



# THE MINERAL VEIN

## THE MINERAL SOCIETY OF MANITOBA NEWSLETTER

April 2007

The Mineral Society of Manitoba  
c/o The Manitoba Museum  
190 Rupert Avenue  
Winnipeg, MB  
R3B 0N2  
Published monthly from September to  
June  
Home page:  
[http://www.umanitoba.ca/geoscience/  
mineralsociety/index.htm](http://www.umanitoba.ca/geoscience/mineralsociety/index.htm)

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### Society News

Dues are \$10/year (\$15 for families) and are payable at the October meeting or by mail during October.

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

#### Wednesday, May 2, 2007

Martin Lewadney is unable to do the scheduled presentation.

John Biczok has kindly consented to give a presentation on Wednesday, May 2.

John Biczok, a MSM member, is Senior Exploration Geologist at the Musselwhite Mine,

His presentation is on the Two Mineralogical Treasures of Montreal - Mt. St. Hilaire and the Redpath Museum".

Anyone with samples from Mt. St. Hilaire is encouraged to bring them along to show everyone

After John's presentation the rest of the scheduled time will be for mineral identification. Something that could be fun, John Biczok offered to help out with mineral identification. **Members are encouraged to bring a few unidentified specimens.** The Mineral Society Of Manitoba can certainly use some of his expertise to identify some of our mysterious samples.

John would also like to speak to the members for about 5-10 minutes about his ideas on a possible change of direction in regards to fund raising and donations.

**This is the final meeting of the season. The next meeting will be the AGM in the fall.**



**Sean Robson, Paleontologist was our speaker.** during our penultimate meeting Wednesday, April 4,

He gave us an abridged version of his publication to **Lethaia** entitled **“Predation of Late Marjuman (Cambrian)**

**linguliformean brachiopods from the Deadwood Formation of South Dakota, USA”.**

Fossil evidence of predation, particularly in the Cambrian, is sparse and limited to shell perforations and breakages, coprolites, and trace fossils. However borings in shells of *Cloudina* extend the fossil record of predation back to the latest Neoproterozoic.

Cambrian prey taxa, for which direct fossil evidence of predation exists, are those of linguliformean brachiopods. These are very small creatures to begin with, 20 to 50  $\mu\text{m}$  in diameter. Predatory boreholes have been reported in modern lingulid, so why not in these ancient ones.

To date, no predatory boreholes have been reported from these fossil lingulids. Even among modern ones, boreholes are very rare.

Contrary to previous indications, predation on phosphatic brachiopods was a locally significant ecological phenomenon in certain Cambrian setting.

Predators left two types of perforations: circular holes with a sharp, non-beveled exterior edge with chipped interior edges and irregularly shaped holes with chipped interior edges.

The chipped margins on the valve interiors, suggested that penetration was made from the outside. Also, in most of the specimens, there was

only a single hole per valve, which leads support to a predatory hypothesis. The holes were probably made in live shells, killing the animal.

In attempting to simulate the types of perforations seen in the linguliformean valves, holes were made in the shells of hardboiled eggs.

Modern analogues are:

Gastropods, they bore into shells by applying their proboscis to the surface of a shell and scraping with a radula, often using an accessory organ which secretes an enzyme softening the shell;

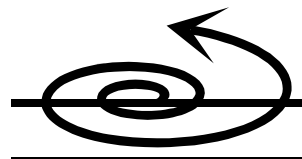
Celphalopods, bore into shells using a salivary papilla. Digestive enzymes are secreted through the borehole and the partially digested tissues are consumed.

Nematods, parasitic worms, have a large buccal cavity with powerful teeth or plates or a long lance-like stylet to pierce the prey and inject digestive enzymes. Such an attack would be representative of the piercing percussive mode.

Boring and percussion holes were duplicated in the hard-boiled eggshells. There were possible predators of brachiopods, existing in that time frame, which could produce the same types of holes exhibited in the linguliformean brachiopods. Identification of predators could be difficult if not impossible in that many were probably soft bodied and unlikely to be fossilized. Yet educated guesses can be made.

*Yohoia tenuis*, from the Burgess shale, similar to modern stomatopods may have employed a similar method of attacking prey. Some genera of the Gondactylidae Stomatopod can make smashing percussive attacks with their dactyl closed. When dactyl unfolded they make piercing percussive attacks.

We thank Sean for sharing his publication with us. It is certainly thought provoking. As one of our members said, usually we view predators as large and aggressive. Who would have thought of the battle that goes on such a miniature scale.



