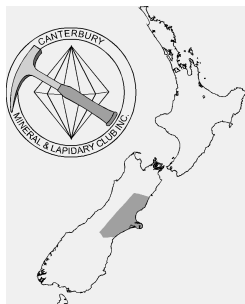


# The CMLC News

The Canterbury Mineral & Lapidary Club Inc

## Newsletter for October 2009



**President** – Scott Hardwick.....Phone 3289322

**Treasurer** – Lynda Alexander.....Phone 3476393

**Secretary** – Don Stanley.....Phone 3588299

**Address:** 91b Merrin St, Avonhead, Christchurch 8042

**E-Mail:** cmlclub@chch.planet.org.nz

**Web site:** [www.cmlclub.org.nz](http://www.cmlclub.org.nz)

**Meetings Venue & Club Rooms:**

110 Waltham Road, Waltham, Christchurch

7.30 pm on the second Thursday of each month

From February to November

**“Geology is a capital science to begin with, as it requires nothing but a little reading, thinking and hammering.” *Charles Darwin, 1835.***

### **NEXT -**

**Micro Mineral Meeting: Wednesday 7th October 2009 at 7.30 PM**

**General Meeting: Thursday, 8th October 2009, at 7.30 PM**

**Field Trip:** Conway River on Saturday 17th. Trip leader is Vince Burke, graded 2. Meet at the Belfast Tavern car park at 7.30am for car pooling and convoy departure.

**Website to check out this month:** [www.walkfourpeeks.co.nz](http://www.walkfourpeeks.co.nz)

### **Monthly Competition Results for September**

Worked Obsidian - 1st David Macdonald

Worked Amethyst - 1st David Macdonald

### **Monthly Competition for October**

3 Tiger Eye Cabs

Polished piece petrified wood (O/W)

Domed but end of Rhodonite

Juniors: Piece fossil bone

Alphabet material - A

### **From the Front Desk - Your Committee**

**Auction**—this month we have some more of Brian Jones surplus material

**Speaker**—Lindsay Johnston from the Antarctic Centre is our guest speaker at the October General Meeting.

**Donation Box.** Please bring in a gold coin donation for the club at the regular general meetings so we can raise funds for the building repairs. A rough estimation of \$1500 was suggested as the amount necessary for that purpose. Thanks to all who donated.

**A Reminder** regarding the club show the committee would like to hold up to 3 raffles and are seeking prizes for this. If any member has something suitable please let a committee member know, likewise if you know someone prepared to donate prizes please do what ever is necessary to facilitate the matter. Grocery items that are non perishable would also be appreciated

**Overseas field trip.** The committee has been discussing the possibility of organising a club field trip to Agate Creek in Queensland over winter 2010. Please give the matter some thought for a further discussion at the October General Meeting, it would appear to be some interest so we will begin the process. Please let a committee member know if you wish to join the escapade.

**Workshop Maintenance.** A member has advised his willingness to look at the maintenance of both the building exterior and the machinery in the workshop. He will prioritise them and get on to it over the next few months. Anyone willing to assist would be appreciated.

**Club Show. Who can help, we need the support of ALL of our members.** Members from the Club Show Committee will be ringing around seeking your help in setting up / taking down and running the show.

**New Members.** We have 4 new members join the club in the last month. Please welcome Matthew Holland, Stephanie Powers, Bobby Lee and Nicky Glenjarma to the club. Please make them feel welcome and offer your help.

**Club Show 2010.** With the postponement of the large 2009 club show we were intending on having this year in support of the Blenheim club hosting the National Show the committee was giving consideration to holding a larger show next year in 2010, until it was suggested us hosting a National Show in 2011 (since the slot is still vacant and it has been some years we have hosted a National Show). The committee would like your thoughts on the matter, and a commitment to assist with the running of either show as we will have to get the venue organised sooner, rather than later.

**The Mount Somers display** is under way and they are still looking for items to display. Any member wishing to donate any material from the area for the permanent display please speak to Robin Hall or any of your committee members.

**Signs.** With the club hosting a show (7 November) this year and garage sale (5 December) and the committee is seeking members to create signs for these events to be erected on the front of the clubrooms 2 to 3 weeks before each one. Any help would be appreciated.

**Schedule of Fees & Charges and Executive Duties.** A schedule of all the fees and charges has been posted on the front wall, as has a list of duties and functions of the members partaking in the running of the club.

**Late fees on Library Books.** This is a matter that has been debated in committee for the last few months, and finally a decision has been reached. Borrowing books, DVD's and videos is to remain free for members from the Library, but it has been decided to impose a \$1 late fee when the item is not returned the following month. An additional \$4 late fee will be added when the item is not returned for the second month (a total of \$5) after which a committee member will be chasing them up for their return and payment of the late fee (to the Treasurer).

