



# Dr Ursula Cochran

## *Science Writer*

### SCIENCE WRITING SERVICES

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- ✍ Stories & articles
- ✍ Media releases
- ✍ Policy briefings
- ✍ Annual report articles
- ✍ Profiles
- ✍ Scripts & captions
- ✍ Website content
- ✍ Social media posts
- ✍ Research proposals
- ✍ Progress reports
- ✍ Technical reports
- ✍ Scientific papers

*I believe that science must be used to make the world a safer, healthier, and happier place for everyone.*

*Effective communication of science is crucial for extracting the benefits of science for use in society.*

*I'm proud to live in Aotearoa New Zealand where science has a place at the table in decision-making circles. And where there is increasing acknowledgment of the value of mātauranga Māori.*

*After a rewarding career as a research scientist, I'm now driven to contribute to the communication of science through high-quality, useful written material.*



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### ACADEMIC QUALIFICATIONS

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- 2002 PhD (Geology), Victoria University of Wellington
- 1996 BA (English), The University of Auckland
- 1995 BSc with First Class Honours (Geology), Victoria University of Wellington

### PROFESSIONAL POSITIONS

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- 2020 - Ongoing Freelance Science Writer, Wellington
- 2002 - 2020 Research Scientist, GNS Science, Lower Hutt
- 1995 - 2000 Laboratory & Field Demonstrator, Victoria University of Wellington

### SKILLS AND EXPERIENCE

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#### Writing

Writing has always been a strong interest of mine, in addition to science. I completed an English degree in 1996 for which I won a senior prize from the University of Auckland. More recently, I took Dave Armstrong's "Writing for Science" short course at Victoria University (2017), and I completed the "Grammar for Writers" course at the NZ Writers' College in 2020 and passed with a mark of 94%.

#### Researching

I am a thorough and disciplined researcher with a PhD and successful track record in the field of earth science. As an earthquake geologist for 18 years at GNS Science, I co-led a Marsden-funded project that created one of the longest earthquake records in the world for the Alpine Fault and was published in the journal *Science*. I applied international techniques to New Zealand coastlines and found evidence for past large earthquakes on the Hikurangi Subduction Zone. I participated in science responses to the 2003 Fiordland earthquake, 2011 Christchurch earthquake and the 2016 Kaikōura earthquake.

#### Teamwork

I am a valued team member because of my positive attitude, high standards, empathy, and good communication. I have worked in diverse teams with scientists, stakeholders, end-users, and mana whenua. I am also self-motivated and relish working independently.

## SKILLS AND EXPERIENCE CONTINUED...

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### Communicating

As a scientist, I promoted the importance of communicating science by integrating it into research plans at the start of a project. As a writer, I am motivated to help scientists share their discoveries. I was a contributing scientist in the early days of [AF8](#) and [East Coast LAB](#) - initiatives that have improved the readiness of their communities for natural hazards. For a while I led the mātauranga, education and outreach part of the Hikurangi Subduction Margin MBIE Endeavour program. This program won a Team Award at the Science NZ awards in 2021. Personal recognition includes winning the GNS Science "Excellence in Science Communication" Award in 2015 and the Zonta Science Award in 2004.

I have presented numerous talks, helped organise conferences, led fieldtrips, featured in videos and news media, and contributed to educational activities. Here are a few of the most memorable ones:

- Scientist presenter for documentary "Beneath New Zealand" by Making Movies 2016.
- Scientist presenter for LEARNZ fieldtrip "Life at the Boundary" 2017.
- Fieldtrip leader on "Action Planet", a Curious Minds project for those with learning disabilities, 2016.
- Participant in "Te Kura Whenua", an initiative to share geoscience knowledge between Māori communities and GNS Scientists, Porangahau, 2016.

## SELECTED PUBLICATIONS

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### Articles published on *The Spinoff*:

February 2023: [For safe places to live, look to the land](#)

December 2021: [The body has its own traffic light system](#)

April 2021: [Earthquake forecast just in: the Alpine Fault is due for a major quake - and soon](#)

March 2021: [Friday delivered a big test for New Zealand's tsunami response](#)

February 2021: [A decade on, New Zealand is yet to properly reckon with our tolerance for risk](#)

March 2020: [Embrace the new normal: Why our earthquake recoveries give reason for hope](#)

November 2017: [Why it's so important to mark the anniversaries of earthquakes](#)

### Articles for organisations:

Te Hiranga Rū QuakeCoRE, stories for website and reports e.g., [2022 Annual Report](#); [2020 Annual Report](#).

"Reflections on a Seismic Decade in New Zealand: New Knowledge for a Resilient Future" Berryman, K., Cowan, H. and Cochran, U., September 2020. Article for Toka Tu Ake EQC.

"Disaster-Free New Zealand: Can We Do It?" Cochran, U., Berryman, K., Cowan, H., July 2021, volume 44, *Public Sector: Journal of the Institute of Public Administration New Zealand*.

### Scientific papers:

I have contributed to 47 papers in peer-reviewed scientific journals, and I have an h-index of 24. For a complete list see <https://orcid.org/0000-0001-8002-4958>. Here are a few of my favourites:

**Cochran, U.A.**; Clark, K.J.; Howarth, J.D.; Biasi, G.P.; Langridge, R.M.; Villamor, P.; Berryman, K.R. Vandergoes, M.J. 2017. A plate boundary earthquake record from a wetland adjacent to the Alpine fault in New Zealand refines hazard estimates. *Earth and Planetary Science Letters* 464: 175-188; doi: 10.1016/j.epsl.2017.02.026

Berryman, K.R.; **Cochran, U.A.**; Clark, K.J.; Biasi, G.P.; Langridge, R.M.; Villamor, P. 2012. Major earthquakes occur regularly on an isolated plate boundary fault. *Science*, 336: 1690-1693; doi: 10.1126/science.1218959

**Cochran, U.A.**; Hannah, M.; Harper, M.; Van Dissen, R.J.; Berryman, K.R.; Begg, J.G. 2007. Detection of large, Holocene earthquakes using diatom analysis of coastal sedimentary sequences, Wellington, New Zealand. *Quaternary Science Reviews*, 26(7/8): 1129-1147; doi: 10.1016/j.quascirev.2007.01.008

**Cochran, U.A.**; Berryman, K.R.; Zachariassen, J.; Mildenhall, D.C.; Hayward, B.W.; Southall, K.; Hollis, C.J.; Barker, P.; Wallace, L.M.; Alloway, B.V.; Wilson, K.J. 2006. Paleocological insights into subduction zone earthquake occurrence, eastern North Island, New Zealand. *Geological Society of America Bulletin*, 118(9/10): 1051-1074 DOI: 10.1130/B25761.1