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#### Coming up for the remainder of the year:

- 1. Architecture / Local Business
- 2. Literature
- 3. Artificial Intelligence

#### Registration Form - Series 1 2024

Payment methods in order of preference

- 1. Direct Credit to
  - Acc: 03 1746 0080910 000
- 2. EFTPOS Debit card payment available on the day
- Cash in an envelope, please, with your name or include this registration form. Amount enclosed \$30 per person

Cash enclosed Name: \$

### Contact

We prefer to contact you by email. If you have an email address, and we are not aware of it, how about letting us know.

Spare paper copies of the brochure are always available if you are unable to print one for yourself.

### Series Organiser

Jean McIlwrick



### Invercargill

### February / March 2024

### Series 1

## Geology



Venue:	Windsor Community Church 19 Windsor St
Time:	10.00am
Cost:	\$30 per person

### Series 1 - Geology

Session 1 : Friday 9 February

Southland's place in the Zealandia continent.

Presenter: Dr Nick Mortimer, GNS Science, Dunedin



# Earth's recently-discovered

eighth continent, Zealandia, lies mainly underwater and occupies a five million square kilometre area in the southwest Pacific Ocean. This illustrated talk is the back story about how rocks of the Southland region have played a key role in the mapping and understanding of the continent. Nick's talk provides a useful, big-picture context for the other talks in this geology series. During morning tea, Nick has indicated he is happy to identify and chat about any rocks people might like to bring along. Nick has worked as a geologist at the DSIR and GNS for 38 years.

### Session 2 : Friday 16 February

# South Island tectonics, geology and formation of the Southern Alps and Fiordland

Presenter: Dr Simon Cox , GNS Science Dunedin



Dr Simon Cox is a Principal Scientist at GNS Science in Dunedin. His early career was dominated by interest in tectonics, the Southern Alps, Antarctica and mineral exploration. During the past decade he has focussed on geological hazards - characterizing landslides, the Alpine Fault, earthquake hydrology and shallow groundwater systems. As a regular recipient of national geoscience awards, he is well respected in the earth science community. Widely recognised as a public speaker and communicator of science. Simon also maintains close ties with local iwi/Māori, supervises research students, collaborates internationally and is cited globally, and has a wide-network to science end-users.

### Session 3 : Friday 23 February

Geological evolution of Southland's rivers, native fish, and gold deposits

Presenter: Dave Craw

Dave is Emeritus Professor at the Geology Dept of the University of Otago

Rivers are an important part of Southland's modern landscape, but the river drainage patterns we see today were different in the past. There has been a complex history of drainage evolution over the past 20 million years, and especially over the past 5 million years. Ancient



rivers brought gold to Southland from Central Otago, and then they ceased to flow south, and eventually became the Clutha River in Otago. Reconfigurations of the major rivers have driven evolution of new species of native fish, some of which are found only in Southland. River redirections take place much more slowly than human time scales, but we can still see evidence for the changes within our landscape.

### Session 4 : Friday March 1

### Active faulting and seismic hazard in Southland

Presenter: Dr Jack Williams, University of Otago/GNS Science

Jack is a postdoctoral fellow at the Geology Dept of the University of Otago. He has been part of teams exploring the earthquake in



Kaikoura and studies of the alpine fault, along with investigations of earthquakes in southern Malawi.

Jack will introduce some research that has been conducted on active faults and earthquakes in the lower South Island over the last few years.

For your interest : Recent earthquakes near Invercargill - click <u>here</u>