



# Voice of the Dinosaur

## Newsletter of the Kawartha Rock and Fossil Club

Oct. 2011 ~ Volume 23 ~ Issue 8

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Member of the CCFMS



### LAST MEETING

Sept. 13, 2011

The meeting began with the regular business meeting and committee reports given as applicable.

1. Treasurer's Report - Report accepted as given.
2. Field Trips - Scheduled trip to Marmora.
3. Show Committee
  - a. Budget for Show Mar. 3 and 4, 2012 tabled. Proposed increase of \$5.00 for table rentals. Budget with increase accepted.
4. Other Business
  - a. Bob Beckett is to represent the KRFC at the AGM of the CCFMS.
  - b. KRFC will fund a show case for the new museum in Bancroft.
  - c. KRFC dues will remain at \$25.00/family, \$20.00/single.

### Feature Presentation

Our speaker for the evening was George Thompson whose topic was "Mineral Preparation: A Collector's Perspective". With the aid of visuals, George presented a valuable guide for both mineral and fossil collectors covering proper collecting using proper tools, ways to pack material well for transport, reinforcing, repairing, possible restoration (questionable in minerals), reconstruction and cleaning of material.

The meeting finished with a discussion about the mica group minerals and coral fossil specimens our members brought in.

A silent auction was held during the coffee break consisting of some members' donations of fossils from Lakefield, Colborne Quarry, etc. Also items listed in the "For Sale" section in this Newsletter were available.

### NEXT MEETING - Oct. 11, 2011

Place - Orientation Centre, Peterborough Zoo

Time - 7:00 pm.

Agenda - Regular business meeting and review of Constitution and By-laws, if necessary, followed by the presentation.

The fossil of the evening will be gastropods (snails, slugs, limpets, whelks, etc.) and the mineral will be fluorescent minerals. Members are encouraged to bring in both long- and short-wave ultraviolet lights, if they have them, as well as samples of minerals.

Fossil collectors, bring in those gastropods fossils, but, please, no live snails or slugs.

Feature Presentation - Bob Beckett's and George Thompson's topic will be "Collecting in Nova Scotia."

## REVIEW of CONSTITUTION and BYLAWS

According to Article VI of the Constitution, the Constitution and By-laws are to be reviewed at the October meeting. At this meeting any member in good standing may propose amendments to the Constitution or By-laws as a written motion duly signed by the member and a seconder who is also a voting member in good standing. The following rules shall be observed in handling amendments.

- a. the motion is presented under New Business at a regular meeting,
- b. there shall be no discussion or voting on the motion at that meeting,
- c. the proposed amendment shall be quoted in the Newsletter following the meeting of the proposal,
- d. providing a quorum is present, the motion will be discussed under Unfinished Business and put to a vote at the next regular meeting.

## AGM and MEMBERSHIPS

Memberships are due no later than the Annual General Meeting (AGM) on January 10, 2012. The dues are still \$20.00/single and \$25.00/family. A handy renewal form is included at the end of this Newsletter. If membership is not renewed, no Newsletters will be sent and participation in field trips of any kind will no longer be allowed.

Elections for Executive positions will be held at the AGM. We will be in need of a new Treasurer as Brenda Beckett will retire at the end of December 2011. This is an excellent position for someone who is interested in becoming more involved in the Club. Brenda will show the new Treasurer "the ropes" so no one need worry about going in cold. Having been Treasurer at one time I can say it's a great way to get to know everyone in the Club.

## OUT OF PRINT GEOLOGICAL PUBLICATIONS ONLINE

The following titles are available online at <http://www.geologyontario.mndm.gov.on.ca>

The site is not easy to use, but have patience.

1. Geology of Ontario, by H.R. Willimas, R.H. Sutcliffe and G.M. Stott (editors), 1992 - Ontario Geological Survey (sv04-02.pdf)
2. Geology and Scenery, Peterborough, Bancroft and Madoc Area, by D.F. Hewitt of the Ontario Geological Survey (GB03.pdf)
3. Rock and Minerals of Ontario, D.F. Hewitt and E.B. Freeman (S013.pdf)

Go to this site for the following title: <http://www.geopub.nrcan.gc.ca/>

4. Rocks and Minerals for the Collector: Ottawa to North Bay, by Anne Sabina, recently revised.

## FOR SALE

The Club still has the following items for sale:

1 used medium tumbler: Presto-Gem with about ½ lb. each 80/320/600 grit and ¾ lb. alumina polish, and manual. Runs great.  
\$40.00

Sanding discs: qty 2 Covington 10" discs - fine and course and 1 extra paper disc.  
Like new condition. \$25.00 for all.