The Geobusters are wanting to fund raise their own activities and are seeking any unused and unwanted polished material including agates to bag up and sell at the Club Show. If anyone can assist please pass the material on to Liana at a general meeting

---

## **Raoul Island**

Raoul Island is the largest of the Kermadec Islands, over 1,000 kilometres north-east of the North Island. It is the emergent part of a large volcano, almost 20 kilometres in

diameter. Although apparently isolated, the island lies on the Kermadec ridge, a chain of submarine volcanoes.

The island's irregular anvil shape is due to a combination of volcanic activity and marine erosion. Detailed onshore and offshore investigations show that there are two large collapse calderas (Raoul and Denham), both of which have erupted frequently over the last few thousand years.

### **Recorded eruptions**

Eruptions have been observed and recorded in 1814, 1870, 1964 and 2006.

#### **1814**

On 9 March 1814 Captain Barnes of the *Jefferson*, who had landed in Denham Bay several days earlier, reported a thick, dark cloud above Raoul. Returning two months later, he found that there was a volcanic island made of scoria in the middle of Denham Bay. Explosive activity occurred at the same time in Raoul caldera. The scoria island had disappeared by 1854, when a survey in Denham Bay was made by HMS *Herald*.

#### **1870**

Primary records indicate that there were eruptions in both the Denham Bay and Raoul calderas between June and October 1870. Captain Preble of the *Ellen Goodspeed* described an erupting volcano in Denham Bay on 5 July that blasted a dark column of ash and steam up to 1,000 metres. In early October 1870, there were two separate volcanic islands in Denham Bay.

During the same period there was an eruption in Raoul caldera which blasted a crater 600 metres across, knocking over trees and covering the floor of the crater with mud and boulders.

### **Heading for the hills**

William Covat and his family were living in Denham Bay when eruptions started in June 1870. Alarmed by earthquakes, volcanic explosions and suffocating fumes they fled to the hills, and were very pleased to be rescued in early October. They never returned.

There was no further volcanic activity for the next 90 years, and Raoul Island has been occupied almost continuously. The area devastated in the centre of the Raoul caldera was soon covered in trees that grow rapidly in the subtropical environment.

### **Nuclear tests**

In 1954 the British government requested permission to test a hydrogen bomb in the Kermadec Islands. Although there had been eruptions in 1814 and 1870, no one recognised that Raoul was an active volcano. Indeed, the central flat area surrounded by steep cliffs (now recognised as the Raoul caldera) seemed an excellent testing spot. Fortunately the request was declined by the New Zealand government – for political reasons.

#### **1964**

A series of strong earthquakes started on 10 November 1964, and by 15 November volcanic tremor was recorded. At about the same time Green Lake started to heat up, and the level rose several metres. An explosive eruption commencing about 6am on 22 November opened a large vent near Green Lake which devastated the immediate area, and there were eleven other small vents within the Raoul caldera. Activity gradually tailed off after early February 1965. Mud ejected from the vents was confined to the central part of the Raoul caldera.

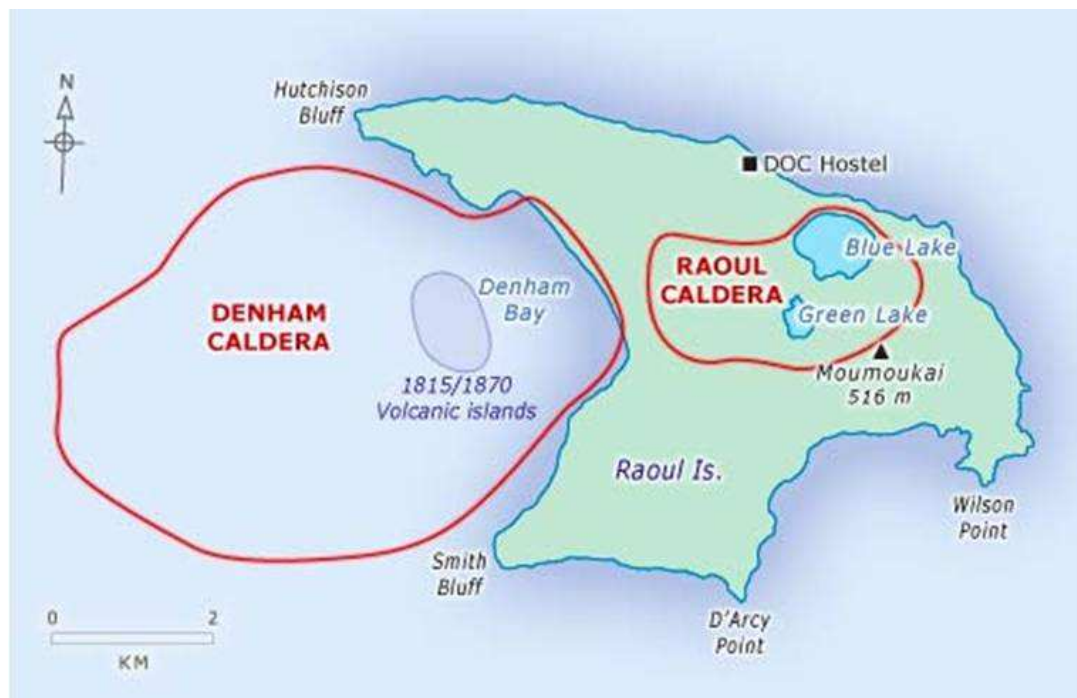
A plume of discoloured bubbling water containing pumice fragments was observed in Denham Bay in November and December.

