



# Voice of the Dinosaur

Newsletter of the  
Kawartha Rock and Fossil Club

April 2014 ~ Volume 26 ~ Issue 4

**CLUB ADDRESS:**

1211 Kenneth Ave.  
Peterborough, ON  
K9J 5P8

**PRESIDENT**

Robert Montgomery  
705-432-2039  
[robertm@bell.net](mailto:robertm@bell.net)

**VICE-PRESIDENT**

Steve Wesley  
705-743-9175  
[swesley@i-zoom.net](mailto:swesley@i-zoom.net)

**TREASURER**

Ken Fox  
705-742-6440  
[kfox71@cogeco.ca](mailto:kfox71@cogeco.ca)

**SECRETARY**

Bev Fox

**FIELD TRIP CO-ORDINATOR**

Ulrike Kullik  
705-778-3787  
[ulrike.kullik@gmail.com](mailto:ulrike.kullik@gmail.com)

**SHOW CO-ORDINATOR 2014**

Bob Beckett  
705-748-0178  
[rbeckett@cogeco.ca](mailto:rbeckett@cogeco.ca)

**NEWSLETTER EDITOR**

Bev Fox  
705-742-6440  
[kfox71@cogeco.ca](mailto:kfox71@cogeco.ca)

**PAST PRESIDENT**

Mark Stanley

**WEB SITE:**

[www.kawartharockandfossil.com](http://www.kawartharockandfossil.com)

**WEBMASTER: Donald Doell, Jr.**

[donald.doell@collectorsmatrix.com](mailto:donald.doell@collectorsmatrix.com)

Member of the CCFMS

**Last Regular Meeting**

March 11, 2014

The meeting was called to order by the President, Robert Montgomery. As per the accepted motion at the January AGM, the Treasurer's Report and other business had been reported and discussed at an Executive Meeting so only a general meeting was conducted. Bob Beckett gave a preliminary report on the Gem, Mineral and Fossil Show and Ulrike Kullik announced that her full field trip report will be in the April Newsletter. As well, she will begin posting field trip info on the Club Website. As there was no prepared program, Tom Jenkins passed around some items to be identified. After the meeting adjournment, the items were put into the silent auction.

Several members had on show some of the minerals and fossils they had collected over the years.

**Next Regular Meeting**

Date: April 8, 2014

Place: Orientation Centre, Peterborough Zoo

Time: 7:00 pm

Agenda: Regular General Meeting

**Stump the Experts**

We will try a new activity at our meetings, starting at the April 8th Meeting.

Bring any mineral or fossil to the meeting, if it can not be identified by those in attendance, you win the prize.

If the specimen was collected in Ontario, you do not have to identify the location it came from.

If the specimen was collected anywhere else, you must specify the exact location it was found.

Each member will have one try at it, by writing his/her answer on paper without consultation or discussion.

The prize being, you will have first pick from the silent auction table of the specimen of your choice free of charge. One winner only, multiple winners will be dealt with.

April 8th Meeting is fossil night.

Bring out your fossils, prepped or not, if they have a story even better.

If they are not too fragile, I hope we can pass them around the table while you talk about where you collected them.

For the benefit of any new member:

I will continue to bring to the meetings a collection of minerals that I collected locally. To be able to show new members what is available to collect on our field trips. If any member would like to add to this display please feel free to do so, it will help to keep it interesting.

Your President, Robert Montgomery

## **THE SHOW CORNER**

### **The 2014 Gem, Mineral and Fossil Show**

Bob Beckett reported that this year's Show was a great success and suggested running next year's Show in the same or similar way with duties being split up amongst Club members.

He thanked all who had participated in any way and acknowledged the success of the kids' sandbox. Fred and Tom have over the years come up with the perfect solution of filling the sand box with pea gravel. However, the gravel is not getting any lighter and the manual hauling to the Show and back to storage is becoming more of a problem. If anyone can think of a lighter material that would represent digging in the ground, and is not apt to be tracked all around or lead to stopping up the sinks from kids washing their hands, please contact Robert, Bob, Fred or Tom.