1 Covington 10" Grinding Wheel in very good condition.  
\$10.00

Contact Tom Jenkins if you are interested in any or all of these items. Phone: 705-745-1189 or  
Email: [tomjenkins@sympatico.ca](mailto:tomjenkins@sympatico.ca)

## INTERESTING WEBSITE

Copy this address and paste it in your browser: <http://www.johnkyrk.com/evolution.swf>

Go to the site. Click once on the time slider, then press the left mouse button and hold as you slide the time slider to the right along the track that changes from red to green. At the end of that track a new one appears below it and so on. Watch the continents on the earth in the lower left hand side change with the ages. Various animals including humans will appear and hop, run or crawl across the screen.

When you first enter the site there is a little tab in the upper left hand corner labelled "Evolution" with arrows. Click on the down arrow and you have a list of items to choose from. This is one wonderful site!

# THE FOSSIL CORNER

## GASTROPODS

By Kevin Kidd

Gastropods, commonly known as snails and slugs, are the largest class within the phylum Mollusca. The name comes from the Greek “gaster” meaning stomach, and “pod” meaning foot, since it looks as though they crawl on their bellies. In fact, their internal organs are on the opposite (dorsal) side and within the shell when one is present. The class itself is vast, second only to insects, with an estimate of between 60-80,000 living species, and at least 15,000 extinct. Gastropods are extremely varied, and not too many generalizations can be made. They have representatives in almost all environments, from your backyard garden, to mountains, deserts, lakes, rivers, forests, mudflats and the abyssal depths, including near hydrothermal vents. There are also parasitic species. The largest land snail has a shell about 20 cm long, the largest marine snail measures up to 91 cm and can weigh 18 kg. The longest snail is a parasite, living in the body cavity of sea cucumbers. It can measure up to 130 cm long, but is only 0.5 cm in diameter. The largest fossil species is *Campanile giganteum*, from the Eocene of Europe. It had a shell that measured up to 50 cm long.

Most shelled gastropods have a one-piece shell, typically coiled (Figures 1 and 2)



Figure 1



Figure 2

or spiralled (Figures 3 and 4).

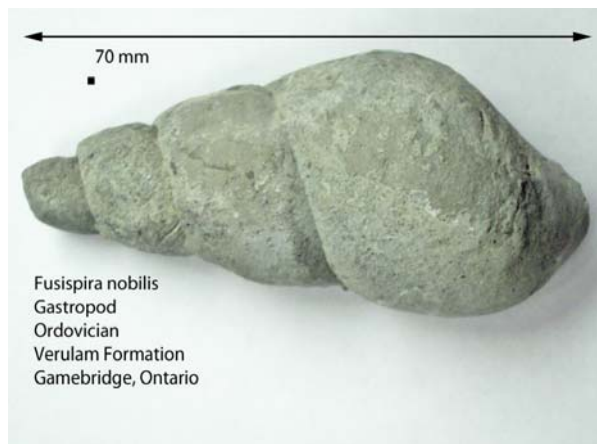


Figure 3

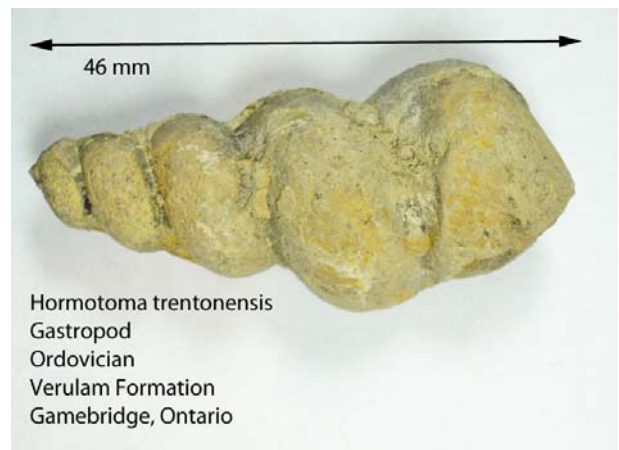


Figure 4

This coiled shell usually opens on the right side, as viewed with the coils pointing up. Some species have an operculum, basically a trap-door, over the opening for protection. The shells can be smooth, ribbed or covered with spines.

