact is much closer and older. About 370 million years ago, it is theorized that a comet impacted an area west of Alamo. It is known as the Alamo Impact Site and was discovered in the early 1990s. The original estimate of the diameter of the comet was about 0.6 miles. Latest research puts the comet at 3 miles wide and the crater at 45 miles wide and 1 mile deep.

The impact occurred during the Devonian Period (also known as the age of sharks) offshore of an ancient sea. It occurred about 3 million years before the mass extinction of the Late Devonian Period.

At that time, most of southern Nevada was covered by seas. Upon impact, tidal waves of about 1,000 feet were produced. These waves resulted in extensive damage from about 35 to miles to the surrounding area. The sea floor was ripped apart and the waves moved the broken sea floor and impact ejecta along the coastline. The east rim of the impact may exist along the west side of the Tempiute Mountains and the impact site is buried beneath volcanic flows. The center of the impact is about 20 miles northwest of Rachel.

There is very little direct evidence of the impact, but there is much indirect evidence. The indirect evidence is shocked quartz, spherical carbonate and iridium. Shocked quartz results from impacts and can be seen under a microscope. Spherical carbonates are formed from limestone that recrystallizes in the superheated cloud. Iridium is an element that is rare on earth, but appears to be abundant in comets and asteroids. Layers between geological periods contain this element supports impact theories. Iridium at this site has been found in a circular area about 120 miles in diameter.

Fossil teeth known as condonts have been used to establish the size and depth of the crater. Condonts are microscopic teeth of boneless eel-like animals that lived in these seas from 210 to 550 million years ago. The largest tooth found at the impact site was about ½". Most are considerably smaller. These teeth were found in the impact debris.

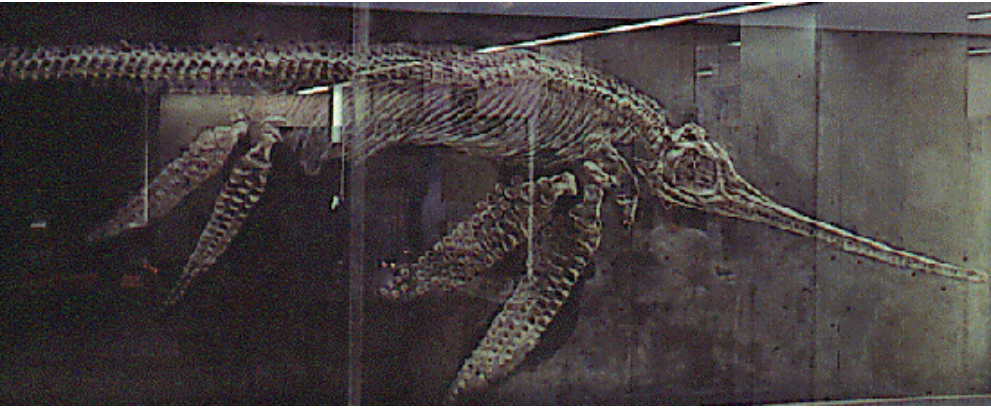
The majority of this research on the Alamo Impact Site was conducted by Charles A. Sandberg with the USGS in Denver, Colorado.

I recently visited the eastern edge of the site and obtained samples of the sea floor and possible ejecta. Samples of the sea floor contained various fossils including primitive sponges which were common then. The sea floor layer is prominent in the mountains. There were two spots where core samples were taken by researchers.

North of Elko is another impact area known as the Elko Meteorite Crater Field. In the field are about 206 craters that cover an area about 12 miles long and nearly 2 miles wide. They range in diameter from 16 to 820 feet wide and up to 12 feet deep. It is believed that these craters formed over 6,600 years ago; however, no meteors have been found at the site.

What is a Tektite? *from Unconventional Lapidarist 11/04 [edited]*

Tektites are commonly referred to as "space glass" since it is believed to come from outer space. The most popular theory on tektite formation is that they are fused glass that forms during the impact of a meteor or comet. The result of tremendous impact heat and pressure is fused glass. Their odd chemical makeup may result from the meteor and its unique chemistry. Because of its likeness to obsidian the same precautions should be taken in cutting tektites. But it would be hard to distinguish between a cut tektite and a cut obsidian so all you would accomplish is take away the tektites' uniqueness. However, the popular moldavite tektite (from the Ries crater in Moldavia, Germany) is distinctive because of its unique green color.



A heterocercal tail has a long upper lobe and a shorter lower lobe. Modern examples are the nurse shark and the leopard shark.

? And Answers: How did ichthyosaurs become extinct?

A: That question is actually one of the biggest mysteries in paleontology! In almost every way, ichthyosaurs seem to be better adapted for marine life than plesiosaurs or mosasaurs. They were more streamlined, faster swimming, and had well developed dorsal and tail fins. In bad light you could have mistaken an ichthyosaur for a shark or a swordfish. And yet plesiosaurs and mosasaurs seem to have survived right up until the very end of the Upper Cretaceous, while the ichthyosaurs died out in the Lower Cretaceous – probably around the end of the Albian, some 30 million years before the extinction event that wiped out the others. Why?