Attendance was up this year (1401 paid) from last year (1333 paid) and many more children were present. Bob suggest there was a need to add more activities for kids with handout activity papers such as drawings, games, etc.

Steve Wesley noted that a family from Montreal had seen the ad for the Show on our Website and had made a special day trip to attend. They loved it. However, the road signs are still the most noticed advertising followed by ads in The Examiner and Peterborough This Week. There was, however, a substantial increase in people referencing the Website for info on the Show. Ulrike Kullik mentioned that she had seen an announcement for the Show on the CBC.

#### **PLEASE NOTE:**

#### **Annual Show Road Signs**

Anyone having any of the "Road Signs" used for advertising the annual show please take one of the following actions at or before the April Club meeting:

- 1/ Notify Bob Beckett that you have signs, the quantity you have and if you're going to store them until next year or bring them back to the April meeting (or another meeting) so they can be stored in the storage locker.
- 2/ Bring the signs you have to the April meeting.

We are still missing almost half of those issued!!

**THE FIELD TRIP CORNER**  
**2014 Field Trip Preliminary Information**  
by Ulrik Kullik

At the Club Meeting on March 11th I talked about the upcoming collecting season for 2014 and what is currently in the planning stages.

There are Choice's to be made and You the Membership need to assist in making those Choice's. There is little point in my spending countless hours researching and planning collecting trips if they are not to places you want to go! So, I NEED YOU to let me know where you would like to go or what you would like to collect so that I can plan trips accordingly. Without your input there will be no Club trips this year.

Here are a number of options for you to consider.

We can visit some of the older more well know localities such as:

Millar Mine - Tory Hill, ON

Desmont Mine - Wilberforce, ON

Princess Sodalite Mine - Bancroft, ON

Schickler Fuorite Occurrence - Cardiff Township in ON

Bearlake Diggings- Gooderham/Tory Hill, ON

Miller Property - Eganville, ON

Beryl Pit - Quadeville, ON

MacDonald Mine - near Bancroft, ON

OR

We can explore mineral deposits (new to us) on Crown land that I've researched over the winter. I looked through 200 plus localities in the Bancroft, Haliburton, Minden and Wilberforce areas. From that I've researched 14 potentially good localities that look worthy of a trip, seven of those localities are very promising. Some of the localities require lengthy hikes through rugged terrain through the bush and along old trails.

Before we plan a Club trip to these localities they need to be scouted out on the ground to verify if the literature and old maps are accurate. Volunteers from the Club are requested to assist me in scouting out these areas this spring. Please let me know if you can help out with this task.

After scouting out each locality, if the site looks like it may be productive, we can organize a Club collecting trip.

OR

We could do some of both. Some well known localities and some new scouting work perhaps followed by Club trips to the new (to us) sites.

**JUST AS A REMINDER, THIS IS WHERE YOU GET INVOLVED IN THE PLANNING ETC.**

- 1/ Let me know where you would like to collect this year or what you would like to collect.
- 2/ I would like to have a Field Trip Assistant Leader or Co-Leader in case I am unable to attend one of the planned trips. If you're interested in this please let me know and we'll get the position accepted at a Club meeting.
- 3/ If you have other ideas or wishes or, even better, if you have a personal contact at a quarry, mine site or other collecting site and can help organize a collecting trip that would be a huge help.

PLEASE spend some time on this now and send me some information, preferably within a week so I can continue with the field trip planning based on what the Club wants and not waste my time. I can be contacted by email at [ulrike.kullik@gmail.com](mailto:ulrike.kullik@gmail.com) or call 705-778-3787.

We also have the opportunity to join other Clubs on field trips or attend the CCFMS organized trips. Some exceptions and special circumstances may be involved but I'll let you know what these are closer to the trip dates and when I have all the latest information on these trips. Some of these opportunities are listed below:

