

THE CMLC NEWS

The Canterbury Mineral & Lapidary Club Inc. Newsletter for November 2018



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Club Mailing Address: 14 Reynolds Ave Bishopdale,
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Website: www.cmlclub.org.nz
Meeting Venue & Clubrooms: 110 Waltham Road,
Waltham, Christchurch 7:30 pm on the second Thursday
of the month [Feb. to Nov.]

General Meeting:8 November, 14 February.
Committee Meeting: 8 November, (6.00 p.m.).
Micro Mineral Meeting: 1 November, 7 February

Please remember to sign into the meeting attendance book at the door and pay the \$2 door entry.

The November Meeting: We will be widely entertained by our micro-mineral group, who will bring along their microscopes for viewing minerals. If you have a micro-mineral you would like to see better, bring it along.

Supper Duty: Malcolm Luxton, Don McLauchlan, Jean Penrice, Wayne Eddy, Andy Morris.

Auction: This will be some material from Brian Jones.

New Members: Please make these new people welcome: John Cobb and Family, Amy Ramsey and family, Janina Gillies and Jim Barwell.

Field Trip: We are hoping for a trip to Whitecliffs. More details at the club meeting.

October Monthly Competition Results

| October | 1 st | 2 nd | 3 rd | 4 th |
|----------------|---------------------------|-----------------|-----------------|-----------------------|
| Lapidary: | R. Hall | J Taylor | R Knowles | D Mac Donald L Day |
| Fossil | D Mac Donald L Day | | | |
| Mineral: | L Day | D Mac Donald | | |
| Alphabet Cup: | | | | |
| Recent Find: | R. Hall | R Lindsay | | |
| Bring and Brag | D Mac Donald S Baldwin | R Lindsay | | |

November Monthly Competitions

Lapidary: Worked NZ Greenstone (Your own work, please)

Fossil: An NZ fossil more than 100 million years old.

Mineral: Spherulitic rhyolite.

Alphabet Cup: A specimen from a country or state starting with M, N, or O.

Recent Find: From the club October Field trip.

Brag: Bring something to brag about.

Club Christmas Barbecue: Saturday, 8 December. The Christmas grocery hamper raffle will be drawn at the barbecue. **Please bring along donations for this hamper at the November General Meetings and the barbecue.**

This is a great social get together and starts at 12.00 with a barbecue.

Things to Bring: Meat for the barbecue, a shared main dish and shared dessert. Bring your own drinks, cutlery and plates.

Photos Wanted: Vince Burke is gathering information on past access to Woolshed Creek. He needs any photos from the past with vehicles parked at the old Woolshed Creek Hut. If you can help him please bring the photos to the November meeting.

Dickinsonia fossil solves 558-million-year global palaeontology mystery

The world's oldest animal that lived 558 million years ago in Russia has been identified for the first time.

Scientists realised that the specimen was an animal after finding it contained traces of cholesterol, a type of fat that is the hallmark of animal life.

The strange, relatively flat organism lived 20 million years before the 'Cambrian explosion' of animal life, according to the Daily Mail.

Scientists have described the discovery of the fossil, which looks like a cross between a leaf and a thumb print, as the "Holy Grail" of palaeontology.

The bizarre marine creature, which has been named Dickinsonia, grew to almost four and a half feet long (1.4 metres), and almost just as wide.

Lead senior researcher Professor Jochen Brocks from the Australian National University, Canberra said: "The creature in fact produced cholesterol, which is the hallmark of animals. It tells us it is in fact our earliest ancestor."

The animal was oval-shaped with rib like segments running along its body.

It lived during the Ediacaran period which spanned nearly 100 million years before the start of the Cambrian period.

The "Cambrian explosion" was when complex animals and other macroscopic organisms – such as molluscs, worms, arthropods and sponges – began to dominate the fossil record.

It was not known if they were actually animals – until now, the authors wrote in the paper, published in Science.

"The fossil fat molecules we have found prove animals were large and abundant 558 million years ago, millions of years earlier than previously thought", said Professor Brocks, who is an Earth scientist.

The fossil was dug up by PhD student Ilya Bobrovskiy in a remote area on the White Sea coast in northwest Russia.

"Scientists have been fighting for more than 75 years over what Dickinsonia and other bizarre fossils of the Ediacaran Biota were: giant single-celled amoeba, lichen, failed experiments of evolution or the earliest animals on Earth", said Professor Brocks.

"The fossil fat now confirms Dickinsonia as the oldest known animal fossil, solving a decades-old mystery that has been the Holy Grail of palaeontology."



Mr Bobrovskiy said the team developed a new approach to study Dickinsonia fossils, which hold the key between the old world dominated by bacteria and the world of large animals that emerged 540 million years ago during the "Cambrian explosion".

He said: "The problem that we had to overcome was finding Dickinsonia fossils that retained some organic matter.

"Most rocks containing these fossils such as those from the Ediacara Hills in Australia have endured a lot of heat, a lot of pressure, and then they were weathered after that – these are the rocks that palaeontologists studied for many decades, which explained why they were stuck on the question of Dickinsonia's true identity."

Palaeontologists normally study the structure of fossils, but Mr Bobrovskiy extracted and analysed molecules from inside the Dickinsonia fossil found in ancient rocks in Russia to make the breakthrough discovery.

He explained: "I took a helicopter to reach this very remote part of the world – home to bears and mosquitoes – where I could find Dickinsonia fossils with organic matter still intact.

"These fossils were located in the middle of cliffs of the White Sea that are 60 to 100 metres high.

"I had to hang over the edge of a cliff on ropes and dig out huge blocks of sandstone, throw them down, wash the sandstone and repeat this process

until I found the fossils I was after."

Professor Brocks said being able to study molecules from these ancient organisms was a game-changer.

He said: "When Ilya showed me the results, I just couldn't believe it. But I also immediately saw the significance."

His international team included colleagues at the Russian Academy of Science and the Max Planck Institute for Biogeochemistry and the University of Bremen in Germany. *Thanks Don Stanley for this article.*



Greetings from Germany and Denmark

After the National Show in Tauranga, Catherine and I travelled back home. The show was excellent, and it was great to catch up with old friends; and those not so old.

After 1 day's rest, I met Hans Schumann and Jorgen Hansen at Christchurch airport, and the following day, drove down to Southland. They would like to extend their greetings to the club, as they were unable to attend any meetings. While in Southland, we spent 2 days with Jack Geerlings. He is his usual bubbly self, despite recent illness and would also like to extend his greetings to the club. This is Hans' and Jorgen's 4th trip to New Zealand, and they intend to make another one in 2 years time. We spent 4 days fossicking around Slope Point and other nearby beaches. But, Oh dear, Hans' bag was 2 kg overweight at the airport. So, oh well, maybe pay the excess baggage charge to Hamburg. \$440. Maybe not. Hurried rearrangement of bags. The following are some photos I took during our expeditions.—*Craig McGregor*





HETTIE'S ROCK & CRYSTAL SHOP

Birdwood Ave, Beckenham, Christchurch.

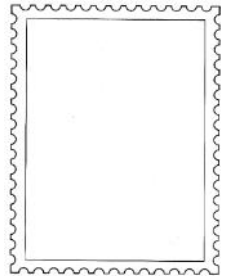
Also: Akaroa and Queenstown

Open 7 days 10 a.m. to 5 p.m.





Sender CMLC 14 Reynolds Ave Bishopdale, Christchurch 8053



«Field1»
«Field2»
«Field3»
«Field4»
«Field5»