

Voice of the Dinosaur

Newsletter of the Kawartha Rock and Fossil Club Inc.

Member of the Central Canadian Federation of Mineralogical Societies (CCFMS)

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Next Meeting: Tuesday May 8th at the **Orientation Centre,
Peterborough Zoo, 7:00 PM**

May 8th 2007 Meeting Program

Crystal Twins & Crystal Scepters. Come and meet the twins! Join us and explore the fascinating world of crystal twins and crystal scepters. Find out how they twin, why do they twin twin, twin, twin (sixlings). Do you have twins in the family?? Also, bring your scepters and find out why crystals scepter. Join the group as we explore these fascinating aspects of the mineral world. Remember to bring along your crystal twins and scepters to the meeting.

There will also be a silent auction during the meeting so come early and check out the auction table.

MEETING SCHEDULE FOR 2007 - 2008

Revision 2 – May 2007

Meeting Date	Meeting Activity
April 9 th 2007	Canadian Gemstones. Brad Wilson was unable to join us in February due to the weather. We are fortunate that Brad has been able to reschedule his plans and he will be at this meeting to talk to us about Canadian Gemstones. Brad is a well-known and experienced geologist and gemstone cutter. This is will be a great presentation.
May 8 th 2007	Crystal Twins & Crystal Scepters. Come and meet the twins! Join us and explore the fascinating world of crystal twins and crystal scepters. Find out how they twin, why do they twin twin, twin, twin (sixlings). Do you have twins in the family?? Also, bring your scepters and find out why crystals scepter. Join the group as we explore these fascinating aspects of the mineral world. Remember to bring along your crystal twins and scepters to the meeting.
June 12 th 2007	Fossil Night – Trilobite, Crinoids, Brachiopods, Gastropods, Corals, Ferns, Leaves, Fish, Dinosaur bits and other dead stuff. Bring along your fossils and tell us a little about them – where you found them, when you found them etc. We can all learn a little from each other so come out and help make our night educational and fun.
July & Aug, 2007	Summer Break – Spend some time with Field Tripper Fred and Go Collecting. Bring your finds to the Fall and Winter meetings to show us all. Have a great Summer !!! Don't forget to check out the list of great Gem and Mineral Shows going on in July and August, take a day trip or two and have fun at one or all of these Shows.
Sept 11 th 2007	Garnet Night. We will be having a show and tell session about the Garnet family. Please bring along your specimens of various Garnet species from anywhere in the world and join in the show and tell. A short Power Point presentation on the Garnet family will be available.
Oct 9 th 2007	Nova Scotia and Newfoundland - Mineral Collecting along Canada's East Coast.
Nov 13 th 2007	TBA
Dec 11 th 2007	Year-end Show & Tell Night. Bring along your best finds of the year – mineral or fossil. Tell us a little about them.
Jan 8 th 2008	TBA
Feb 12 th 2008	Movie Night – Topic TBA.
Mar 11 th 2008	TBA

We need ideas for meeting topics. The more ideas we get the more we have to choose from and the more interesting our meetings will be.