- 1/ The Kingston Club will have a Fossil Trip in April to a locality in Prince Edward County. Field trip leader Alf Newnham has graciously offered to open the trip to KRFC members as well. Spaces may be limited.
- 2/ The Kingston Club will have a Trip to Thunder Bay to collect amethyst at one or two localities. Field Trip Leader Alf Newnham has graciously offered to open the trip to KRFC members as well. Spaces may be limited. This will be a week long trip in August with collecting through the 18<sup>th</sup> to 23<sup>rd</sup>. Travel to and from Thunder Bay will take a couple of days. Participants must be in Thunder Bay at the designated meeting point on August 17<sup>th</sup>. Transportation will be the responsibility of each attendee.
- 3/ At some point in the summer, July or later, we will have an exploration trip into the Schickler Occurrence under the supervision of a Licensed Prospector to assist in completing work required to maintain the Claim. We will need at least five or more able bodies to attend.
- 4/ There is a very good possibility that we will get permission to collect at the Marmoraton Mine again this year. There will only be a limited number of spaces to attend this trip. Final details are still being worked on.
- 5/ There are CCFMS organized collection trips to Beamsville, likely in May and September (dates not confirmed at this time).
- 6/ There is a possibility of a CCFMS organized collecting trip to St. Mary's Quarry near Bowmenville in October to collect Fossils (date not confirmed at this time).
- 7/ A Rock Trimming, Cleaning, Cutting, Specimen Preparation Party over the summer is being investigated for Club members. The plan is to have mechanical trimmers, diamond saws, high pressure water guns, soda blast equipment etc. in one locality for members to clean up and prepare their specimens. Experienced members will be on hand to operate the various pieces of equipment and help out. In order to know if this is worthwhile organizing (and it will take some planning) we need know how many club members would be interested in attending at such an event.

Please email me or call me if you're interested.

8/ The KRFC Swap and Talk is being held in Norwood on September 28<sup>th</sup>, 2014.

Collecting in the field is fun!! Come and *join* me!!!

Happy hunting!

**PLEASE NOTE:**

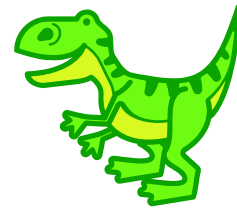
There will be announcements regarding upcoming trips. Some of them will be on short notice. Bev will send emails re: the trips, but snail mail people would be wise to stay in contact with me if you are interested in trips. You contact me, I do not contact you.

PLEASE, check the Club Website regularly, the Club Trip and Private Trip sections. Expect to see announcements there, weather permitting, starting in April.

The Club Website is still a work in progress and if you have problems accessing the site, contact one of the Executive so the problems can be fixed.

Your Field Trip Co-Ordinator  
Ulrike Kullik (Ulli)

**THE FOSSIL CORNER**  
**Dinosaurs - Part 2**  
By Kevin Kidd



Let's continue where we left off last month shall we.....

During the early Triassic, the continents were still all connected as a super-continent called Pangaea. Dinosaurs were widespread throughout Pangaea, but variation in forms was somewhat limited. They continued to diversify and evolve into the Jurassic and, beginning in the early-middle Jurassic, around 175 million years ago, Pangaea began to break apart into Laurasia and Gondwana. By the early Cretaceous, 150-140 million years ago, the break-up was continuing with Gondwana further dividing into Africa, South America, India, Antarctica and Australia. As all this was going on, dinosaurs were becoming strongly differentiated to suit the environment, depending on which particular landmass they were on.

Scientists will likely never be certain of the identities of the largest and smallest dinosaur species, since only a tiny percentage ever fossilize. Of those that do, only small percentages have bones that are ever exposed and discovered and only a small percentage of those are close to a complete skeleton. To date, a 100% complete associated dinosaur skeleton remains unknown, regardless of species. Every one in every museum features some reconstructed parts or are composites from several individual animals. The tallest and heaviest dinosaur known from good skeletons is *Giraffatitan brancai*, which was discovered in Tanzania between 1907 and 1912. Bones from several similar sized individuals were incorporated into the skeleton,

currently on display in Berlin. The beast is 12m (39 ft) tall and 22.5m (74 ft) long with an estimated weight of 30-60,000 kg (70-130,000 lbs). The longest “complete” dinosaur is a 27m (89ft) *Diplodocus* found in Wyoming. There were larger dinosaurs than these, but the fossils are too fragmentary to give reliable estimates. The largest known carnivore was not *T-rex*, but *Spinosaurus* (as seen in Jurassic Park 3) with a length of 16-18m (52-60 ft) and weighing an estimated 8150kg (18000 lbs). The smallest dinosaurs were about the size of pigeons. *Anchiornis huxleyi* is the smallest dinosaur described from an adult specimen with a total length, including tail, of about 35 cm (14”) and estimated weight of only 110g (just under 4 oz).

