



# THE MINERAL VEIN

## THE MINERAL SOCIETY OF MANITOBA NEWSLETTER

MAY 2008

The Mineral Society of Manitoba  
c/o The Manitoba Museum  
190 Rupert Avenue  
Winnipeg, MB  
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Home page:  
<http://www.umanitoba.ca/geoscience/mineralsociety/index.htm>

### 2007– 08 EXECUTIVE

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### Object and purpose of the Mineral Society of Manitoba:

“The object and purpose of Society shall be to establish and to conduct a non-profit, educational organization to promote, to enjoy, and to develop the study and practices of the various phases of mineralogy and related earth sciences.”

The above is an excerpt of our constitution. Constitutions tend to be dry reading but they always contain interesting bits of information. Copies of the constitution will be available for picking up at our next meeting.

Meetings are held on the first Wednesday of each month from September to May inclusive at the Manitoba Museum in room P47 on the Planetarium level. They begin at 7:30 PM and feature announcements, an invited speaker and a draw.

Members are encouraged to bring along any new, interesting specimens or specimens appropriate to the speaker's topic.

Field trips take place from May to September to interesting sites in Manitoba, neighboring provinces and states

### CLUB MEETINGS



Mineral Society of Manitoba  
Winnipeg Rock and Mineral Club  
2008 Field Trips

Gary Henes (Field Trip Coordinator, Mineral Society of Manitoba), Mike Mirus (Field Trip Coordinator, Winnipeg Rock and Mineral Club), Jack Bauer (President, Mineral Society of Manitoba) and Jacques Bourgeois (Public Events Coordinator from Oak Hammock) have combined their resources to organize an exciting season of events and field trips to popular collecting localities.

There is a minimum and a maximum on a few trips please be advised by the field trip leader.

Regarding fieldtrips requesting registration, please do so early and avoid disappointment.

Last year, the weather was a significant factor, and we found it necessary to post pone, change or cancel a particular trip, so please keep in touch in case of last minute unforeseen changes.

Come to the \*East Side Eagles Club House, at 909 Concordia Avenue\* between the EK Pool and Kildonan East Collegiate.

We will provide, Barbecues, parking, wash room facilities, picnic tables and bleachers, hot dogs, hamburgers, buns, basic condiments, serviettes, cutlery, plates, ice and the space.

