



# THE MINERAL VEIN

Official Newsletter of

**THE MINERAL SOCIETY OF MANITOBA**

**SEPTEMBER 2017**

## FIELD TRIP SEASON REVIEW

By Jacques Bourgeois

According to meteorologists, Manitoba had one of the best summer seasons on records in terms of weather and this translated into a very successful mineral collecting field trip season for us.

Our first trip of the year, to the Gillis Quarry on June 6, was well attended and several Ordovician fossils such as sunflower corals, brachiopods, gastropods and cephalopods were found.

The Souris gravel pit trip on July 8 was also well attended with nearly 20 members and a beautiful sunny day for collecting agates, petrified wood and other varieties of stones.

Our Morden trip, held on Saturday July 22, included a visit to the Canadian Fossil Discovery Centre as well as a fossils dig (mausosaurs, plesiosaurs, etc) and a search for selenite crystals. The weather held up for most of the day but some scattered showers cut our selenite collecting short. The tour of the Discovery Centre by **Victoria Markstrom**, Field and Collection Manager, was excellent and we even found some fish and mausosaur vertebrae during the dig.

Our last trip of the summer was a tour of two Interlake quarries (Lily Bay and The Narrows) on August 26 in search of Devonian fossils. We were fortunate to have the very knowledgeable and enthusiastic **Kathryn Lapenskie**, Geologist at the Manitoba Geological Survey, as a tour guide. Several fossils were found at both quarries including part of a fish fossil that made Kathryn very excited.

The signature trip of the summer was definitely the Winnipeg Floodway dig that took place at the beginning of August. This was an extensive undertaking spread out over the course of several days and I must recognise **Jack Bauer's** hard work and perseverance for tackling this one.



Ken Fumerton holds up a pair of selenite crystals.  
WAYNE GLOWACKI / WINNIPEG FREE PRESS

## DIGGING IT

By Kevin Rollanson (Winnipeg Free Press, 14/08/17)

There's a temporary mineral rush occurring in Manitoba, but these prospectors aren't looking for gold.

They're looking for something they haven't been able to find for almost a decade — selenite crystals.

Instead of going down a mine or swishing water at the side of a creek with a pan, these rockhounds are digging into the side of the Red River Floodway with spades and garden trowels and probing into the thick clay with straightened coat hangers.

They're looking for selenite crystals, which are also known as Manitoba diamonds. These crystals can be found elsewhere, but the ones coming out of the floodway are known around the world because of how clear they are. Some are milky coloured, while others are yellow.

**(Continued on page 3)**

## THE MINERAL SOCIETY OF MANITOBA

c/o The Manitoba Museum  
190 Rupert Avenue  
Winnipeg, MB, R3B 0N2

[mineralsocietyofmanitoba.weebly.com](http://mineralsocietyofmanitoba.weebly.com)

### *The 2016-2017 Executive:*

#### **President**

Jacques Bourgeois, *ph.* 204-885-5618

#### **Vice President**

Marion Foster, *ph.* 204-775-0625

#### **Secretary:**

Marjorie Turton, *ph.* 204-775-0625

#### **Membership / Treasurer:**

Lisa Grabowski, *ph.* 204-774-5097

#### **Field Trip:**

Marion Foster, *ph.* 204-775-0625

#### **Newsletter Editor:**

Jacques Bourgeois, *ph.* 204-467-3282

#### **Website:**

Josh Myers, *ph.* 204-330-0076

#### **Members at Large:**

Jack Bauer, *ph.* 204-632-6934

Chris Lammers, *ph.* 204-488-0087

Yvonne Searle *ph.* 204-663 6637

#### **School Programs**

Yvonne Searle, *ph.* 204-663 6637

*The Mineral Vein* is published monthly from September to June.

**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 raffle. 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 or neighbouring provinces and states.

**Membership:** A single membership is \$15 while a family membership is \$20. Memberships run from October to October.

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### UPCOMING EVENTS

**September 6, 2017:** MSM regular monthly meeting begins at 7:30 p.m. at the Manitoba Museum. Our guest speaker this month will be **Scott Falkingham** from the **Speleological Society of Manitoba**.

The Speleological Society of Manitoba is a caving organization involved in the exploration, research and conservation of caves and karst in Manitoba. During its 25+ years in existence, they have catalogued over 200 caves in Manitoba. The search is far from over, as new caves continue to be discovered on a yearly basis.

**October 4, 2017:** MSM regular monthly meeting and AGM begins at 7:30 p.m. at the Manitoba Museum. This is our **Annual General Meeting and Election** night. It is followed by a **Show and Tell**. Please make sure to bring some of the great specimens collected your summer field trips.

**November 1, 2017:** MSM regular monthly meeting begins at 7:30 p.m. at the Manitoba Museum. Our guest speaker this month will be announced shortly.



Founded in 1971, the Mineral Society of Manitoba is dedicated to promoting the study of minerals, rocks and fossils for their scientific and recreational value.

The Mineral Society of Manitoba hosts monthly meetings covering a variety of mineral related topics. In addition, the Mineral Society organizes summer field trips to collecting localities, and hosts educational exhibits about minerals and fossils.