When dinosaurs were first discovered, they were assumed to have been cold-blooded, like modern reptiles. This idea remained prevalent until paleontologist Bob Bakker published an influential paper in 1968. Modern findings show some dinosaurs survived in cooler climates and at least some species must have regulated their body temperatures by internal biological means, aided by their sheer bulk in large species and feathers or other body coverings in other species. Evidence of endothermy (warm-bloodedness) includes the discovery of polar dinosaurs in Australia and Antarctica and analysis of blood vessel structures within fossil bones that are typical of endotherms.

About 66 million years ago, the end came. All non-avian dinosaurs, and many groups of avian dinosaurs and birds suddenly became extinct, along with the ammonites, mosasaurs, plesiosaurs, pterosaurs and many groups of mammals. Insects weren't really affected which left them available as food for anything that did survive. This mass extinction is known as the Cretaceous-Paleogene extinction event. The nature of the event that caused this mass extinction has been studied extensively since the 1970's with several theories being considered. The impact of a meteor is believed to be the likely cause, but some scientists cite other possible causes or feel that a “perfect storm” of events led to the disappearance of dinosaurs. The most prevalent idea is that a meteor impact in Mexico's Yucatan Peninsula, creating what is now known as the Chicxulub Crater, was the main culprit and the sudden increase in iridium levels recorded around the world and dated to that time is proof. Iridium is a very rare element on Earth, but is much more common in meteors/meteorites. The meteor is estimated at between 5-15km wide and such an impact would have created first an enormous shockwave, then a massive amount of heat and falling debris, and finally a prolonged cooling period due to smaller particulate in the air blocking out the sun. Another possible cause for extinction are the Deccan Traps. Located in India, this is one of the largest volcanic features on Earth, and it was formed some 60-68 million years ago. It is possible that these eruptions could have released enormous amounts of dust and sulphuric aerosols into the atmosphere, blocking sunlight and reducing photosynthesis in plants. In addition, carbon dioxide emissions from the volcanoes likely caused a greenhouse effect and global temperatures rose rapidly. Whether dinosaurs were already in trouble when the meteor hit is debatable, but they didn't survive long after.

Dinosaur fossils have been known for millennia, but not properly recognized. The Chinese referred to them as dragon bones, while early Europeans considered the bones to be the remains of giants, as are mentioned in the Bible. The first published

scientific report of what now would be recognized as a dinosaur fossil came in 1699, when Edward Lhuyd described and named a sauropod tooth. The first dinosaur genus to be identified from several skeletal elements was *Megalosaurus* in 1824, and since then, discoveries have exploded with new ones happening all the time. No dinosaur remains have ever been discovered in Ontario. It's almost a certainty that they roamed this area, but virtually all deposits of the correct age have been eroded away. There is a relatively small area of Cretaceous rock in the James Bay lowlands, and if any "dinos" were to be found, it would likely be around there. I don't have many fossils from dinosaurs or their kin in my personal collection. Most of the stuff is too expensive, too fragmentary or too risky with regards to fakery. What I do have are several teeth from different species, and here they are (all except *Revueltosaurus*) Cretaceous in age:

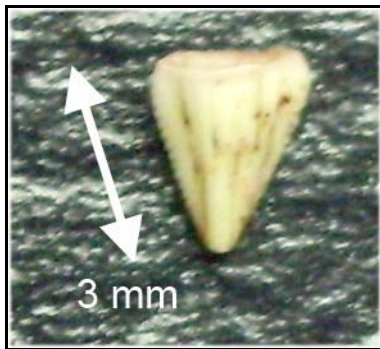


Figure 1.

A tooth from *Revueltosaurus callenderi*, an early crocodylian from the Triassic with tiny serrated teeth.



Figure 2.