**For more information contact Matthew Leitch @ 229-9961 or Jack Bauer @ 632-6934**

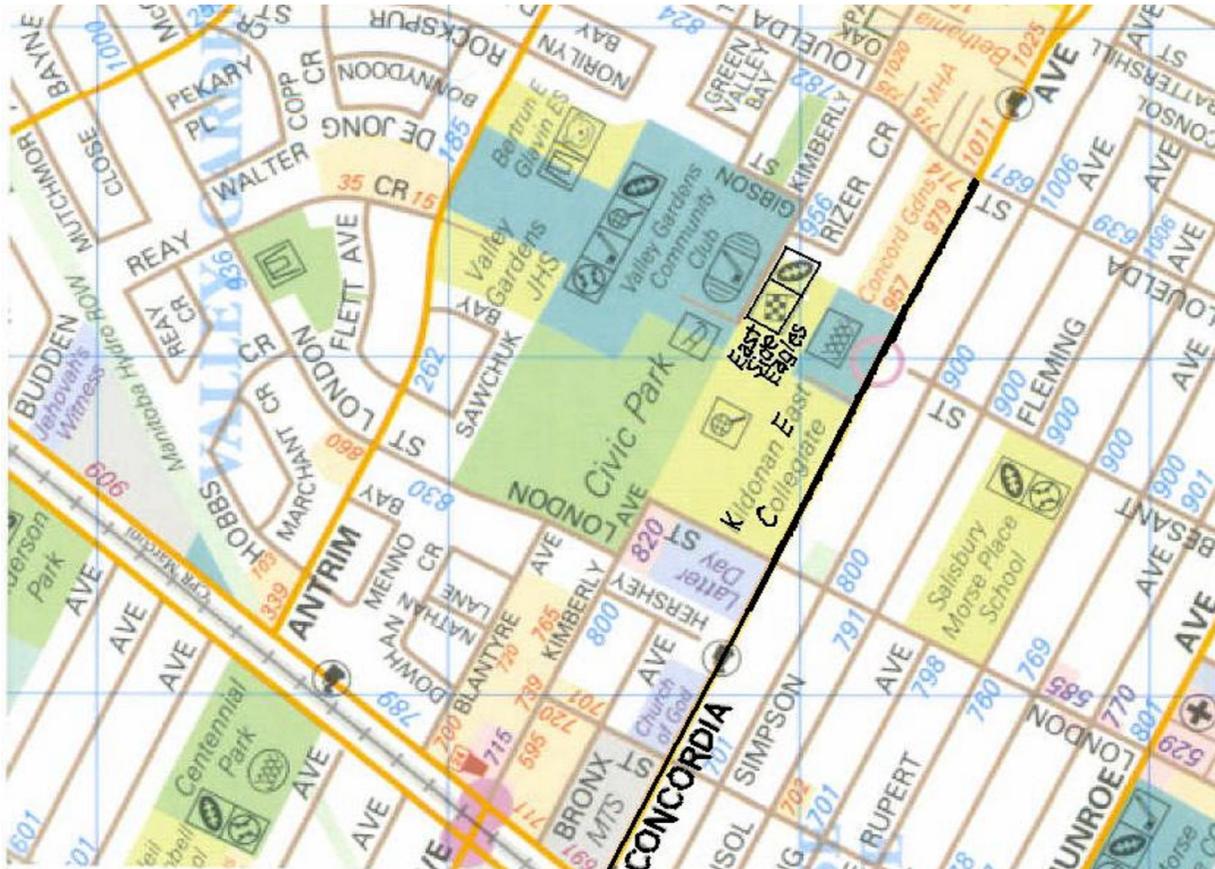
See map below

Support your club. AND HAVE FUN

**1. \*Mineral Society of Manitoba and  
Winnipeg Rock and Mineral Club  
BBQ & SWAP MEET\***

**June 1, 2008, 3:00 pm**

Bring what you can, Minerals, Fossils, Special Creations, Refreshments, Stories, Special Recipe or Treat and your Social Spirit.



**2. Thunder Bay, Ontario  
June 28, 29, 2008**

Departure from Winnipeg, is scheduled for Friday June 27, at your convenience.

Meet Brian at 9:00 AM, Saturday, at the Terry Fox Look out, East side of Thunder Bay, for two days of collecting fun. We will then provide you with the weekend itinerary; a BBQ or dinner is yet to be determined.

Call the Old Country Motel for reservations @ 1-800-454-7658. Book early to avoid disappointment. The July long weekend will be busy. This trip will surely satisfy the Amethyst collector in you. We will need a minimum of 12 people for this trip to be a go.

For more information, Contact Brian Bilcowski, @ 233-1270

**3. Sunbeam Mine Gold Mine and area  
Near Star Lake, this trip is subject to pre trip confirmation.**

**July 12 2008**

Here the gold is associated with quartz stringers. Gold distribution is erratic, with or independent of sulphides. The mineralization consists of pyrite, arsenopyrite, with minor amounts pyrrhotite, sphalerite and galena. This site is a field trip study stop on the U of M ED GEO Course. With a little luck, and a good quality metal detector, the possibility of finding VG is good but not guaranteed. I will confirm this trip, after a pre-trip to determine accessibility. Bring the necessary Eye protection and a lunch.

Departure will be 8:00 AM, From Canadian Tire Parking Lot, Bishop Grandin and Lakewood Shopping Center. Parking available in Parking Lot close to Bishop Grandin Highway, for those doubling up.

For more information please contact Mike Mirus @ 831-2998 Or Jack Bauer at 632-6934.

**4. Gypsumville Crater and area  
Gypsumville, Manitoba  
July 26, 2008**

This trip will be co-led by James Bamburak from the Manitoba Geological Survey. This trip will involve a number of stops in the crater area. We would like to keep the vehicles to a minimum and would like members to double up where possible and share expenses. Four to six vans, trucks or SUVs will, compliment our mobile group nicely (Max capacity 20 participants).

Mr. James Bamburak from the Geological Survey of Manitoba has volunteered to lead this trip

as long as we can co-ordinate with his schedule. Last year this trip was cancelled due to wet accessibility concerns. So far the weather is looking promising. We will visit other Ordovician and Silurian out crops in the neighbourhood, if the centre of the Gypsumville crater remains inaccessible. This will be determined by a pre trip.

