



BUGLE



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RIPPLE ROCK GEM & MINERAL CLUB
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Regular monthly meeting
2nd Friday each month at 7:30 pm
(Except June, July & August)
Craft Room, Campbell River Community Hall
401-11th Ave
Campbell River, BC



RIPPLE ROCK GEM & MINERAL CLUB

RIPPLE ROCK EXECUTIVE 2016

President	Linda Henderson	250-286-1718
Vice-President	Janice Boyes	250-337-8461
Past President	Kathy Young	250-285-3343
Secretary	Steve Cooley	250-287-4388
Treasurer	Dennis Cambrey	250-337-8949
Wagonmaster	Shane Mawhinney	250-285-3465
Assistant Wagonmaster(s)	<i>vacant</i>	
Show Chair	Pat Doyle	250-285-2377
Shop Coordinator	Beba Adams	250-926-0044
Shop Maintenance	<i>vacant</i>	
Entertainment	<i>vacant</i>	250-285-2377
Publicity	Diane Cooper	250-830-0889
Bugle Editor	Gordon Burkholder	250-923-1740
Non-Executive Positions		
Webpage Manager	Janet Burkholder	info@ripplerockgemand mineralclub.com
Showcase	Beba Adams	250-926-0044
Slab Draw/Collection	Beba Adams	250-926-0044
Coffee Break	Jack and Jan Boyes	250-337-8461
Basic Lapidary Instructors	Steve Cooley Gordon Burkholder	250-287-4388 250-923-1740

Delegates to Vancouver Island Zone Meetings

Senior	Jan Boyes
Intermediate	Melissa Ticknor
Junior	<i>vacant</i>

WORKSHOP

Shop located at 246 Dahl Rd.
 For general shop info contact
Beba Adams 250-926-0044
**The workshop hours are posted on the
 club website.**
www.ripplerockgemandmineralclub.com

MEMBERSHIPS

A single membership is \$15.00 and a family is \$25.00. Memberships may be paid at the *General meetings* or by mail to Box 6 Campbell River, BC, V9W 4Z9.

Election Results

All positions were filled by acclimation with several opportunities remaining available for some interested club member. There would not be a need for election as the President can appoint people to vacant positions. Just let Linda know of your interest.

Executive Positions

President	Linda Henderson
Vice President	Janice Boyes
Secretary	Steve Cooley
Treasurer	Dennis Cambrey
Wagon Master	Shane Mawhinney
Assistant Wagonmaster	<i>vacant</i>
Show Chair	Pat Doyle
Shop Coordinator	Beba Adams
Shop maintenance	<i>vacant</i>
Entertainment	<i>vacant</i>
Publicity	Diane Cooper
Bugle Editor	Gordon Burkholder

Non-Elected non-executive positions

Webpage	Janet Burkholder
Showcase	Beba Adams and (name needed)
Slab Draw	Beba Adams
Coffee and goodies	Jack and Jan Boyes
Basic lapidary instructors	Steve Cooley, Gordon Burkholder

Zone Senior Delegate Janice Boyes
Zone Intermediate Delegate Melissa Ticknor
Zone Junior Delegate *vacant*

Taken from the January meeting's minutes provided by **Steve Cooley**

Wagon Master's Report

We are planning for a Fraser River bar trip in late March. Long term records of the water levels of the Fraser River show low water is in January, February and March. Timing of trips hinges on when there is least likely to be snow on the gravel bars.

Shane Mawhinney

Gemboree Report

I have submitted 2 articles and the Gemboree announcement to the editor of the BCLS Rock Hound magazine for publication in the Spring issue. Jan Boyes reported that 12 people have registered and taken advantage of the early registration pricing so far.

The Bonanza Lake marble and Gordonite sites will surely be visited during the Gemboree scheduled for July of 2017. For more information visit www.riplerockgemandmineralclub.com Early bird registrations are \$30 and includes a BBQ and Pancake breakfast while 'at-the-door' registration is \$50. Camping sites should be booked early with the **Cluxewe Resort** to avoid disappointment. Let them know you're with the Gemboree and they can help you arrange for a site. Cabins are available but limited numbers suggest you book right away.