A tooth from *Siroccoptyx moroccensis*, a Pterosaur. No serrations as they were mostly fish eaters, just long thin teeth for spearing their prey.

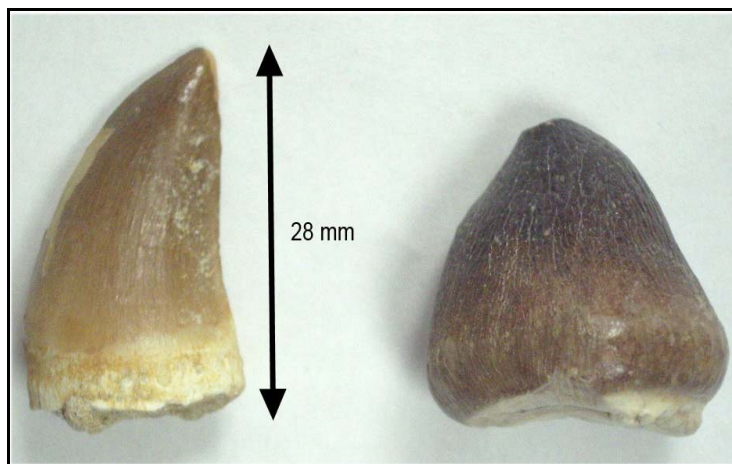


Figure 3.

A pair of Mosasaur teeth: *Prognathodon* sp. on the left and *Globidens aegyptiacus* on the right. Very stout, unserrated teeth. This species of *Prognathodon* is likely the most common of all Mosasaurs, and often misidentified and repaired, while the *Globidens* is fairly uncommon.



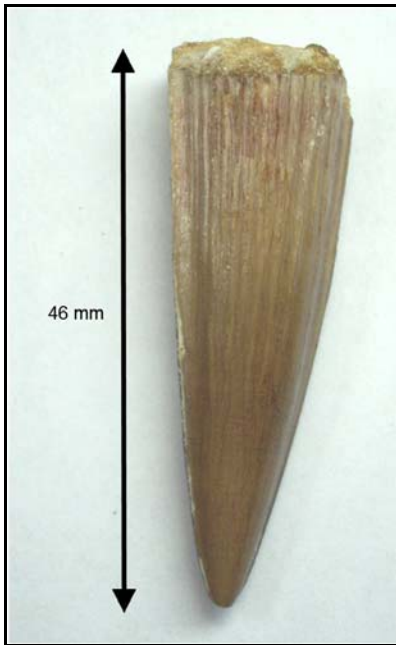


Figure 4.

*Tooth of a Spinosaurus aegyptiacus*, the largest known theropod dinosaur. Like a Pterosaur, the teeth are unserrated as their diet was likely mainly fish. There are striations along the length of the tooth. Probably the most common of all dino teeth, but not easy to find in nice condition and without repair.



Figure 5.

*Tooth of Richardoestesia gilmorei*, a small theropod with serrated teeth. This one was my first dino fossil.

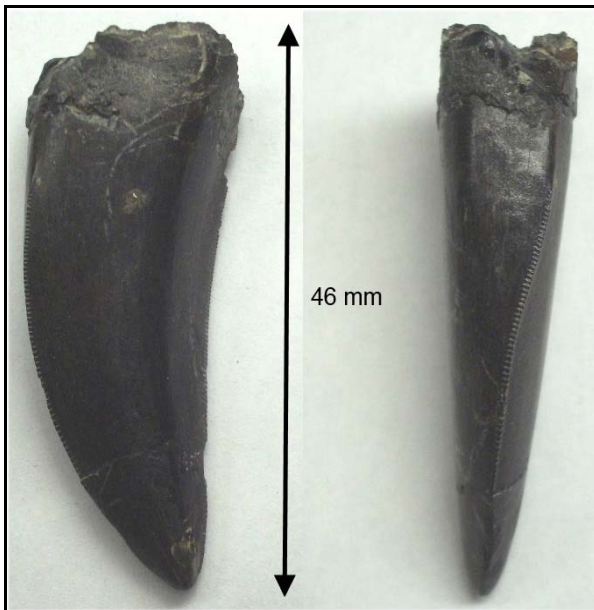


Figure 7.

