

# Voice of the Dinosaur

Newsletter of the Kawartha Rock and Fossil Club Inc.

May 2006 - Volume 18 - Issue 5

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**Next Meeting:** Tuesday May 9 at the **Orientation Centre,  
Peterborough Zoo, 7:00 PM**

**Classified Ads:**

Any member who has extra equipment or materials for sale or trade can place an ad. Want ads also welcome. Ads must be related to mineral and fossil collecting. Contact the editor at 613-395-5896 or e-mail truenorthminer@aol.com.

**Special Guest Speaker**

Dr. Scott Ercit from the Museum of Nature in Ottawa will be at our May 9th meeting to give a presentation on Pegmatite's. Dr. Ercit is a leading authority on Pegmatite's and his presentations have always been extremely interesting. Please be sure to attend the meeting and listen to what will be a great presentation. The meeting will start promptly at 7:00pm.

**Editor's Note:**

We regularly encounter pegmatites on our field trips. In fact, the Tait Farm is a good example. Scott has an extensive knowledge of the pegmatite's we collect in and may be able to direct us to new ones!!

**Next Field Trip****Tait Farm Property**

**Meet at the Peterborough Zoo for a prompt 8:00am start or meet at the parking lot opposite the Mad River Consignment Store at 23 Bridge Street in Bancroft at 9:15am. Please do not be late as the trip can only enter the collecting site as a group.**

# MEETING SCHEDULE FOR 2006

## Revision 3 – April 2006

Meeting Date	Special Activities
May 9 <sup>th</sup>	Dr. Scott Ercit a research scientist with the Museum of Nature in Ottawa will give us a presentation on Pegmatites. Please bring in Pegmatite minerals for discussion.
June 13 <sup>th</sup>	Bob Beckett & George Thompson will give a short presentation on their adventure in Tucson, Arizona and at the Tucson Gem and Mineral Show. Fall Field Trip Planning.
July 11 <sup>th</sup>	Scapolite Night ! – Please bring in samples of Scapolite for discussion and study.
Aug 15 <sup>th</sup>	TBA
Sept 12 <sup>th</sup>	Election night! Plus a discussion on member's new mineral and fossil finds for the year.
Oct 10 <sup>th</sup>	Mr. David K. Joyce will give us a presentation on Gold in Canada. Please bring in your Gold samples to this meeting.
Nov 14 <sup>th</sup>	TBA
Dec 12 <sup>th</sup>	Festive evening celebrating the season. Bring <b>Red</b> and <b>Green</b> Minerals (and <b>festive fossils</b> ) to the meeting. Oh, and a few goodies to share if you can.
Jan 9 <sup>th</sup> 2007	TBA
Feb 13 <sup>th</sup> 2007	To celebrate our 30 <sup>th</sup> anniversary we are planning something a little different for this meeting – stay tuned!!
Mar 12 <sup>th</sup> 2007	TBA
Apr 9 <sup>th</sup> 2007	TBA
May 8 <sup>th</sup> 2007	TBA

Brad Wilson a well-respected gem cutter and prospector from Kingston has indicated that he would give a presentation on Gems Stones in Canada. We will let you know as soon as a date with Brad has been confirmed.

We still need a Fossil Night! So anyone with ideas for such please let me know soon.

## FIELD TRIPPING WITH FRED

On Sunday April 23, 2006, three brave souls, John Calder, Bob Beckett and Dick Verkuyl joined Fred Hall on the scheduled trip to the Millar's Mine area along the Gibson Road in Tory Hill. Bob and John found some very good specimens of Amphibole in a rotten Calcite pocket and a couple of rough Titanite's. Dick and Fred found some Calcite pieces with very promising looking Titanite's embedded. A quick stop at a road cut along Hwy 507 on the way home also added a few small Graphite balls embedded in Calcite and a couple of interesting greenish Scapolite crystals also embedded in Calcite. What a great day's collecting, no bugs, a little cool and damp in the morning and it rained fairly hard later in the day just enough to wash of a few good specimens. Those of you that did not make trip missed out on a good one here!

Make a note of the trips listed below and plan to join Field Tripper Fred and the rest of us on some great collecting trips this year. More information to come on Club field trips in future issues – stay tuned!

For the trip into the Tait Farm Property all participants will be required to sign a liability release before being allowed to enter the property. Chris Fouts will be our host and field trip leader for this collecting trip and he will have the required release forms available when we meet him at Mad River Minerals in Bancroft. This is a really great collecting locality at which you can, with some hard work, expect to find a variety of well crystallized minerals such as, Tourmaline, Quartz, Tremolite and if lucky, Phenakite.

This is a fee site and each participant will be required to pay a \$10.00 trespass/guide fee.