FIELD TRIPPING WITH FRED

2007 SEASON NOW OPEN FOR BUSINESS!!!!

- May 6th Tait Farm Property, L'Amable.**
Meet at Peterborough Zoo, Water Street, North Parking Lot.
Trip leaves at 8:00am sharp!
There is a small fee charged for this trip payable at the site.
Collecting potential: Tourmaline (Dravite), Phenakite, Quartz, Pyrite, Actinolite, Diopside.
- May 13th CCFMS Trip to LaFarge Quarry - Dundas**
Meet at the Quarry Gates at Moxley Road no later than 8:30am to sign in with CCFMS Field Trip Leader. You MUST have a current CCFMS Club membership card with you on this trip. Safety Boots, Safety Glasses, Hard Hats and Safety Vests are MANDATORY on this trip.
Collecting potential: Calcite, Celestite, Fluorite, Gypsum, Sphalerite, Galena, Pyrite, Marcasite, Quartz, Selenite, Strontianite, Dolomite, Chalcopyrite, Pyrrhotite, Aragonite, Melanterite. Some fossils can also be found, crinoids, corals, bryozoa, brachiopods, gastropods and occasionally trilobites.
- May 20th Dufferin Quarry – Brechin**
Meet at the Country Tyme Donut Shop @ Fowlers Corners (junction of Hwy 7 & County Roads 1 & 26) no later than 7:30am. Liability Release Forms for EVERYONE on the trip MUST BE SIGNED and submitted to the Quarry Operator prior to the trip. If you are going on this trip contact Fred Hall as soon as possible to get a Release Form to sign so he has chance to get them to the Quarry Operator.
Collecting potential: Trilobites, Crinoids, Asteroids (Star Fish), Brachiopods, Bryozoa and Cystoids.
- May 27th Marmora / Madoc Area**
Meet at Sears at Lansdowne St. & Monaghan Rd. Peterborough, Lansdowne Street Parking Lot to be ready for the trip to leave at 8:00am sharp.
More details on this trip will follow.
- June 3rd Faraday Mine Property, Bancroft**
Meet at Peterborough Zoo, Water Street, North Parking Lot.
Trip leaves at 8:00am sharp!
Collecting potential: Molybdenite, Ilmenite, Magnetite, Feldspar and bug bites.
- June 10th Bessemer and Childs Mines, Mayo Twp. Bancroft Area.**
Meet at Peterborough Zoo, Water Street, North Parking Lot.
Trip leaves at 8:00am sharp!
Collecting potential: Magnetite, Pyrrhotite, Pyrite, Calcite, Hornblende, Pyroxene, Chalcopyrite, Garnet and Epidote.
- June 17th Dufferin Quarry – Buckhorn**
Meet at Peterborough Zoo, Water Street, North Parking Lot.
Trip leaves at 8:00am sharp!
Collecting potential: Pyrite, fossils
- June 24th Silver Crater Mine, Cardiff**
Meet at Peterborough Zoo, Water Street, North Parking Lot.
Trip leaves at 8:00am sharp!
Collecting potential, Mica, Apatite, Betafite, Zircon, Hornblende

What's in a Name?

Part 2

by Beverly Fox

Last issue I discussed the beginnings of classification of organisms and how binomial naming was begun by Carl von Linné using Latin for genus and species names. He not only Latinized the names of organisms, but also Latinized his own name so now he is more often referred to as **Carolus Linnaeus** or simply **Linnaeus**.

As we noted, Linnaeus ranked or classified organisms from smaller groups (genus and species) into successively larger and more general groupings based upon the visible structures of the organisms. These various groupings are known generally as **taxa** (singular: **taxon**). **Taxonomy** is the analysis of an organism's characteristics for the purpose of assigning the organism to a taxon. Over time biological knowledge has grown and the range of characteristics now used in taxonomy have become much more extensive.

As knowledge of organisms increased with the use of more sophisticated methods of studying them, it became apparent that two kingdoms were not sufficient to encompass all organisms, so various systems of classification were developed with three, four and five kingdoms to try to accommodate all living organisms. However, even the five kingdom system could not adequately classify some organisms found by microbiologists.

In the 1980's, microbiologist Carl Woese, proposed the reorganization of the five kingdoms into three domains. He used computers to organize and compare vast quantities of, especially, ribosomal RNA nucleotide sequences to establish the relatedness of organisms. The availability of molecular data meant that evolutionary biologists increasingly used **cladistic analysis** or **phylogenetic systematics** to aid in construction of **phylogenetic** (family) trees encompassing all organisms.

It is not the purpose of this article to study in depth the various systems of classifying organisms, nor to pursue the arguments for or against these. It is only to make my readers aware that there are several methods in use for classification of organisms. Use of the taxa of kingdom, phylum, class, order, and family are not consistent across the various classification systems, and there can be other levels added. Readers may find differences between references as to how an organism is classified due to the system the reference chose to use. What is consistent across systems is that there is always a genus and species name.

Here are some of the more important rules for naming zoological organisms as set out in the International Code of Zoological Nomenclature. These rules keep the names internationally unambiguous and understandable.

Binomens - A genus name is one word. A species name is binomial – the genus plus a second word. The first letter of the genus name must be capitalized, the species name is not. Both names are customarily written in italics, or underlined if handwritten or typed. (e.g. *Isotelus gigas* DeKay).

Authorship - The author's name and date of publication are typically given after the scientific name (e.g. *Eurypterus* DeKay, 1825). If the organisms name is later changed (e.g. moved to another species), the original author and sometimes the original genus is given in

parentheses (e.g. *Plaesiomys (Dinorthis) meedsi* (Winchell and Schuchert). Authors' names are often abbreviated, in particular "L." stands for Linnaeus. Anonymous publications became invalid as of 1950, but were accepted before then.