## Don't Forget our field trips

**Remember which trip you signed up for. If you don't remember contact Jack Bouer or Jacques Bourgeois**

### 2007 Field Trips

Jacques Bourgeois (Field Trip Coordinator, Rock and Mineral Club & Mineral Society of Manitoba), Brian Bilcowski (Program Coordinator, Rock and Mineral Club) and Jack Bauer (President, Mineral Society of Manitoba) have combined their resources to organize an exciting season of trips to popular collecting localities. Other clubs have been invited and are welcome on our field trips. However, if we reach our maximum numbers, priority will go to MSM and WRMC paid up members. On fieldtrips requesting registration, please do so early and avoid disappointment. For various reasons beyond our control, but most likely regarding weather, we found it necessary to post pone or cancel a particular trip, so please keep in touch.

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#### 1. Gold in Bisset area, - April 28

Here the gold is associated with quartz veins. With a little luck, and a good quality metal detector, the possibility of finding VG is good. I will confirm this trip, after a pre-trip to determine accessibility. Eye protection will be necessary for this trip and bring a lunch.

*Please register with Jack Bauer 632-6934. ...Departure is 7AM from??*

#### 2. Gypsumville Quarries, Gypsumville, Manitoba - June 23

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. We are considering renting a 15 pass. Van/bus. If ten people would be interested in sharing expenses and driving duties on the return trip. Two or three vans or suvs will then compliment our mobile group nicely.

*Please register w/ Jack Bauer 632-6934..departure is 7AM from ??*

#### 3. Thunder Bay, Ontario – June 29 to July 2nd, 2007 - TBD

Departure from Winnipeg; is scheduled for Friday, at your convenience, June 29, 2006.

Meet Brian at 9AM, Saturday, at the Terry Fox Look Out, East side of Thunder Bay, for two days of collecting fun. He will then provide you with the

weekend itinerary, including a barbeque for only \$12.50 per person.

Call the Old Country Motel for reservations @ 1-800-454-7658. Book early and avoid disappointment. The July long weekend will be busy. This trip will surely satisfy the Amethyst collector in you.

This is Hard rock country, so please bring adequate eye protection.

*For more information, contact Brian Bilcowski 233-1270*

#### 4. Tanco Mine, Bernic Lake, Manitoba –July 14

Departure to Tanco, is from the Forks, at 8:30 am. For many years, the Tanco Mine trip has been a favourite from Winnipeg's rock hounds. In recent years, the picking has been somewhat less than fruitful, since Tanco has not brought any new material, to the surface. After discussing with the chief geologist, I decided to try to go again this year, with hopes, that new material will be brought up to the surface. This summer, when the machinery comes to the surface for maintenance, they will try to bring some new material to the surface. The Bernic Lake deposit is one of the largest rare element bearing deposits in the world and contains two thirds of the worlds known reserves of pollucite. Black tourmaline, beryl, spodumene, lepidolite and feldspar are also abundant at this mine.

*For more information, contact Jacques Bourgeois at 467-3282.*

#### 5. Snow Lake, Manitoba – August 4 to 7<sup>th</sup>.

This trip we will explore the Anderson lake shoreline for Garnets, Staurolite and Kyanite crystals. We will also explore the Wekusko Kimberlitic (?) zone. Our stay will be at the Blue Nose, in Snow Lake, unless otherwise requested. A pre-trip and member enthusiasm will determine if this trip is a go.

*Contact Jack Bauer 632-6934 for more information. Departure will be 7AM, from ??*

#### 6. Morden, Manitoba – August 11

Departures are from the Forks Travel Centre at 8:00 a.m. or meet at the Canadian Fossils Discovery Centre at 9:30 a.m. A \$5 fee will cover a guided tour of the museum and the dig.

Take a trip back in time as we explore the ancient seabed of the Cretaceous that once covered Manitoba in search of mosasaur and plesiosaur fossils. The area around Morden is also rich in other minerals such as jarosite and selenite.

*For more information, contact Jacques Bourgeois at 467-3282.*

## 7. Wilson River, Manitoba, - September 1

Departure is from Salisbury House in Headingley (Perimeter Hwy) at 7.00 a.m.

I would suggest we double up, for approximately 3.5 hours drive, north to Dauphin, to save gas expenses.

This trip is weather sensitive; high water levels will be bad; low water levels will be good for collecting.