The first gastropods appeared in the late Cambrian, and were exclusively marine animals. Most of the early Paleozoic gastropods are too poorly preserved for an accurate identification. This is due to the Aragonite shell composition, and it's near inability to survive intact. (See the bivalve article in the June 2011 newsletter for a more in depth discussion on that.) During the Paleozoic, gastropods were less common than bivalves. The earliest terrestrial (land) species is found in the Carboniferous coal measures in Europe, 299-359 million years old, but relatives to modern land snails are rare prior to the Cretaceous. It was during the Mesozoic (Triassic, Jurassic & Cretaceous) that the ancestors of many of the living species evolved, and they haven't changed all that much since, especially compared to mammals. Gastropods are also one of the few groups that are used to record changes in the fauna caused by the advance and retreat of the ice sheets during the Pleistocene.

There are dozens of fossil species to be found in the rocks of Ontario, some up to several centimeters long, all you need to do is get out there and find them.

Photo credits- personal collection

## MEMBER'S CORNER

### Outa' Site! Fossil collecting tips (part 2) by Martin Legemaate

Have you ever been frustrated about visiting a known fossil site location only to find a new sign posted "Protected site. No removing of any material," translated for us rock hounds it means "No fossil collecting." It's a little ironic because conserving these sites and not allowing collectors actually allows for the quick deterioration of fossils because of exposure to the elements and (the fossils) are now lost forever which in turn inhibits study and research! So what are the alternatives? Perhaps road cuts near the protected site that cut through the same rock formation, but these are usually too dangerous especially for kids. More and more sites are being enclosed in parks, too and thus are off limits to hammers.

I have just recently discovered another good collecting alternative when I was in the Whitby area studying of all things "the Whitby Shale" (now called the Collingwood member of the Upper Lindsay Formation). I came across a dormant construction site with piles of glacial till (Figure 1) also containing slabs of bedrock shale. Usually around a several mile radius of a bedrock site the upper glacial till contains pieces of the same bedrock. As the glaciers moved across this area of North America it scraped up bedrock and redistributed it near by.



Figure 1  
A simple glacial till pile can yield great fossils.



The shale is the same stuff that is exposed on the shore of Georgian Bay at Craigeleith and in the St. Mary's quarry in Bowmanville. It is an oil shale and is chock full of fossils including the trilobites *Pseudogygites* and *Triarthrus*. So what do I do when I want to check the quality of a site? What I usually do, bring a bunch of kids to poke around. (They tend to find the good small stuff!).

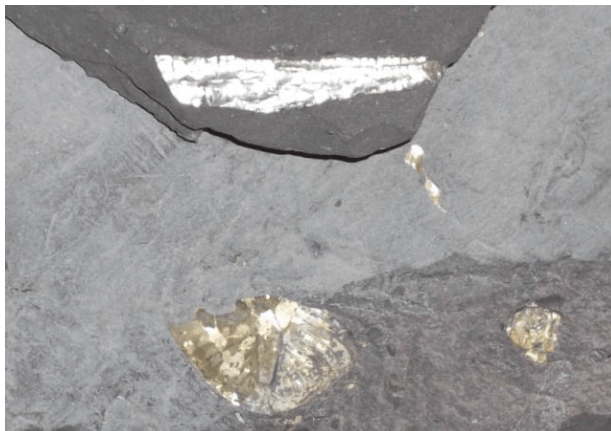


Miriam Legemaate and Rebecca Kenyon splitting open black oil shale looking for that perfect specimen.



Mitchell Milligan finds some excellent fossils.

It produced a good yield and the kids had a good time. So if you too are frustrated at the disappearing fossil sites just check out your local gravel pile. You, too, may be surprised!



Amazing pyritized fossils are found here.

Also submitted to the NPGS newsletter.

## FIELD TRIPS

### Fossil Collecting Trips – Part 2 By Kevin Kidd

#### July 23/2011 Hungry Hollow, Ontario

Hungry Hollow is a little hamlet in southwestern Ontario, near the town of Arkona, about 45 minutes west of London, and the area is renowned for its Devonian fossils -385 million years or so old. The fossils are exposed in a couple of clay pits, and on exposures eroded out by the Ausable River. The fossils are often found loose, or on small pieces of matrix as they erode out of the clay and generally are very plentiful.