Gordon Burkholder

Show Chair Report

The time and place is set:

Timberline Gymnasium - June 10 and 11 - From 10a.m. – 4p.m. daily

Set up will be done on the 9th starting at 3:30 and take down will follow right on the close of the show. **[**Members should keep these dates and times free in order to help with these vital tasks.**]**

Tables are organized through the usual supplier. Rentals for vendors can be ordered from Pat Doyle. Last year's vendors and BC clubs will be emailed this coming week.

Food vendor being sought and preliminary discussions are being held with "Baba Ganoush".

Beba Adams is looking for ideas about the theme for our Rock Club's Display Case and also needs an assistant.

Pat Doyle

Shop Report

After the big snowfall before Christmas a number of large tree limbs from the neighboring yard broke off the tree and landed on our storage shed. It has damaged the roof beyond repair. We are planning to put a tarp over the roof as soon as we can to stop water from coming into the shed. After that we will have to find out if the roof can be replaced or if we need to get a new storage shed.

Beba Adams

(Editor's note. I hope we look into the Home owner's Insurance for the coverage of the repair.)

Web Page Coordinator

If you want anything entered or deleted from the Web Page, please contact me (Janet Burkholder) at info@riplerockgemandmineralclub.com with the details and any documents necessary. Time sensitive items like field trips and Show details should be provided as early as possible. Thanks.

Janet Burkholder

Membership Notes

Renewal of your membership was due on January 1st. If you have not renewed please make arrangements to do so.

Our current membership list is available and we have 30 names on our list of course some of these are family memberships so the actual numbers are greater.

Dennis Cambrey

NIC courses being offered

We need a few more registrants in these workshops for them to fly, so don't hesitate... register today (and tell your friends)!

Silver Jewellery Making – Beginners ([GENI 1205](#))

Instructor: Cheryl Jacobs

6 Sat's, Feb 11 to March 25, 2017

\$319 including materials

Hammered Link Bracelet ([GENI 1224](#))

Instructor: Tracey Gibbons

Sun, March 19, 2017

10 am to 4 pm

\$139 including materials

For more info and registration forms contact JULIA PETERS / Regional Continuing Education and Training Officer at NIC

Editor's Comment

I have been enjoying the sunshine and trying to stay out of the cold winds that blow down here. The beaches have not proven very fruitful for rocks but I have written an article that was inspired by my daily walks in the sands and shallows that front our campsite. Enjoy this latest edition. Thanks to Dennis Cambrey and Steve Cooley for the photos used in the Bonanza Lake article.

Gordon Burkholder

Quotable Quote: "All that is gold does not glitter, not all those who wander are lost;
The old that is strong does not wither, deep roots are not reached by the frost.
From the ashes a fire shall be woken, a light from the shadows shall spring;
Renewed shall be blade that was broken, the crownless again shall be king."

BONANZA LAKE

Bonanza Lake, BC

On Vancouver Island there are many locations where marble can be found but the seam around the Bonanza Lake is quite large and very interesting. There are signs of how the marble was 'mined' at the main site and I marvel at how such large pieces of rock would have been hauled out of the backcountry to transport to the mill site for working. Indeed, moving 25 tonne pieces of rock onto a flatbed would have been an engineering feat in itself.



A view of some of the marble at Bonanza Lake
Photo by Steve Cooley

Minfile # 092L339 describes the site thusly:

"The Leo D'or marble prospect is located approximately 30 kilometres southwest of Port McNeill on northern Vancouver Island. The property is situated at the northeast end of Bonanza Lake on a tree covered slope which rises from the lake shore to the east at an average slope of 30 degrees.

A band of limestone of the Upper Triassic Quatsino Formation, Vancouver Group, up to 2.5 kilometres wide, trends northward along the east side of Bonanza River and Bonanza Lake for 6.25 kilometres. To the west, the limestone is in fault contact with basaltic flows of the Upper Triassic Karmutsen Formation, Vancouver Group. An elongate stock of coarse-grained, biotite quartz monzonite of the Early to Middle Jurassic Island Plutonic Suite intrudes the limestone from the southeast. On the Leo D'or property, the limestone has been recrystallized to marble by these intrusions. Discontinuous dykes of basalt, averaging 60 centimetres in width, are also observed throughout the area."

The file goes on to state: “The marble varies in colour from very light grey to dark grey or almost black, to mottled grey and white. In some areas, distinct black to light grey bands of marble, varying from several centimetres to several metres, occur. The grain size of the marble varies from fine to coarse grained; the majority (approximately 75 per cent) is medium grained. Light brown to light orange surface staining is caused by the oxidation of iron impurities in the marble.”