## DIGGING IT! (CONT.)

Bob Kitlar and Ken Fumerton, of the Mineral Society of Manitoba, were just two of six members busy digging Friday in an undisclosed place in the floodway, to see what the earth would yield. The society hasn't been able to look for selenite since 2008, but the provincial government has given special permission so they can dig into the site of the structure, which has saved Winnipeg from flooding several times, for three weeks. "It's like an archeological dig," Kitlar said while sitting in a rectangular hole he had dug. "And it's like fishing. One guy is finding fish and somebody else is finding none. You have to start at the top and work your way down carefully. If you don't, the crystal will shatter like an egg. They're that fragile."

Fumerton said he found a few crystals Friday, but he doesn't know for sure what they look like yet because they are still covered in clay left behind by Lake Agassiz. He said trying to get all the mud off too early would damage the encased crystal.

"You find one in the ground and you start probing around," he said. "These are going to be nice — I can see a crystal poking out. You have to wait until the clay dries and then get some off, put them in water, let it dry, and take some more off." The selenite crystals they are finding are created with a combination of the clay here being saturated in gypsum — the same material used to create Gyproc for the drywall for the interior walls of houses — and sulphate in the groundwater, the organic sulphur above the water table or from the clay itself.



Daniel McKay drives his shovel into the clay in the floodway on Friday, in his first time looking for selenite crystals. He and his wife, Melissa, are both working at the site.

WAYNE GLOWACKI / WINNIPEG FREE PRESS

Thanks to the floodway digging into the ground several metres, the crystals are more accessible, but you need permission to dig there. A provincial spokesman verified the government has given special permission to the organization to dig for crystals. The spokesman said for safety reasons the floodway channel and adjacent land are restricted areas and it is illegal to go there without permission.

Jack Bauer, a former president of the society who organized the dig, said half of the three weeks were used up without any digging because rain made the access road too muddy to get in.

Bauer said while a similar dig in 2008 — during the expansion of the floodway — used only shovels, this time around they rented equipment to strip about half a metre of soil off the top of the site. The group will then put the soil back after the dig has been completed. "We'll have up to 30 people listed for coming out," he said. "For safety concerns and liability, you have to be members of the society to come out. The general public is not allowed."

Bauer said on a scale of one to 10, with 10 being the hardest substance, selenite scores a two — about the same hardness as a fingernail. "They break easily, but they can cut a finger if you're not wearing gloves. The crystals have very sharp blades," he said.

Bauer said so far the largest piece they have found is about six centimetres across, but they're hoping to find a specimen up to 14 centimetres across.

"That would be in the museum or monster category," he said.

Jacques Bourgeois, the society's president, said the society is undertaking a special dig in the floodway as a way of celebrating Canada's 150th birthday.

"These crystals are highly sought after and are a defining feature of the mineral history of the Red River," Bourgeois said.

"There was a similar dig held during the widening of the floodway in 2008. These excavating events are a rare opportunity to catch a glimpse of the beauty that lies beneath our feet," he said.

Working up a sweat in the dirt under a hot sun, Daniel McKay said it's his first time looking for selenite.

"This is hard work," McKay said while his wife, Melissa, worked in another hole beside him. "I've done a lot of digging in gravel, silt and sand, but this is the hardest digging I've done.

"But that's what makes it valuable."

## LIFE-SIZE ARCHELON COMING TO MORDEN

Files from CBC News

Morden, Manitoba, is getting a new resident in the form of an ancient, 4½-metre-wide turtle. "It just dwarfs you," said Peter Cantelon, executive director of the Canadian Fossil Discovery Centre in Morden.

This Friday, the centre will officially unveil a life-sized, made-in-Manitoba sculpture of an archelon turtle, the largest turtle that ever lived. Around 80 million years ago, archelon turtles swam in the cretaceous seas that covered Manitoba and North America. "We actually have some fossils of it here at the museum itself," Cantelon said.



A gigantic statue of an archelon turtle will be unveiled in Morden, Manitoba. (Canadian Fossil Discovery Centre)

The turtle doesn't have a name yet, but Cantelon hopes to fix that with a public naming contest.

People who are interested can email their ideas to the museum throughout September and the top five or 10 ideas will be listed on the city's website so people can vote for their pick.

"We've had some suggestions already — Archie, Rosie. We've had some of the more obvious ones: Shelly and Sheldon have all come in," Cantelon said. "We could create a fifth Teenage Mutant Ninja Turtle name based off some Renaissance Italian artist."

Construction of the unnamed specimen took three months and was led by Morden resident Adolfo Cuetara. Cuetara moved to the city two years ago following a career making dinosaur statues in Spain, Cantelon said.



The sculpture sits at the west side of the city. (Canadian Fossil Discovery Centre)

Morden is already home to Bruce the mosasaur, a 15-metre-long sculpture of the ancient marine reptile that would shared the waters with archelon turtles. The museum introduced Bruce last summer.



We had a chance to visit the large sculpture of Bruce during our recent trip to Morden this summer. (Jacques Bourgeois)