A tooth in two views from an *Albertosaurus sarcophagus* (LOVE that name), a theropod from Alberta. Notice how the serrations on the leading edge of the tooth curve around - nasty bite!

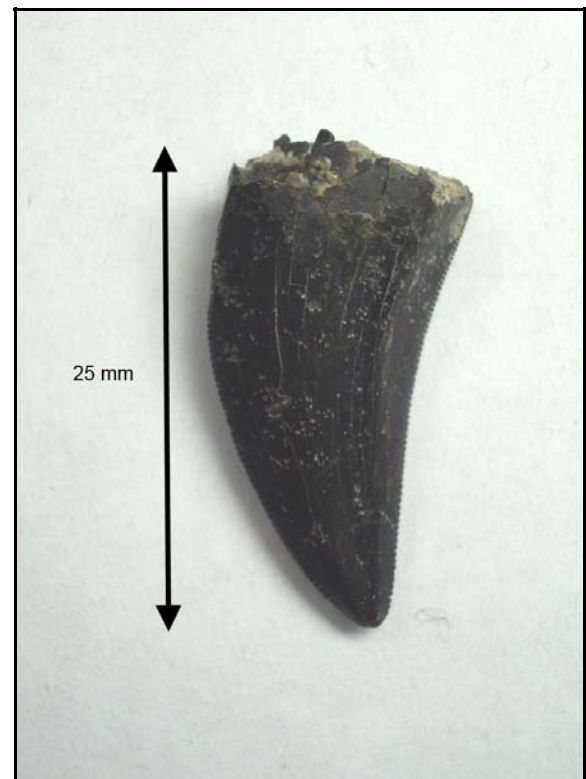
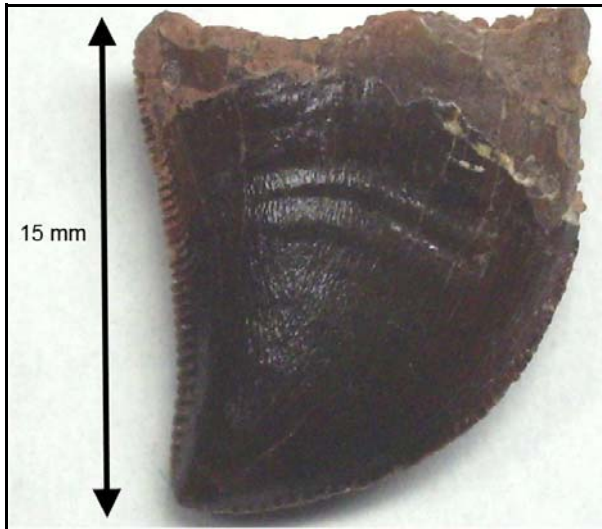


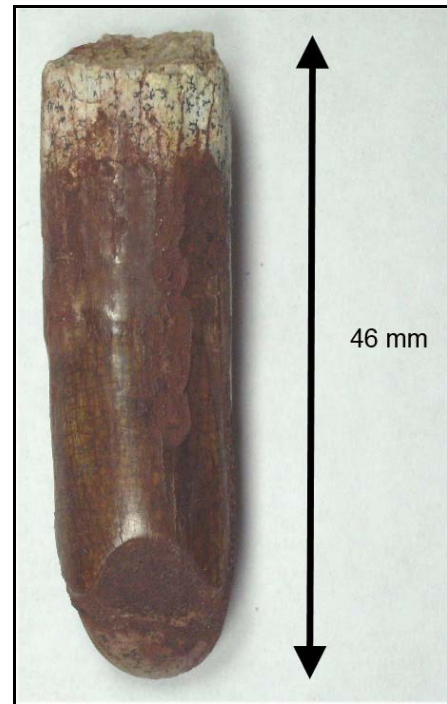
Figure 6.

A raptor tooth from a *Dromaeosaurus sp.*





**Figure 8.**  
A tooth from *Carcharodontosaurus saharicus*. Another theropod larger than a “T- rex”, this small tooth is a posterior example.