On Saturday, the first day of our 2 day trip, there were about a dozen collectors willing to brave the heat and humidity and try their hand at collecting. There were a few children in the group, which was nice to see (mine decided that the beach was more to their liking) and one special guest visiting Canada from Germany. I gave the brief geology lesson to any who were interested, and we started our hunt around 9:00 am (already sweating)

There are six main hunting areas at Hungry Hollow –the south pit, the riverbank by the old bridge, the north high banks, the area just outside the gate to the north pit, the high banks across the river from the north pit to the west, and obviously, the north pit itself. We poked around outside the gate until the majority had arrived and then made our way in to the north pit.



The Gate



The Group

Due to some advanced scouting by Peter Lee, we knew that the pond in the center of the pit had recently been pumped dry, and they were digging deeper into the newly exposed clay. I had high hopes for this area, but it didn't take long to realize this wouldn't be a productive zone. The clay which had formerly been underwater had dried very quickly due to lack of rain and was very fragile. Peter found a decent prone trilobite down there, but it quickly disintegrated. No rain also meant nothing was eroding out. One person found a layer of brachiopods, but it was a lot of work to dig them out, and it was really heating up. After a while longer of fruitless searching, some of our group decided to try the south pit. I stayed behind with Nick and Elfi and we made our way to the banks across the river (sweating heavily now).



The North Pit

There are two ways to access this exposure; you can park at the south pit and walk along the riverbank or, from the north pit, wade through the river. After seeing that it wasn't more than calf deep, we decided to walk through, and did it ever feel nice. The three geologic formations are clearly visible here, with the Arkona formation at the bottom under the lower limestone shelf, the Hungry Hollow formation (or member of the Widder, depending on the source) from the bottom of the lower shelf to the bottom of the upper shelf, and the Widder above that.



West high banks



The Hungry Hollow is packed with fossils, most notably the brachiopod *Mucrospirifer thedfordensis* and horn coral *Heliophyllum halli* (Fig 1). I have several examples of each, but there are so many, I can't help but pick up a few. The larger horn corals often have other things growing on them, which is a nice bonus. Nick and Elfi were in their glory picking up brachs to try to wire wrap and I was finding lots of trilo-bits, but nothing complete.



Figure 1  
Horn coral - *Heliophyllum halli*

I did make my most significant find here however; near the river's edge on a large slab of limestone, I found my first Devonian tooth (Fig. 2). It comes from an armoured fish known as a placoderm, specifically a Ptyctodontid, and is 23 mm long.



Figure 2  
Tooth of a Ptyctodontid

The others in the south pit were also having a tough time of it, with Peter being the only one finding something unique. It had been suggested that it may be a brood of juvenile trilobites or shrimp-like creatures bunched up in a burrow, but it turned out to be *Tasmanites* –algal cysts (Fig 3). While not as glamorous as a trilobite nest would have been, still interesting and something I'd not seen before.



Figure 3  
Algal cysts of *Tasmanites*

After a while, we decided to leave this area and check the riverbank by the old bridge (down the hill to the left of the gate). As we arrived there, the others had come back from the south pit and had the same plan as us. We made our way down the hill (profuse sweating now, getting in my eyes and making it hard to see clearly).

Not much down here of interest to me, but everyone was still picking up bits and pieces. One collector managed to find the majority of a trilobite, flattened, but intact and stable. I did spot a coral I needed for my collection, but I didn't feel like going up the hill, getting my saw, coming back down, cutting it out and



South Pit

carting everything back up. It was just too hot, and the coral, while uncommon, isn't real rare and can often be found loose. It still sits there.

By now it was mid-afternoon and people were starting to leave. I took whoever remained, all of whom were at the south pit earlier, back to the banks across the river. We poked around for a couple more hours, not finding much, and then called it a day. The AC in the car was a very welcomed treat (sorry Malcolm, I should have brought a spare shirt).