Departure will be 6:30 AM, From Jacks Place 326 Egeesz Street. Parking available. Please register w/ Gary or Sherri Henes at 275-7883

**5. Red River Flood Way to collect Selenites  
5-15 days potential?  
Date to be determined, July or August?**

This trip will involve a lot of digging, so good shovels will be needed. Bring wood skewers or thin metal rods to probe the clay for selenites. Selenite crystals have a hardness of 2 and are very fragile. Bring proper packaging, like soft paper towels and cardboard trays to protect your finds. Proper cleaning procedures will be explained on site. A pick order will have to be discussed, in all fairness, to those who do the most work, when it comes to the best specimens found.

\*Tentative- the Floodway- those who are interested in this trip, please contact Mike Mirus at 831-2998 or 783-7456, when the opportunity presents itself, you shall be called and given details.

**6. Morden, Manitoba  
August 09, 2008**

Depart from the FORKS at 8.30 am or Meet at the Canadian Fossil Discovery Centre at 10:30 a.m. in Morden MB. A \$5 fee will cover a guided tour of the museum and the dig.

Step back in time some 80 million years and explore what Manitoba's wild life used to look like. For more information, contact Mike Mirus 831-2998 or Jacques bourgeois at 467-3282

**7. Stony Mountain Field Trip  
Oak hammock Archaeology, Mineralogy  
Weekend**

September 20, 21, 2008

Meet at the Stony Mountain quarry for 9:00 a.m. in front of Stony Mountain, just off the high way.

Explore the quarries of Stony Mountain for fossils from the late Ordovician period. Many

fossils abound, including brachiopods, corals (horn and honeycomb), cephalopods, and molluscs.

Those with a keen eye can also find trilobites/pieces. This field trip coincides with the Oak Hammock Marsh annual Archaeology, Rocks and Mineral Show and is a morning trip only, in order to allow participants, in the afternoon, to be dazzled by the beauty of minerals and fossils from around the world. Take in displays, films, gold panning and silent rock auctions at the show, in the afternoon.

For more information & sign up, for the Stony Mountain trip, contact Jacques Bourgeois at 467-3282. Pre-registration is required by September 12, 08.

### **General Information and safety concerns about Field Trips**

1. If weather conditions become unfavourable, contact Field trip coordinator
2. Keep in touch, in case of unexpected changes
3. Advise Fieldtrip co-coordinator of any health conditions and concerns, eg. Poor hearing or allergies to bee stings.
4. Register in advance, for the field trips that request it.
5. Contact the field trip coordinator for more information or if your plans unexpectedly change.
6. Some field trips have limited spots available.
7. Be prepared to sign a liability waiver
8. Prior to every "in the field" portion of the trip please gather to the fieldtrip leader for information and safety concerns for site-specific areas.
9. If you are unfamiliar with the location or directions, please advise the field trip coordinator. We will provide a map or directions. Travel near the front of the line, as there is a less chance of being separated from the group.

### **Safety equipment, When attending a field trip:**

1. Protect yourself, bring and wear safety glasses and safety boots
2. In Hard Rock country, pieces of rock can fly and hit you in the eye, when struck with a heavy hammer.

### **Things to bring with you:**

1. Lunch and drinking water
2. Bug repellent and sunscreen
3. Hammers and chisels
4. Safety glasses, safety boots
5. Field lens or magnifying glass
6. Collecting bags and news paper/towels to protect your find
7. Notebook (to record locations and geological notes)
8. Camera, film, and your sense of adventure
9. Have Fun, be Safe and Good Luck on our 2008 Fieldtrip season.

**Have Fun, be Safe and Good Luck on our 2008 Fieldtrip season.**

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### **Message From The President**

I would like to say a BIG, THANK YOU to all those members that came out and supported the Mineral Society with their valuable time. Thank You to Chris Lammers for donating the Dinosaur bone, and fossilized wood pieces.

Those who helped to collect Stony Mountain fossils, Thank You: Chris Lammers, George Green, Marjorie Turton, Marion Foster, Will and Evelyn Grieves, Jack Bauer.