Our explorations of the area have revealed some interesting caves and water worn formations that are accessible to most people by climbing up a short steep path. The sight at the end of this climb is worth the physical exertion.



Rock formations created by flowing water through the limestone
Photos by Steve Cooley

Other finds in this area include some very colourful Gordonite that we stumbled upon while the construction of the Kokish Dam was underway.



Gordonite vein



Gordonite

Photos by Dennis Cambrey

Gordon Burkholder

Quotable Quote: "**All that glisters is not gold**; often have you heard that told. Many a man his life hath sold but my outside to behold. Gilded tombs do worms enfold."

"Merchant of Venice" - William Shakespeare;

MICA

I am currently residing above a beach just north of San Felipe, Baja California, Mexico that is littered with 'gold' specks. They are collected in the sand ripples and are suspended in them at low tide. My friend and fellow rock hound, Dale Jensen, made comment of the glistening flakes as we strolled along the beach in search of clams. "How many people who walked here before us were in belief that the flakes were actually gold?" he wondered aloud.

Of course they are not 'gold' flakes nor are they pyrite they are however mica. This identification made me curious.



A larger area of the beach with glitter



close up of the glittering mica

The research I did turned up a great deal of information about the mineral that I was oblivious to beforehand. It also reminded me of the 2 quotes cited in this edition one by JRR Tolkien and the other by the bard, Shakespeare as well as the lyric by Bruce Cockburn.

Quote:

"All the diamonds in this world that mean anything to me are conjured up by wind and sunlight sparkling on the sea."

"All the Diamonds" -Bruce Cockburn

Mica

From Wikipedia

Category

Mineral silicates

Color

Purple, rosy, silver, gray (lepidolite);



Dark green, brown, black (biotite);



Yellowish-brown, green white (phlogopite);



Colorless, transparent (muscovite)



Hardness 2.5-4

Lepidolite 2.5-3 biotite; 2.5-3 phlogopite; 2-2.5 muscovite

Luster

Pearly, vitreous

Streak

White, colorless

Specific gravity

2.8–3.1

The mica group of sheet silicate (phyllosilicate) minerals includes several closely related materials having nearly perfect basal cleavage. All are monoclinic, with a tendency towards pseudo hexagonal crystals, and are similar in chemical composition. The nearly perfect cleavage, which is the most prominent characteristic of mica, is explained by the hexagonal sheet-like arrangement of its atoms.

The word mica is derived from the Latin word mica, meaning a crumb, and probably influenced by micare, to glitter.

My continued research led me to discover that mica beaches are quite rare. But the beaches around here are littered with the sparking flakes and upon further examination the hexagonally shaped crystals can be found in larger 'books' in the sand almost everywhere.



Three samples of the phlogopite crystals on Playas del Sol

It doesn't take much mica to make a beach sparkle, says the beach conservation website coastalcare.org. Thanks to a sheet-like atomic arrangement, specks of mica end up being lightweight and flat, meaning that they're easily washed away by waves. However, the shiny flat flakes act like millions of tiny mirrors thrown into the sand, and are so reflective in the sunlight that they are visible even when mica accounts for less than one percent of the sand grains on a beach, the site says.

Mica is widely distributed and occurs in igneous, metamorphic and sedimentary regimes. Large crystals of mica used for various applications are typically mined from granitic pegmatites.

The largest documented single crystal of mica (phlogopite) was found in Lacey Mine, Ontario, Canada; it measured 10 x 4.3 x 4.3 m and weighed about 330 tonnes.

The mica group represents 37 phyllosilicate minerals that have a layered or platy texture. The commercially important micas are muscovite and phlogopite, which are used in a variety of applications.

Mica's value is based on several of its unique physical properties. The crystalline structure of mica forms layers that can be split or delaminated into thin sheets usually causing foliation in rocks. These sheets are chemically inert, dielectric, elastic, flexible, hydrophilic, insulating, lightweight, platy, reflective, refractive, resilient, and range in opacity from transparent to opaque. Mica is stable when exposed to electricity, light, moisture, and extreme temperatures.

Muscovite, the principal mica used by the electrical industry, is used in capacitors that are ideal for high frequency and radio frequency. Phlogopite mica remains stable at higher temperatures (to 900 °C (1,650 °F)) and is