### July 24- Day 2

I arrived early on Sunday, wanting to check the south pit for myself. I stayed at the Pinery Park, about 20 minutes from Arkona, Saturday night, and it poured rain there. Evidently, it was pretty localized. There had been some rain at the pits, not enough to be beneficial, but enough to make the air thick with humidity (Oh great, 8:00 am and already sweating!). I was on a time limit, we had to be off the campsite by 2:00 pm and I had to get back there to help, so I tried to be quick yet thorough at the same time. As with the group the day before, I didn't find much—a couple of fragments of a sheet-type coral larger than what I already had, but not much else. Around 9:00 am, I made my way back to the north pit to meet with a couple of collectors who'd arrived in the meantime. Another arrived with her daughter shortly after I got over there. Of the five of us, three were first time collectors, and they were full of questions. We searched outside the gate again for a bit, and then made our way inside. It was no different than Saturday, but the “newbies” were excited by everything, so that made it interesting. The other “veteran” took the mother and daughter to the high banks, while I stayed in the pit with a nice fellow who, ironically, lives close to where I work. He was asking about the Scarborough Club Show coming up and may become a club member. Who knew I'd be recruiting so far from home. I pointed out to him a trilobite eye sticking out of the clay. He popped it out with some surrounding matrix and, after picking off the loose material, had himself a complete but somewhat crushed Phacops trilobite (Fig 4). That made his day.



Figure 4  
Phacops trilobite

I was running out of time, so I showed him the path to follow to get to the others and made my way out. As I was just getting ready to leave, David and Beth, another couple I knew, showed up unexpectedly. We chatted briefly, and I was told later that Beth found her first trilobite that afternoon. Martin Legemaate's daughter managed to join the trilobite club as well (Fig 5), so the hunt seemed to improve as time went on. Either that or I'm a bit of a jinx.



Figure 5  
Miriam Legemaate with trilobite

To anyone who didn't show up, you didn't miss much. The heat was nasty, if you didn't already pick up on my subtle hints, and the finds were limited. To those who did come out, thanks for making it a great trip, despite the circumstances.

Happy hunting everyone.

### Editor's note:

In the September 2011 issue of Micronews, (copy in KRFC library) Peter Lee has several excellent photos of the “Middle Devonian Tasmanites (algal cysts) spores” that he found “in a burrow in the Hamilton Group.”, as mentioned in Kevin's Field Trip Report above (See Figure 3.). He, also, has a photo of part of a jaw with teeth from the primitive shark *Omalodus grabau* (Hussakof & Bryant, 1918) that he found in the “Arkona bone bed”.



## THE EDITOR'S CORNER

Thanks to Kevin Kidd for his entertaining and informative report on the Field Trip to Hungry Hollow and for the article on gastropods. Your excellent photos are a welcome addition to the articles.

Thanks also to Martin Legemaate for the continuation of his interesting article on collecting, complete with photos.

We have Bob Beckett to thank for furnishing the useful information on out-of-print material on line.

Thanks to Peter Lee for sending along the September issue of Micronews with photos and commentary on his finds.

Information from members is vital and helps to make each issue of the Newsletter relevant to its readers. If you would like to write an article on a subject relating to geology, etc. or have found something you believe might be of interest to the members, let me know. Also, if you have interest in a subject that relates to geology, etc. and believe the other members might be interested, let me know and I'll see about finding an article on that subject matter.

### FIELD TRIP TO LACEY MINE RESCHEDULED

Trip date: Sunday, October 16, 2011

- Place - Lacey Mine close to Kingston, ON
- To attend this trip contact trip leader George Thompson for details.
- Phone: 613-395-5896      Email: [truenorthminer@aol.com](mailto:truenorthminer@aol.com)

### FIELD TRIP to MARMORATON QUARRY

Trip date: Sunday, October 30, 2011

- Meet at the quarry gate at 9:00AM for the Safety Talk and Sign In. All enter the Quarry at 9:15AM.
- Late comers will not be permitted to enter.
- In accordance with the rules of access, you must wear Safety Boots, Safety Glasses, Hard Hat and an approved Safety Vest at all times while on the site.
- Photo identification, such as a drivers license, may be required to be shown to the AECON representative when you "Sign In" and sign the Liability Release Waiver.
- All participants will be required to show a Valid CCFMS Club Membership Card at the gate.
- Persons under the age of 16 years ARE NOT permitted on the site.
- All persons are to be off the site by 4:00pm.
- COLLECTING IS LIMITED TO 20 MEMBERS ONLY.
- Priority will be given to KRFC members.
- To be eligible to attend this trip YOU MUST contact Bob Beckett by email or phone and advise him that you want to attend. He must know the name and Club affiliation of all persons wishing to attend. Simply stating a guest and yourself is not sufficient.
- If you have not spoken with Bob directly or sent an email and received a reply from him by noon Tuesday October 25th you will not be able to attend this trip.
- Bob will not be able to attend this trip so he will advise you regarding who the trip leader will be before the trip date.
- Bob Beckett phone: 705-748-0178      Email: [rbeckett@cogeco.ca](mailto:rbeckett@cogeco.ca)

### COMING EVENTS

OCT. 15-16, 2011 42nd Annual Gem Storm. Show and sale sponsored by the Kingston Lapidary and Mineral Club

Sat. 10-6, Sun. 10-5.