**Figure 9.**  
A tooth from *Rebbachisaurus garasbae*, a sauropod (long-neck) from Morocco. As is typical, the peg-like tooth has a wear facet on the end. Whether you noticed or not, it’s a sheer fluke that the three largest teeth are exactly the same length.



**Figure 10.**  
From *Triceratops horridus* with a portion of the root still intact.

**Until next month - Happy Hunting!**

Photo credits- All photos from personal collection of Kevin Kidd.

## THE LIBRARY CORNER

Pam Sangster, Resident Geologist, after her presentation on February 11, left us several items:

1. *The Subsurface Paleozoic Stratigraphy of Southern Ontario Ontario Geological Survey Special Volume 7*  
D. K. Armstrong and T. R. Carter, 2010.
2. *Limestone Industries of Ontario Volume III - Limestone Industries and Resources of Central and Southwestern Ontario.*  
Ministry of Natural Resources and Ministry of Northern Development and Mines, 1989.
3. *Report of Activities, 2012, Resident Geologist Program Ontario Geological Survey Open File Report 6288, 2013. Southeastern Ontario and Southwestern Ontario Districts and Petroleum Operations.*
4. Map 2544 - Bedrock Geology of Ontario, Southern sheet.  
Ministry of Northern Development and Mines
5. Map 2556 - Quaternary Geology of Ontario, Southern Sheet.  
Ministry of Northern Development and Mines
6. Smaller map of Quaternary Geology.  
Ministry of Northern Development and Mines

These and other items in our library are for members to borrow. Just contact me, Bev Fox email: [kfox71@cogeco.ca](mailto:kfox71@cogeco.ca) , or call 705-742-6440 with your request and I will bring the item to a meeting.

I will soon be sending out a new listing of items in the library.

## THE EDITOR'S CORNER

First of all, congratulations to Ulrik Kullik who won the Best Collected Fossil in 2013 Award with her example of Pleurocystites squamosus, an echinoderm found near Brechin, ON and to Donald Doell, Jr. who won the Best Collected Mineral in 2013 for his example of "Lyndochite", a minor chemical variety of euxenite-(Y), discovered in the Beryl Pit, Quadeville, ON . We had several competitors in each category this year and the votes were very close. This is what makes the competitions exciting, the participation. Who knows, any one of you might make an exciting find on a field trip this year and you might be a competitor in one of Best Collected in 2014 Competitions at next year's Show.

This year's Show was a great success thanks to our dealers who return every year and some members who have tables. Just as importantly, we have the commitment of several dedicated members to thank. As in the past, Fred Hall brought in the pea gravel which he had stored over the winter for the Kids' digging pile and served yoeman duty overseeing it. As in past years, Tom Jenkins was in charge of the very successful Silent Auctions and Mark Stanley served as our very capable auctioneer for the Live Auctions. Bob Beckett took over as the Show Co-Ordinator and Mark Stanley handled the tricky job of advertising. Thanks to all those members who took the time to put up signs and distribute flyers. PLEASE, if you still have signs, bring

them to the next meeting or make arrangements with Bob Beckett. His info is on the sidebar on the front of this Newsletter.

The job of showcase placement and content was handled by Bob Beckett and George Thompson. Ulrik Kullik took capable charge of the Best Collected Competitions. Ken Fox made sure there were volunteers at the Club Table and had charge of all monies related to the Show. Ken thanks all those members who unstintingly, Show after Show, have volunteered to “man” the Club Table and did so again this year: Joyce Allison, Ulrik Kullik, Carlo Lisi, Robert Montgomery, Bob Smith, Mary and Jay Wacasey and Steve Wesley. Thanks, also to newer members Wayne David and Peter Szarka. Wayne even brought some samples of a mineral to hand out. Many thanks Wayne. We can always use more handouts. The children really appreciate them. The handouts of games and information that Bob Beckett supplied for the Club Table were snapped up by many children and adults.

Robert Montgomery circulated throughout the Show and made himself useful where ever an extra person might be needed. He took the time several days before the Show to visit Pete Midgley and put together the eye catching display of amethyst from examples that Pete’s wife, Edie had collected over many years.