**We need as many participants as possible on this trip, so if you are planning to attend please let Fred Hall know as soon as possible.**

Sun. April 30 <sup>th</sup>	Tait Farm Property
Sun. May 7 <sup>th</sup>	Marmoraton Mine
Sun. May 14 <sup>th</sup>	Buckhorn Quarry
Sun. May 21 <sup>st</sup>	Brechin Quarry
Sun. June 4 <sup>th</sup>	Tamworth Area
Sun. June 11 <sup>th</sup>	Silver Crater
Sun. June 18 <sup>th</sup>	Faraday Mine Property

## OTHER FIELD TRIPS

The CCFMS has once again arranged for permission to collect at the Beamsville (Lincoln Quarry) on Saturday May 13<sup>th</sup> and the Dundas (Lafarge Quarry) on Sunday May 14<sup>th</sup>. These trips are an annual event and attended by lots of members from all the CCFMS Clubs. **At both quarry's, hard hats, safety boots, safety vests and safety glasses are mandatory dress code.** Both quarry operators are very good and in most cases there has always been lots of new material to hunt through. Two great days mineral collecting. More information on this trip will be available at the May 9<sup>th</sup> Club meeting.

## WHAT IS A TRILOBITE?

Well, when someone asked this old mineral collector the question what is a trilobite? My first thought was, who cares! However, the person asking the question was quite serious about the request so I had to think a little before answering, instead of my usual reply, they are just long dead beasts. After formulating a reasonable answer and satisfying the question I thought I should do a little more research on the topic and put a quick note into the next newsletter – so here we go ...

Kingdom: Animalia

Phylum: Arthropoda

Class: Trilobita

Trilobites are part of the group Phylum invertebrates Arthropoda. Arthropods have segmented bodies, paired jointed limbs, a hard external covering (exoskeleton) and flexible joints. Living arthropods include: spiders, scorpions, crabs, lobsters, shrimp, centipedes, millipedes and others which include over a million species of great diversity. As well as trilobites, extinct arthropods included the eurypterids. Arthropods are the most abundant and successful of all animal life forms, having adapted to and survived a large variety of ecological diversity by crawling, burrowing, swimming or flying. Experts divide this huge phylum into classes – the four most important being; Trilobites – Cambrian to Permian age, Crustaceans (mostly aquatic animals, including lobsters, crabs, shrimp and ostacoids) – Cambrian to Recent, Chelicerates (air breathers – scorpions, mites, ticks and spiders and water breathers – eurypterids) – Cambrian to Recent and Insects (winged arthropods) – Devonian to Recent.

Trilobites are an extinct class of diverse marine arthropods (jointed foot animals) who first appeared at the beginning of the Cambrian Period approximately 570 million years ago. An incredible variety of Trilobites flourished throughout the early Palaeozoic Era decreasing in diversity and numbers until their extinction in the late Permian Period about 240 million years ago. These marine invertebrates were probably bottom-feeding predators and scavengers. Fossilized remains of trilobites can be found on every continent and they are very important as Palaeozoic guide fossils. As with all arthropods, trilobites possessed a bilaterally symmetrical, segmented body and appendages, covered by a jointed chitinous exoskeleton, which provided support and protection for muscles and organs.

Over the more than 300 million years of growth and diversification more than 10,000 species of Trilobites developed and died out. Each species of Trilobite had a dorsal exoskeleton with unique morphological characteristics. Shapes and sizes of Trilobites varied greatly from the tiny Shumardia, which measured only 5mm long to the huge Uralichas at over 700mm in length. Shapes also differed, some Trilobites such as Peronopsis with its smooth and streamlined form made it difficult to tell the head from the tail while others like Ceraurus and Olenoides developed spiny ornamentation which likely added additional protection against predators.

With the chitinous exoskeleton typical of all arthropods, trilobites usually had a mineralized body covering divided into three parts; the cephalon (head), thorax (segmented body) and the pygidium (tail). The segmented construction of the exoskeleton allowed many types of trilobite to enroll when facing danger, providing protection to the softer parts of the body. The problem with a hard mineralized exoskeleton is that in order for trilobites to grow it was necessary that they molt, or shed their body covering. This molting usually involved some disjuncting of the exoskeleton. This means that over the lifetime of a trilobite they may have left many parts to fossilize, which is why we commonly find lots of separated cephalon's, thorax sections and pygidium. However, when we find a complete or in tacked articulated trilobite this always represents the death of that trilobite.

The trilobite is the earliest animal known to possess eyesight, although, there are species such as Agnostids that apparently did not have eyes. The remarkable preservation of trilobite eyes in the fossil remains has enabled scientists to study the construction and development of the eye, an organ that is rarely preserved in other fossilized remains. At least two distinguishable types of eyes have been identified in trilobites. The schizochroal

or aggregate eye may contain from 2 to more than 750 separate lenses. The holochroal or compound eye consists of touching hexagonal calcite lenses, which may number from 100 to more than 15,000. Both type of eye, roughly crescentic in shape, allowed most trilobites a continuous 360-degree vision along the ocean floor.

Collectors and museums around the world prize trilobites as objects of curiosity and study. Scientists use trilobites as stratigraphic index fossils which help to determine the age of rock formations.