This small river starts in the Duck Mountains, and flows East, North of Dauphin and then draining into Dauphin Lake. In its travels Eastward, it exposes the northern edge, of the Ashville and Favel Formations. Here we will explore for Cretaceous fossils. We will look for Inuceras shells, fish fragments (teeth or scales), Plesiosaur and Mosasaur (teeth or vertebra). Down stream, we will visit the exposed contact of the Ashville and Favel Formations. **For more information, call Jack Bauer at 632-6934**

## 8. Stony Mountain, Manitoba – September 15 and 16

Departure is from the Forks Travel Centre at 8:00 a.m. or meet at the Stony Mountain quarry for 9:00 a.m.

Explore the quarries of Stony Mountain, consisting of limestone and dolostone formed during the late Ordovician period. Many fossils abound, including brachiopods, corals (horn and honeycomb), cephalopods, and molluscs. Those with a keen eye, although not as common, 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 to take in the mineral displays and rock auctions at the show in the afternoon. **For more information, contact Jacques Bourgeois at 467-3282.**

### General Information about Field Trips

If weather conditions become unfavourable, contact Fieldtrip Coordinator

- Keep in touch, in case of unexpected changes
- Register in advance, for the field trips that request it. Contact the field trip coordinator for more information or if your plans unexpectedly change.
- Some field trips have limited spots available.
- Be prepared to sign a liability waiver

### When attending a field trip:

- Protect yourself; wear safety glasses and safety boot
- 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:

- Lunch and drinking water
- Bug repellent and sunscreen

- Hammers and chisels
- Safety glasses, safety boots
- Field lens or magnifying glass
- Collecting bags and news paper/towels to protect your find
- Notebook (to record locations and geological notes)
- Camera, film, and your sense of adventure

## **Have Fun, be Safe and Good Luck on our 2007 Fieldtrip season.**

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## **MINERAL SOCIETY OF MANITOBA INSURANCE**

Here is a brief summary of our basic insurance coverage and history, that all may better understand the benefits available to Mineral Society Members.

Before, the new millennium, we did not have the peace of mind, insurance coverage can bring for members and executives. This changed when the Mineral Society joined up with Energy and Mines, when they host their promotional events. This mutual support brings in much needed revenue, offers exposure opportunities, as well as covers our insurance premiums, which is approximately \$500.00 annually. This gives us basic \$1,000,000.00 liability coverage. We may want to consider increasing this to \$2,000,000.00 in the future, to cover inflation. The coverage extends to: The Forks, Convention Center, Oak Hammock, The Manitoba Museum, U of M and on our fieldtrips etc. We have coverage when visiting rock quarries and mine sites. My understanding is, as Richard from “Dowling Insurance” explained, we have coverage wherever our fieldtrips may take us. This insurance policy is standard and basic and will work with any other coverage we may have, privately or by employer.

### **Executive Meeting** MSM 6:30 pm

#### Agenda

Provincial Mining Week May 24 to May 26  
Financial report  
Inventory of assets – Keep/disperse?  
Changes in Mandate?  
Permanent Manitoba Mineral Display at Museum?  
Oak Hammock Mineralogy weekend

Here are some pictures of Selenite crystals in the Naica mines, Chihuahua, Mexico. Pictures kindly sent to MSM



These are definitely a lot larger than the ones we have in Manitoba.



This is the crystal cave of giants found in the Naica Mine, Chihuahua, Mexico.

These are Selenite crystals (gypsum) and are the largest crystals ever discovered.

They are a 1000 feet down in a limestone host rock where they are mining for lead, zinc and silver.

The crystals were formed by hydrothermal fluids emanating from the magma chambers below.

The miners had to drill through the Naica fault, which they were worried would flood the mine, and this is what they discovered.

## IMPORTANT NOTICES

Yvonne is contact person for Mining Week volunteers at the Forks, May 23 & 24. Set up time 2:00 pm, Wednesday, Thursday 9:30 – 4:00. Please Volunteer!

There was a work bee in preparing specimens for Mining Week on April 21. Jacque Bourgeois kindly offered his garage as a place for the work bee. There was a good turn out. Much work was accomplished. .

Please keep these insurance mutual benefits in mind, when we ask for membership support through volunteerism, that The Mineral Society of Manitoba may fulfill its obligations.

**Because of commitments and health matters it will be necessary to find a replacement next season for the Mineral Vein editor.**



# Mineral Society of Manitoba

## T Shirts for sale.

**\$5 each, plus handling charges**

These are from previous symposiums:

- 6 M black & gold shirts from the gold symposium
- 5 XL blue & white from the diamond symposium
- 16 L blue & white from the diamond symposium

**Call Yvonne Searle at 204 663 6637 to order**