Thank You, to Jerry Bengner, from energy and Mines stores, for supplying glue card minerals and crushing them for us.

Thank You, to Bob and Mary Ann Kurz, for breaking up and sorting the dino bone, fossilized wood and quartz.

Thank You, to George Green, Chris Lammers, Yvonne and Bill Searle, Marjorie Turton, Marion Foster, Ron and Wendy Anthony, Bob and Marianne Kurz, Mike Mirus, Tina Chan, Lyn Spigelman, Ken Fumerton, Will and Evelyn Grieves, and Jack Bauer in conjunction with S.T.E.M. for helping The FORKS fund raiser be, the success that it was.

Thank You, to Marjorie Turton, with every thing you have been through, for doing such a fine job on the news letter.

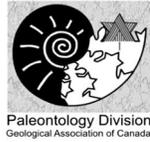
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**September 3** Our Fall Programme starts with Speaker Lori Stewart with topic her research done on Gillies quarry. Lori was a past recipient of a MSM bursary.

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**CPC-2008**  
**The 18<sup>th</sup> Canadian**  
**Paleontology Conference**  
**Winnipeg, Manitoba,**  
**September 19<sup>th</sup> – 21<sup>st</sup>, 2008**



The autumn business meeting of GAC Paleontology Division is planned for the late afternoon of Saturday, September 20<sup>th</sup>.

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The Mineral Society Of Manitoba has voted to provide \$500 sponsorship for geological students, to attend this conference. As a result of our sponsorship the conference is able to offer the first 10 student presenters to register a \$100 registration fee reimbursement.

After 20 years, the Canadian Paleontology Conference returns to Manitoba. The Geological Association of Canada's Paleontology Division, in association with the Manitoba Museum, is pleased to present the 18<sup>th</sup> Canadian Paleontology Conference in Winnipeg from September 19<sup>th</sup> to 21<sup>st</sup>.

This conference will be located at the Manitoba Museum, Manitoba's largest heritage facility, which is in central Winnipeg. A full-day field trip will permit us to visit the classic fossilrich Ordovician sites in the Winnipeg area.

Oral presentations and posters related to all aspects of Paleontology are welcomed. Students are strongly encouraged to attend and to present. The T.E. Bolton Award will be given for the best student paper.

### **Venue**

The technical sessions will be held in the auditorium and classrooms at the Manitoba Museum.

We also plan to hold the icebreaker event at the Museum. The banquet will take place in a downtown hotel.

The Manitoba Museum ([www.manitobamuseum.ca](http://www.manitobamuseum.ca)) is located within easy walking distance of Winnipeg's downtown hotels and restaurants. The Museum is renowned for its synthesis of human and natural heritage themes. Its eight galleries explore the history and environments of Manitoba from north to south.

### **Schedule**

Friday, Sept. 19<sup>th</sup>: Full-day field trip to Ordovician localities in the Winnipeg area.

Friday evening, Sept. 19<sup>th</sup>: Icebreaker event.

Saturday, Sept. 20<sup>th</sup>: Technical sessions; conference banquet in the evening.

Sunday, Sept. 21<sup>st</sup>: Technical sessions (morning).



### **Dr Jim Teller & Glacial Lake Agassiz**

**On May 7, 2008:** (last meeting) we had the pleasure of Dr Jim Teller, Dept Geological Sciences, University of Manitoba presenting "Lake Agassiz".

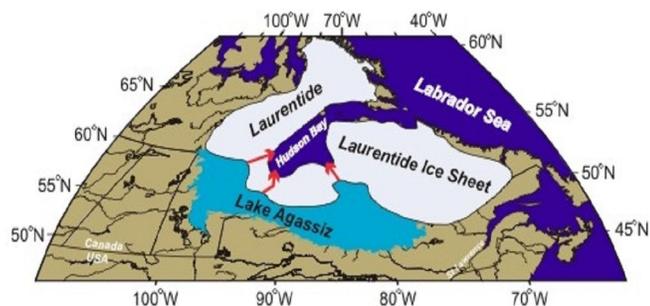
He came in 1970 to examine the gumbo in Manitoba. He began to speculate as to what effect Lake Agassiz had on the world.

