

THE CMLC NEWS

The Canterbury Mineral & Lapidary Club Inc. Newsletter for April 2024



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Facebook: Canterbury Mineral and Lapidary Club
Meeting Venue & Clubrooms: 110 Waltham Road,
Waltham, Christchurch 7:30 pm on the second Thursday
of the month [Feb. to Nov.]

General Meeting (7.30pm): April 11, May 9
Committee Meeting (7pm): April 18, May 16
Micro Mineral Meeting: Tuesday evenings (7 pm)
Workshops: Every Tuesday evenings, 6.30 p.m.
Geobusters: Sunday afternoons every second month.
www.geobusters.co.nz; Facebook.

The April Meeting: There will be a talk by Allan Mitchel from the Otago Club about ventifacts. Allan has been collecting these for many years from various localities. Want to know more about ventifacts? Come along to the meeting.

Kitchen Duty for the April Meeting: Margot Janssen-Hansen, Bill Johnson, Roger Knowles, Val Lear, Stephanie Lee, Rob Lindsay, Campbell Lintott, Mark Luxton, David Macdonald
Lay out the tea, milk, coffee and cups. Do dishes and tidy up the kitchen after the meeting.

March Meeting Auction: Material from Ken Sitarz. A photo of the material is in this newsletter. Included are Rock Stacks, Candle Rocks, Rolling Stones(wheels turn), Candle Lites, Agate Halo, Agate Heart, Agate Star and some worked items



The March Monthly Competitions Results

Lapidary - own polished lapidary work containing the colour brown...

First. John Taylor, Second. Craig McGregor, Third. Lindsay Day

Fossil - North Island fossil...

First. John Taylor

Mineral - Gold in colour...

First. Zena Wilson, Second. Ava Wilson, Third Lindsay Day, Fourth. John Taylor, Fifth. Craig McGregor

Alphabet Cup - R K N...

First. John Taylor, Second: Craig McGregor, Third Zena Wilson, Fourth. Ava Wilson, Fifth. Lindsay Day

Novice Section - any rock you wish to enter...
First Ava Wilson

Bring and Brag - be prepared to talk about it...
First. Tyler McBeth, Second. John Taylor, Third. Don McLachlan,
Fourth. Don Stanley, Fifth. Craig McGregor, Sixth. Roger Knowles

Monthly Competitions for April (Please refer to the Competition guide in the February newsletter)

Lapidary:Own Polished lapidary work containing the colour yellow
Fossil.....Fossil fern
Mineral:.....Mineral black in colour
Alphabet Cup:UPA
Novice SectionAny rock you wish to enter
Bring and Brag

Wanted: Written articles by our club members for this newsletter:
Please email to c.mcgregor1@outlook.com
Please write about Club field trips, areas of interest and/or expertise etc.

Field Trip for April: 13, 14 April. This will be announced at the club meeting.

Extended field trips: The committee is still looking for a volunteer to organise a several days away field trip(usually held over a long weekend). David Macdonald and John Taylor have offered their expertise to help anyone willing to organise such a trip with ideas of places that could be incorporated in such a trip.

New Member: Please make welcome Pete Nolan.

Our Club Annual Show: This year it is on the 28 and 29 September in our clubrooms. Further information will be in future newsletters, but in the meantime consider how you could help with the show. Now is also the time to start putting aside all that unwanted stone and gifting it for the fossilising trailer.

Zealandia: Geologists say discovery shows New Zealand could be billions of years older than first thought.

Kiwi geologists have discovered New Zealand could be billions of years older than previously thought.

New research by Dr Chris Adams, of Dunedin, and Dr Ross Ramsay, of Kerikeri, pours cold water on the notion of New Zealand as a geologically young country by suggesting it has an ancient, rocky core more than 3 billion years old.

Adams was part of a team several years ago which discovered New Zealand was not in fact a chain of islands, but part of a mostly submerged continent they dubbed Zealandia.

Until now Zealandia was believed to be relatively young - at most a billion years old - but the geologists found grains of the mineral zircon in sandstone near Tākaka they dated to more than three times that age.

Adams said the findings showed Zealandia had a core of "incredibly old" rocks, just like the Earth's other, better-known continents.

Previously, New Zealand's oldest known rocks had been found in the Cobb Valley, northwest of Nelson.

Dating back about 510 million years, the mix of volcanic rocks, sandstones, limestones and mudstones were known for their fossils of long-extinct marine creatures called trilobites.

The pair's study homed in on Wangapeka sandstone in the same area, specifically the tiny grains of zircon contained within it.

Zircon is a rare and extremely durable mineral which contains trace amounts of radioactive uranium, which decays into lead over long periods of time.

Because that decay rate is precisely known, zircon can be dated using lasers and an analytical machine called a mass spectrometer.

The geologists found an "astonishingly high proportion", more than 20 percent, of zircon grains were more than 2 billion years old.

Some even dated as far back as 3.65 billion years.

The pair considered whether the grains could have come from Australia - which is known to have particularly ancient rocks - but given how pristine and unabraded the grains were, it was unlikely they could have been travelled thousands of kilometres from rock sources in western or central Australia.