All the displays were excellent and more participants are always welcome. The displays are a necessary part of the Show and attendees look forward to perusing the displays. If you are not interested in taking part in one of the Competitions for Best Collected, consider putting together a display of some of your “finds”, or even sharing a case with another member for display at next year’s Show.

To enter a competition or even have a display, you must collect and that is done on field trips. Ulli has requested your input on field trips for this year. If she has NO REPLIES, there will be NO FIELD TRIPS so get the lead out and let her know before the meeting on April 8.

My thanks to Kevin Kidd for his article on dinosaurs. I know you enjoy his articles as much as I do. Thanks to Ulli, Robert Montgomery and Bob Beckett for their contributions to this issue. And, as always, my thanks to my husband Ken, who proofreads each Newsletter and assists me with the boring and tedious job of photocopying and mailing of the snail mail issues. Without his assistance, you might not have newsletter.

Your Editor, Bev Fox

### **COMING EVENTS for 2014**

Courtesy of the CCFMS Website

**Apr 5-6**      The Brantford Lapidary and Mineral Society presents the 42nd Annual Gem and Mineral Show, Paris, Ontario. Paris Fairgrounds, 139 Silver Street, Paris, Ontario, N3L 1V5.  
Admission: Adult - \$5.00, 12 years & younger, free.  
Dealers, Demonstrations, Exhibits, 'Mine for Gems' Display.  
Silent Auction Saturday & Sunday.

- Apr 23** Mineral Identification Night at the ROM, 4:00pm to 5:30 pm.  
 President's Choice Entrance on Queen's Park, doors nearest Museum subway stop. Visit their website at:  
<http://www.rom.on.ca/en/activities-programs/events-calendar/rock-gem-mineral-fossil-and-meteorite-identification-clinic>, or contact at:  
 416-586-5816; [naturalhistory@rom.on.ca](mailto:naturalhistory@rom.on.ca)
- Apr 24-27** 41st Rochester Mineralogical Symposium, Radisson Hotel, Rochester Airport, 175 Jefferson Avenue, Rochester, NY.  
 For more info, <http://www.rasny.org>.  
 Scientific lectures, many dealers and exhibits.
- Apr 25-27** Toronto Gem and Mineral show.  
 Commercial Gem and Mineral Show with lots of mineral, gem and other dealers.  
 Friday 4:00-9:00 pm. Saturday 10:00 am-7:00 pm.  
 Sunday 10:00 am-5:00 pm.  
 Civitan Arena, 1030 Don Mills Road, Toronto, ON.  
 For more details go to <http://www.toronogemshow.com>.
- May 2-4** Robert Hall Originals – Annual Spring Open House & Demonstration Weekend.  
 10:00 am to 5:00 pm each day.  
 Rocks, minerals, gems, beads, lapidary demonstrations & more!  
 A Free Weekend of Fun... "Mineral Madness".  
 Featuring Canadian Minerals & Our New Thunder Bay Mine Finds!  
 New & Different Jewellery & Lapidary Demonstrations.  
 Explore Outdoor Rock Piles Free Coffee & Treats!  
 138 Sugar Maple Road, St. George, Ontario N0E 1N0.  
 Phone: 519-488-1236, or 1-800-360-2813.  
 Website: <http://www.roberthalloriginals.com>.  
 Email: [robert@roberthalloriginals.com](mailto:robert@roberthalloriginals.com).
- May 2-4** Canadian Micro Mineral Association 51st Symposium.  
 Brock University, St. Catharines, Ontario.  
 For more info contact: [ruehlicke@rogers.com](mailto:ruehlicke@rogers.com).
- May 3** The Kitchener-Waterloo Gem and Mineral Show.  
 Location: Waterloo Community Arts Centre (aka the "button factory").  
 25 Regina St. S., Waterloo, ON.  
 10:00 am-4:00 pm.  
 Rocks, minerals, gemstones, jewelry, fossils, meteorites.  
 Free admission. Free rocks for kids.  
 Contact: [kwgemandmineralclub@hotmail.com](mailto:kwgemandmineralclub@hotmail.com).  
 Website: [www.calaverite.com/kwgmcc](http://www.calaverite.com/kwgmcc).