While this little article has barely touched the surface of the topic of trilobites I hope it has awakened your desire to get up, get out and start collecting and studying trilobites! For lots of really good information on trilobites check out the web site at <http://www.trilobites.info> it is one of the better web sites devoted to trilobites that I have seen. Another really great site is at <http://www.trilobites.com> the two specimens below are examples from their web site.



**Name:** Isotelus mafritzi  
**Age:** Ordovician  
**Formation:** Cobourg Formation  
**Location:** Ontario, Canada  
**Size:** Trilobite is 2.7 inches long

This is a very aesthetic specimen of Isotelus mafritzi

This outstretched trilobite is wonderfully articulated and exhibits fine detail.

The small, crescent-shaped eyes are easily seen, and the short genal spines are quite evident.

Although the head of the trilobite is somewhat compressed, the thick-shelled exoskeleton is beautifully preserved.



**Name:** Raymondites sp.  
**Age:** Ordovician  
**Formation:** Bobcaygeon Formation  
**Location:** Ontario, Canada  
**Size:** Trilobite is 2.1 inches long including spine

This large Raymondites is an extremely rare Ordovician trilobite.

This type is known for the long spines that are easily seen on this specimen.

The spine off the tail extends well past the brim of the pygidium.

Please, if you liked this article, send us some pictures of your trilobites along with when and where you found them we will include your information in one of our future newsletters.

For further reading see:

Thomas T. Johnson, David Rudkin, Peter L. Larson and Robert A. Farrar; Black Hills Institute of Geological Research, Inc. publication What is a Trilobite.

Frank H. T. Rhodes, Herbert S. Zim and Paul R. Shaffer; A Hamlyn Guide, Fossils - a Guide To Prehistoric Life.

## COMING EVENTS

### **June 3-4 GEO-VENTURE**

#### **Niagara Peninsula Geological Society Gem, Mineral and Fossil Show**

Sat. 10 am-5pm, Sun. 10 am-5pm,

Childrens Discovery Centre, 360 Niagara Street, St. Catharines, ON

Admission: by donation

Contact: Rod.and.Heather @ cogeco.ca or Claude Owen, cro @ vaxxine.com

Website: [www.iaw.com/~jime/](http://www.iaw.com/~jime/) Flyer: [www.iaw.com/~jime/GEO-VENTURE2006.pdf](http://www.iaw.com/~jime/GEO-VENTURE2006.pdf)

### **July 28-30 Toronto Gem and Mineral Summer Show**

#### **Presented by 3416798 Canada Inc.**

Fri. 4 pm-9pm, Sat. 10 am-7pm, Sun. 10 am-5pm.

Leaside Gardens 1073 Millwood Road, East York, Toronto, ON

Features: Precious and semi-precious gemstones, fine quality jewellery, amber, stone beads, unique worldwide crystal specimens, tools, and everything to create your own works of art!

Admission: Adults \$8, Seniors \$7, 12-18 \$6, under 12 free with adult

Contact: Ohannes Bedrossian (514) 989-9800 [torontogemshow@CANADA.com](mailto:torontogemshow@CANADA.com)

Website: [www.torontogemshow.com](http://www.torontogemshow.com)

*Members of Toronto-area gem and mineral clubs will demonstrate jewellery making, faceting and lapidary arts. Unknown gems will be identified by qualified gemologist from the Canadian Gemological Association.*

### **July 29-30 Cobalt Rocks**

#### **Rock & Mineral Show and the Great Northern Treasure Hunt**

Sat. 9am-6pm, Sun. 10 am-5pm

Les Costello Memorial Arena, Cobalt, ON

Features: A northern event to celebrate the people & history of mining, rocks & minerals of the region.

Contact: Nina (705) 646-2212 or (705) 648-5043

Website: [www.silverqueen.ca/](http://www.silverqueen.ca/) (select Cobalt Rocks Festival on the side menu)

### **Aug 3-6 43rd Annual Rockhound Gemboree**

#### **"Canada's largest gem & mineral show"**

Thurs. 10am-7pm, Fri. 10am-9pm, Sat. 10am-7pm, Sun. 10am-5pm.

Contact: Christine Hattin, Events Coordinator, Bancroft & District Events Coordinator at (613) 332-1513, or e-mail [Christine@commerce.bancroft.on.ca](mailto:Christine@commerce.bancroft.on.ca)

### **Oct 20-22 Toronto Gem and Mineral Show**

#### **Presented by 3416798 Canada Inc.**

Fri. 4 pm-9pm, Sat. 10 am-7pm, Sun. 10 am-5pm.

Skyway Trade Centre, 65 Skyway Dr., Rexdale, ON. near Hwy. 417 exit to the airport

Features: Precious and semi-precious gemstones, fine quality jewellery, amber, stone beads, unique worldwide crystal specimens, tools, and everything to create your own works of art!

Admission: Adults \$7, Seniors \$6, 12-18 \$5, under 12 free with adult

Contact: Ohannes Bedrossian (514) 989-9800 [torontogemshow@CANADA.com](mailto:torontogemshow@CANADA.com)

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