That, plus evidence from rocks of the same age in Australia, led the pair to conclude the continent of Zealandia must have an ancient "basement" consisting of rocks of 500-650 million and 1-1.1 billion years old.

Those rocks were then uplifted in the Paleozoic era and eroded, providing the zircon grains found in the sandstone.

They also concluded there must be an even more ancient, and very local, continental block in northwest Nelson with rocks dating back more than 3 billion years.

About 95 percent of Zealandia was now underwater, with only a few high points - notably New Zealand and New Caledonia - protruding above the ocean.

One of the arguments previously raised against Zealandia as the Earth's eighth continent was that every continent - except, it seemed, Zealandia - had a core of extremely old rocks.

Zircon found in western Australia, for example, had been dated to more than 4 billion years ago.

"So this places Zealandia very much in the mainstream of all continents. Australia, Africa, America, Antarctica, they all have very old cores going back 3000, 4000 million years," Adams said.

"This data suggests Zealandia is joining the continental club by having a characteristic older core. Even though it's only known to have been exposed in a small area, it's still a crucial piece of information."

Adams said the finding "dramatically extended" New Zealand geology.

"We've gone from the oldest known fossil rocks, 510 million years old, to extremely ancient rocks, which are at least 2500 million years old, and go back even to 3.5 billion years. So Zealandia is definitely older than you think."

The study, titled 'Archean and Paleoproterozoic zircons in Paleozoic sandstones in southern New Zealand: evidence for remnant Nuna super-continent and Ur continent rocks within Zealandia', is published in the Australian Journal of Earth Sciences.

THE 2024 NATIONAL ROCK & MINERAL SHOW

Discover the exciting and colourful world of Gems, Crystals, Minerals, Rocks and Fossils



- Bring your Rocks and Fossils for expert identification
- Dramatic displays
- Fun and interest for all the family
- Sales tables, Jewellery, Rock art, Exotic Specimens

Expressions Whirinaki Arts and Entertainment Centre

836 Fergusson Drive

Upper Hutt City

Friday 4 Oct. – Sunday 6 Oct. 2024

9am – 5pm Friday and Saturday 9am

– 4pm Sunday



Proudly hosted by the Mineral Club of Hutt Valley & Wellington Inc

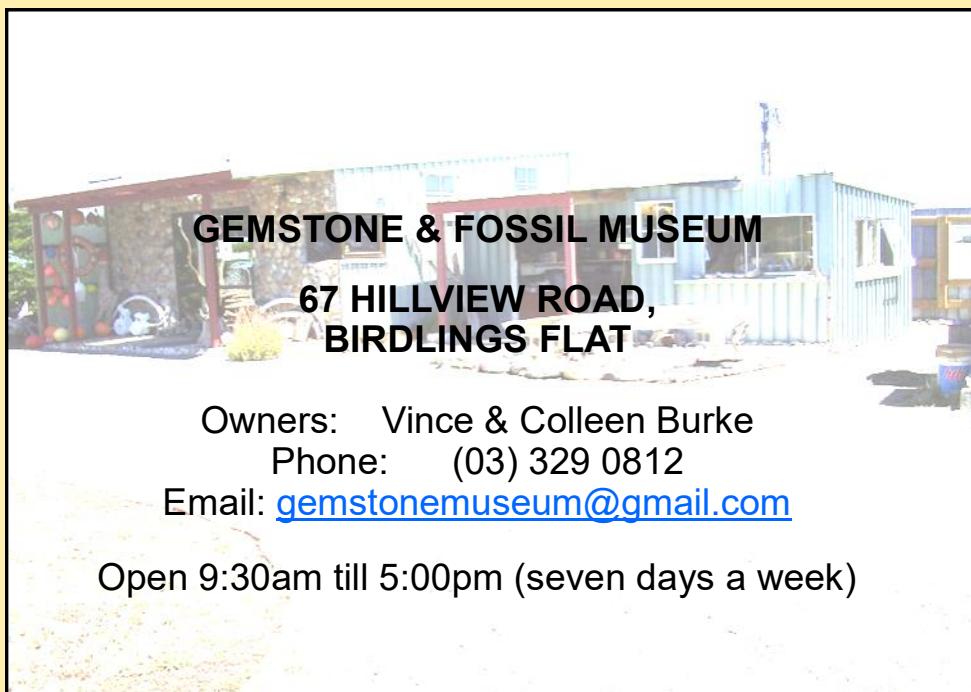
HETTIE'S ROCK & CRYSTAL SHOP

Birdwood Ave, Beckenham, Christchurch.

Also: Akaroa and Queenstown

Also: Akaroa and Queenstown





Sender CMLC, 1 Arlington Street, Burnside, Christchurch 8053.

COMING EVENTS:

North Otago Gem and Craft Show: 6, 7 July. Scottish Hall, Oamaru.
Canterbury Mineral and Lapidary Club: Gem Show 2024: 28, 29 September.
National Show 2024: Mineral Club of Hutt Valley Wellington

Australia

Gemboree 2024: South Australia: Willunga.