During the deglaciation of the Northern Hemisphere, which started around 20,000 years ago and ended around 8,000 years ago, giant lakes formed at the edges of ice sheets in North America and Eurasia. Some of these lakes were dammed by the disappearing ice sheets and on some occasions these dams failed, producing gigantic floods. The largest of these lakes was Glacial Lake Agassiz ice dam dammed by the waning Laurentide Ice Sheet.

Although short-lived (~12,000 - 8,000 BP), this lake was vast, covering nearly 1 million km<sup>2</sup> with a drainage basin extending from the Arctic Ocean, to the Gulf of Mexico and the Atlantic Ocean (Figure 1). In central Manitoba - the deepest portion of the Agassiz basin - water depth exceeded 200m!

Glacial Lake Agassiz was formed 11,500 years ago from the meltwaters of a massive ice sheet that had previously covered all of Manitoba. At its maximum, the lake was larger than any other on the continent, covering in total more than 500,000 square kilometres of Manitoba, Saskatchewan, Ontario, North Dakota and Minnesota. It was the largest body of fresh water in the world. At times it held more water than all the present world's fresh water lakes. During its 5,000-year history, Lake Agassiz rose and fell several times with advances and retreats of the glacier and the opening and closing of various drainage

channels. Whenever the lake stabilized for a time, waves created low cliffs and beach ridges which are still visible



These beach ridges are like rings around the bathtub. Around the town of Arden there were found 68 beaches. The beaches are on the southern area of the lake whereas ice was on the north. All these beaches are deformed by different isostatic rebound. Not all of these bathtub rings are the same height. There have several glacial spills from this lake region.

At times there was an eastern overflow to become the great lakes. In the west Lake Agassiz carved out the Athabasca River and 200 meters of overburden enabling the tar sands adventure.

During the last deglaciation, Lake Agassiz spilled out of 17 outlets, the largest being 100 m wide and 100 m deep. Winnipeg would have been under 200 m of icy water. Huge boulders, 2 to 3 m in diameter, were washed down towards the Lake of the Woods. A sudden 100 m drop in lake levels sent 163,000 cubic kilometers of fresh water – about 30% more water than is contained in all of the world's lakes today spilled northward through Hudson Bay into the North Atlantic. This raised the level of oceans 0.5 m. The shore lines would have moved inland 1 K to 12 K. Can this be the "Flood" many cultures speak about? Then the world climate cooled.

Previously (11,000 years ago) the earth was warming gradually, and then it suddenly cooled for 1,000 years, the Younger Dryas.

Evidence of abrupt climate change comes from all manners of sources (glacial deposits, tropical and polar ice caps, pollens, lake and marine sediments, tree rings, corals, etc.). It is best seen in the Greenland's ice cores, although it had very marked consequences over Europe, North America, and as far as New Zealand.

What was the mechanism of cooling? Meltwater is lighter than the salty oceans.

Therefore it would float on the surface and travel along the shore lines. The thermohaline circulation would have dragged the fresh water to the north where further cooling of current would sink both fresh water and salt water. This would move back to equatorial waters and circle again. The isotopic composition of seawater in the Gulf of Mexico fluctuated substantially during deglacial time, and this is attributed to the changing sources of meltwater from the Laurentide Ice Sheet. Of course some people still argue the validity of the Younger Dryas theory.

It is interesting that meltwater from the Laurentide Ice Sheet produced Glacial Lake Agassiz which cooled the earth for a hundred years, raised the level of the oceans and contributed (perhaps) to the epic of **Gilgamesh** and the story of "The Biblical Flood".

Interesting to note, the northern land is rebounding, going up, while river and lake water is moving south. The land is still affected by the glacier and Glacial Lake Agassiz.



### Notice

This is the second last paper to be prepared by Marjorie Turton.. September's publication will be my last. It is time for new ideas.

Thank you, members of Mineral Society of Manitoba for an interesting adventure.

The Mineral Society of Manitoba has purchased this selenite crystal. It will be given to the Manitoba Museum for its collection of Manitoba Minerals.

Photo by John Biczok.



The Mineral Society Of Manitoba has voted to provide \$500 sponsorship for geological students, to attend this conference. We also have a photo of the awarding of a check of \$500 to Graham Young. Presenting is president Jack Bauer and Vice President Marion Foster. Photo is courtesy of John Biczok.

