

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

Effective communication of science is crucial for enabling its use in society.

I enjoy helping scientists, communities, and research groups communicate their science through highquality written material.



Ursula Cochran Science Writing

Down to earth words for a better world

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Dr Ursula Cochran

Science Writer

SCIENCE WRITING SERVICES

- 🖍 Stories & articles
- 🖍 Media releases
- Policy briefings
- Annual report articles
- 🖉 Profiles
- Scripts & captions

ACADEMIC QUALIFICATONS

- 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

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

SKILLS AND EXPERIENCE

Writing

I am a keen writer of science and ideas. 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 (2020) with a final mark of 94%. I have years of experience producing written science outputs.

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 self-motivated and relish working independently as well.

- ✓ Website content
- Social media posts
- Research proposals
- Progress reports
- Technical reports
- Scientific papers

Communicating

Throughout my career I have promoted communication as an integral part of research. I was a contributing scientist in the early days of <u>AF8</u> and <u>East Coast LAB</u> – 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 Malahoff Medal for Excellence in Science Communication 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 activities:

- 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.
- Scientist presenter for the AF8 Roadshow, 2025.

SELECTED PUBLICATIONS

Opinion pieces in the media:

January 2025: <u>An anniversary weekend to remember</u>, *Newsroom* February 2023: <u>For safe places to live, look to the land</u>, *The Spinoff* December 2021: <u>The body has its own traffic light system</u>, *The Spinoff* April 2021: <u>Earthquake forecast just in: the Alpine Fault is due for a major quake – and soon</u>, *The Spinoff* March 2021: <u>Friday delivered a big test for New Zealand's tsunami response</u>, *The Spinoff* February 2021: <u>A decade on, NZ is yet to properly reckon with our tolerance for risk</u>, *The Spinoff* March 2020: <u>Embrace the new normal: Why our earthquake recoveries give reason for hope</u>, *The Spinoff* November 2017: <u>Why it's so important to mark the anniversaries of earthquakes</u>, *The Spinoff*

Articles for organisations:

Kia eke kairangi ki te taikaumātuatanga Ageing Well National Science Challenge: science stories for their book <u>"Ka Mua Ka Muri - A Decade of Ageing Well in New Zealand and Beyond"</u> April 2024.

Te Hiranga Rū QuakeCoRE: <u>research project stories</u> for their website and social media; science summaries in annual reports e.g., <u>2024 Annual Report</u>; <u>2023 Annual Report</u>; <u>2022 Annual Report</u>; <u>2020 Annual Report</u>.

Forest and Bird Magazine: "Finding the World's Oldest Flax Snail Fossils" Cochran, U., p 48, No 391, 2024.

IPANZ: Article entitled, "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*.

Toka Tu Ake Natural Hazards Commission: Article entitled, <u>"Reflections on a Seismic Decade in New</u> <u>Zealand: New Knowledge for a Resilient Future"</u> Berryman, K., Cowan, H. and Cochran, U., September 2020.

Scientific papers:

I have contributed to 47 papers in peer-reviewed scientific journals, and I have an h-index of 25. For a complete list see https://orcid.org/0000-0001-8002-4958. Here are a few of my favourites:

Orchiston, C.; **Cochran, U.A.**; Vause, A. 2024. A review of tsunami hazard for southern Aotearoa New Zealand with implications for future research. *New Zealand Journal of Geology and Geophysics*, 1-23.

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.

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.

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.