Portsmouth Olympic Harbour, 53 Yonge St., Kingston, ON.

Features: Over 30 dealers; Children's mine, Jewellery Workshop

Information: Contact Les Moss, Show Chairman at [emoss@cogeco.net](mailto:emoss@cogeco.net)

Website: <http://www.mineralclub.ca>

**OCT. 28-29, 2011 The University of Waterloo Gem and Mineral Show**

Friday, 12 Noon to 6 PM; Saturday, 10 AM to 5 PM.

CEIT Building, UW campus

This year the show is being held on Friday and Saturday instead of the usual Saturday and Sunday.

Minerals, gemstones, rocks, fossils, jewellery; Saturday science event for kids.

**NOV. 2-9, 2011 Robert Hall Originals Annual Fall Open House - 8 Days of Christmas!**

Wednesday November 2 to Wednesday November 9. All days 10 am-5pm

138 Sugar Maple Road, St. George, Ontario

Admission: Free

Features: Visit Robert Hall Originals for our Annual Fall Open House. Rocks, minerals, gems, beads, lapidary demonstrations & more!

Contact: [robert@roberthalloriginals.com](mailto:robert@roberthalloriginals.com) or (519) 448-1236 or 1-800-360-2813

Website: <http://www.roberthalloriginals.com>

**NOV. 12 CMMA Fall Mini-Conference**

The Burlington Arts & Cultural Centre, 1333 Lakeshore Road, Burlington. ON

Contact: Bill Lechner at 416-438-8908 or [bill.lechner@rogers.com](mailto:bill.lechner@rogers.com)

Website: <http://canadianmicrominerals.ca/>

**NOV. 19-20 London Gem and Mineral Show**

Saturday 9:00 am - 6:00 pm      Sunday 10:00 am - 5:00 pm

Western Fairgrounds (Special Events Building)

Highway #401 to Highbury exit North, West on Florence, North on Rectory - Main entrance immediately on right hand side.

Features: Over 35 dealers, demonstrators, and educational talks

Admission: Adults \$5.00, Children \$2.00

Contact: Ken Dardano 519-831-3093 or [gneissguy@bell.net](mailto:gneissguy@bell.net)

Website: [www.gemandmineral.ca](http://www.gemandmineral.ca)

# KAWARTHA ROCK & FOSSIL CLUB INC. 2011

MEMBERSHIP Application [ ] or Renewal [ ]

Please complete ALL sections and PRINT CLEARLY

NAME(S): \_\_\_\_\_

(if a family, list each person's name – parent/legal guardian followed by child/ren & please include the child(ren)'s ages)

ADDRESS: \_\_\_\_\_

(City) \_\_\_\_\_ (Province) \_\_\_\_\_ (Postal Code) \_\_\_\_\_

Please sign here \_\_\_\_\_

Phone # \_\_\_\_\_ Fax # \_\_\_\_\_

E-Mail \_\_\_\_\_

Single [ ] \$20.00/year

Family [ ] \$25.00/year

Please send Newsletters by: E-mail [ ] Fax [ ] Snail Mail [ ]

PLEASE MAKE CHEQUES OR MONEY ORDERS PAYABLE TO THE  
KAWARTHA ROCK & FOSSIL CLUB, INC.

If paying by mail, send to: The KRFC Treasurer – 1211 Kenneth Avenue – PETERBOROUGH, Ontario K9J 5P8.

**DO NOT SEND CASH THROUGH THE MAIL!**

### FOR OFFICE USE ONLY

Paid by: Cheque [ ] Cheque # \_\_\_\_\_ or Cash [ ] \$ \_\_\_\_\_

Date: \_\_\_\_\_ Membership Card Issued [ ]

**Club Memberships are due in December at the Annual General Meeting, or as soon after as possible.** Members who do not renew before the end of December are dropped from the Membership List, will not be able to participate in KRFC or CCFMS field trips, other Club activities and will not receive the KRFC Club Newsletter.

**If you do not want your information released, please do not complete the following section.**

I hereby give my permission to release my name, telephone number and e-mail for inclusion in a KRFC Contact List, to be only issued to KRFC members in good standing.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_