One possibility is that the newly evolving lamnid sharks were competing with them. Lamnids were (and still are) pelagic sharks with mackerel shaped bodies. The mako is a good example of a lamnid. Until the Cretaceous, most sharks were long-bodied reef dwellers with heterocercal tails. They couldn't sustain high swimming speeds over long distances and preferred to attack their prey from ambush. They wouldn't have competed with Jurassic ichthyosaurs, which were high-speed open sea hunters. But when lamnid sharks came along, they were competing for the same lifestyle as the ichthyosaurs. And the lamnid sharks had one major advantage: they didn't have to come to the surface to breathe. This might have made them more efficient predators, and gave them the competitive edge over the ichthyosaurs. It may be significant that the last of the ichthyosaurs, *Platypterygius*, was an ambush hunter and might have held out for as long as it did because it wasn't competing directly with the lamnids. *By Russell Hawley, Education Coordinator from Tate Museum Geological Times Nov/Dec 2004 via the Trilobite 1/05.*

Microscopic Diamond Found in Montana.

Tom Charlton saw a bright green rock, that was hard to miss, jutting through the prairie soil, and still couldn't believe his eyes.

It was a microscopic diamond embedded in kimberlite, the molten rock in which diamonds are found. The amazing thing was this was Montana! If more are found at the 80-acre site known as the Home stead property, the land could become the state's first ever commercial diamond operation... the only working diamond mine in the United States.

Currently, Canada has the only operating diamond mine in North America. Delta Mining and Explorations Corporation plans to begin large-scale exploration next month.

What is so unique about 'this' diamond? It is believed to be the first diamond ever found in Montana that was created there, rather than dropped in the state by a retreating glacier. The kimberlite was pushed to the surface by high-speed gas millions of years ago.

Because of its accessibility, Tom Charlton says, "It's the best site I've ever seen, and I've had quite a few mining properties." *from Muskegon Chronicle, 1-19-04 via MWF Newsletter 12/04*

Fossils in the arctic! The remains of a 75 million year old large meat-eating dinosaur have been found on a bleak mountainside on an island off the coast of Canada...the first dinosaur discovered above the Arctic Circle. It was embedded in stone, just north of Baffin Island, 400 miles north of the Arctic Circle.

The foot bones and teeth found on Bylot Island are described as those of a “tyrannosaurid”, a group that includes t-rex. There wasn’t enough material available to say what particular species it was. ...Paleontologists are theorizing that the rocks were deposited on the edge of the beach... The area has cliffs starting at sea level and rising 3,000 feet.. It’s a matter of ‘getting’ there. Most of the work is prospecting. *from Muskogon Chronicle 10/04 via MWF Newsletter 12/04*

The Sword and the Stone – Rock Shop and Renaissance Store is now open at 120 East Main Street in New Prague. Their phone number is 952-758-6885. *from Hidden Treasures 02/05*

Opal is not quartz even though its mineral composition is silicon dioxide. It is listed separately from quartz in the AFMS Mineral Classification List. *a synopsis of an article by B. Jay Bowman “Is it really quartz??” from the AFMS Newsletter 02/05*

Corn cobs in the tumbler: Wayne Davis uses ground up corn cobs and chromium oxide in a vibra tumbler to clean his silver and turquoise jewelry. John Frey says if you use corn cobs and rouge in a tumbler it also works great for cleaning gold jewelry. *from MWF Newsletter 9/04 via the Drift 10/04 via Achates 12/04*

For field trippers with no water, carry a can of shaving cream of push button type, for cleaning hands. A squirt, washing motion of the hands and wipe off *from MWF Newsletter 9/04 via the Drift 10/04 via Achates 12/04*

If your soft plastic safety goggles are scratched or foggy, try toothpaste and only a little elbow grease. It works super.. *from Golden Spike News 6/03 via Pick ‘n shovel 10/04 via Achates 12/04*

Things it took me 50 years to learn:

Never, under any circumstances, take a sleeping pill and a laxative on the same night.

There is a fine line between “hobby” and “mental illness”

People who want to share their religious views with you almost never want you to share yours with them

You should never say anything to a woman that even remotely suggests that you think she’s pregnant unless you can see the actual baby emerging from her at that moment.

A person who is nice to you but rude to the waiter, is not a nice person. This never fails. [a corollary is “the way a person treats his enemies is the way he will eventually treat his friends” –ed.]. *from “Good Ones” from Farm Show Paper via Agate Explorer 12/04*

Trim saw blades: trim saw blades can be worn or damaged by force feeding of slabs. An indication of too much pressure is a little dry area on the surface of the slab just in front of the blade. Sparks may also indicate too much pressure. An easy way to align the blade to the marked slab is to have the spray of coolant hit just outside the line. *from Oregon Rockhound 2/78 via Rock Rollers 08/04 via Emerald Gems 9/04*

Transparent stones should be polished on both front and back. Otherwise, saw marks can show through and appear to be cracks. *from Chips ‘n Splinters 6/04 via Emerald Gems 9/04*

When epoxying a small job, dip a tooth pick into the resin bottle and another toothpick into the catalyst bottle. Twist toothpicks together and you will have enough for the repair job. *from Emerald Gems 9/04*