#### **2006**

An earthquake swarm started near Raoul Island on Sunday 12 March 2006, but the tremors rapidly declined over the next few days. Then on 17 March at 8.21 a.m. there was a sudden explosive eruption near Green Lake. Mud and rocks were ejected, together with a plume of steam and gas. Mark Kearney, a Department of Conservation observer, was killed by the explosion. Green Lake was heated, and the level rose several metres during the next few days.

### Pattern of eruption

All historic eruptions include explosive activity within the Raoul caldera close to Green Lake, probably caused by disruption of the geothermal system as magma moves upwards. There appears to be a close connection with vents in the Denham caldera, as the 1814, 1870 and 1964 eruptions occurred there at the same time. It is highly probable that there will be future eruptions from the same vents.



### Raoul and Denham calderas

Raoul Island has been shaped by volcanic activity and marine erosion. In the last few thousand years volcanism has been centered in the Raoul and Denham calderas. These are collapse structures that formed after major volcanic eruptions. Although the Denham caldera is largely offshore, its existence has been confirmed by marine seismic surveys.

### **Times, Dates and information for 2009 Club Show**

**\*Reminder that the specified cab for the Bullen cup is a 30x40mm cab of NZ Jasper (same as national show).**

**\*Entry forms will be available at the October club meeting along with the competition schedule. Both can be downloaded from the club web site.**

**\*Entry forms to be handed to Dorice Grant, the Chief Steward at the club meeting. Any late entries must be advised to the Chief Steward.**

**\*Volunteers are required to help set up showcases on Thursday, 5<sup>th</sup> November starting at 1.00pm at the club-rooms. If anyone has long extension cords please bring them in case they are required.**

**\*Entries to be put in the showcases from 4.00pm to 6.00pm on Friday 6<sup>th</sup> November. Judging commences at 7.00pm.**

**\*The show opens to the public from 10.00am Saturday 7<sup>th</sup> November to 3.00pm, entry is free.**

**\*We intend to have some gift baskets as raffle prizes so any suitable items would be warmly accepted along with any nice geological items - bring along to the October club meeting.**

**\*If you can provide display material to fill showcases or would like a sales table, please see or contact John Taylor.**

With the cancellation of the September fossil field trip to Weka Pass due to lack of interest, and the recent work the club executive had commissioned on the Claypit it was decided to run a field trip last weekend to that site and members were duly e-mailed. A report on the excavation and the field trip will be in next months newsletter. The November newsletter is the last one for the year and may be late due to the editor being on an expedition to the Northland region, as well as being at the Micro Mineral Symposium.

**CANTERBURY MINERAL AND LAPIDARY CLUB**

# **MONSTER GARAGE SALE**

**110 Waltham Road, Waltham, Christchurch**

**Saturday 5th December**

**Books, tools, rocks, plants, kitchen-ware, firewood, raffles, sausage sizzle plus much, much more.**

**Doors open at 8 am and close at 2 pm**

**For further information or to donate items contact:**

**Vince Burke 3 329 0812, or**

**Lindsay Day 3 981 1587**

## For the grading of trips:

- 1-2 is beaches and river flats,
- 3-4 is hill country that is not steep,
- 4-5 is for a long trip into an area and maybe steep country (and not suit able for all members),
- 6 Mt Cook and only appropriate for the fittest and most adventurous of our members.

## **Club Diary**

October 2009

- 1-4 **Blenheim National Show**
- 7 Micro Mineral Meeting
- 8 General Meeting
- 15 Committee Meeting
- 17 Conway River F/T

**23-27 Micro Mineral Symposium**

- 31 Geobusters Meeting

November 2009

- 4 Micro Mineral Meeting
- 7 Club Show/Open Day
- 12 General Meeting
- 13-15 Show weekend Westcoast F/T
- 19 Committee Meeting
- 28 Geobusters Meeting

December 2009

5 Garage Sale & Christmas  
Break up BBQ

*Many of these dates are tentative and are subject to planning and permission considerations.*