Description - After 1930, new names had to be accompanied by a description (or reference to one) telling what the name meant.

Type specimen - Descriptions must refer to an actual specimen, available for examination in a museum or other collection. There are complicated rules for determining the type if the original is lost or if there was no type specimen with the original description.

Priority - The oldest valid published name is the one that gets used. This is true even if there is some error in the original name. There are means of overruling priority, if the newer name has come into common use before the priority of the original name is recognized. Sometimes the same genus name is reused by various people unaware of the original use. Only the original name is valid. However, the same genus name can be used for a plant and an animal.

Words and Letters - The names must be pronounceable words (Latinized), using Latin letters with no markings to indicate different sounds or values of a letter. Hyphens may be used in some circumstances.

Exceptions - When an otherwise valid name would "disturb stability or universality or cause confusion" the ICZN may choose another name.

In closing, I must mention the Phylocode, a formal set of rules governing phylogenetic nomenclature. It is not yet operating, but is designed so it may be used concurrently with existing rank based codes. To view a draft of the Code, go to:

<http://www.ohiou.edu/phylocode/>

Perhaps in the future, cladograms will take the place of rank based classification systems.

Many thanks to Bev Fox for submitting this article!!

Rochester Mineralogical Symposium

The Rochester Mineralogical Symposium is an event that takes place on the second weekend in April (Except when it conflicts with Easter) This year it was on the 12 – 15 of April. Although it takes place in the US, a significant number of the Canadian mineralogical community attend including Bob Becket and George Thompson from our club.

The focus of the symposium are speakers on a wide variety of mineralogical topics ranging from technical papers to mineral related travelogues.

One of the highlights this year were the ever popular "What's New in Minerals" by Jeff

Scovil. Jeff summarises new finds in the world of mineralogy accompanied by his world class specimen photography. This is eye candy for all levels of collectors.

Another highlight was Dudley Blauwet's travelogue to North Vietnam in search of spinel and other gem minerals. Dudley has travelled all over Asia in search of minerals and has visited some of the politically less stable parts of the earth.

Rob Lavinsky gave a talk on the internet's expanding role in the hobby. The internet has revolutionized how many collectors acquire mineral specimens. The internet should be looked upon as something that complements shows, not compete against them. The internet allows greater access to specimens from more collectors.

The symposium also invites collectors and institutions to bring in displays which are very interesting. My personal highlight was seeing the wonderful crystallized copper specimens from Mamainse Point on Lake Superior displayed by Dave Joyce.

Mineral dealers set up their stock on the 4th floor of the hotel and become the focus of camaraderie amongst the attendees between and after talks, often into the wee hours of the night. Dave Joyce brings his guitar and put an a great performance in our room. This attracts several of the Canadian and American attendees to our room well into the night.

The Symposium is an educational and fun event that is well worth attending. More information can be found on the Rochester Academy of Sciences website.

Submitted by George Thompson

The Tait Farm

This Sunday's trip is to the Tait Farm near L'Amable which is well known for the dravite tourmalines and phenakites that are found there. Other minerals include quartz, pyrite, diopside, and actinolite. The site offers two distinct styles of collecting. One is the "hard rock" type where you are taking apart rock outcrop in search of tourmalines and phenakites in situ. Heavy tools such as sledge hammers, pry bars, and chisels are required. The other technique is to dig in the loose dirt and rubble and examine boulders for crystals. Although many of these boulders have been searched before, the dirt on them often obscures phenakite and tourmaline crystals. A brush is useful for cleaning these rocks off for close examination.

How do we tell the difference between the phenakite and the quartz? This is a challenge even for the experienced collector but here are a few pointers. If you are lucky enough to find a terminated phenakite, it is easy because they are much more complex than the quartz. However, terminations are uncommon so other characteristics must be relied on. I think of phenakite as having the same appearance as apatite. It has a cleavage direction perpendicular to the long axis of the crystal much like apatite and therefore shows fractures in this direction like apatite. The other distinguishing characteristic is its much higher lustre than quartz at this locality. Dirt tends to stick to the quartz crystal with greater tenacity than to the phenakite. If the surface under the dirt is highly lustrous, you probably have a phenakite. With these characteristics in mind, the collector has a better chance of telling the two minerals apart.