



DETERMINING VOLCANIC RISK IN AUCKLAND

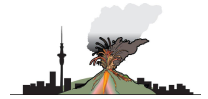
Auckland is a vital link in New Zealand's economy and the city and surrounding region are internationally desirable places to work. However, Auckland sits on a volcanic field. The DEVORA research programme is aimed at a much-improved assessment of volcanic hazard and risk in the Auckland metropolitan area.

DEVORA Events and Outreach

Discover the latest events and research forums organised by DEVORA and learn more about New Zealand's hot spots by opening up your classroom or community to our outreach experts.

(For use with Events)

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2019

12th Annual DEVORA Research Forum

Our annual DEVORA Research Forum was held on Thursday the 21st November at The University of Auckland. This year we hosted about 60 people and got to listen to some great presentations. These annual meetings allow everyone to stay up to date on current research, and also allow stakeholders to communicate directly to the scientific community. All photos from the day have been posted on our [Facebook](#) page, and presentation recordings are available in Presentations.



Nicole Allen (PhD) presenting her research at the 12th Annual DEVORA Research Forum

Incredible Science Day

Once again, outreach volunteers from DEVORA, [QuakeCoRE](#), [AUGA](#), [RŪ](#), and UoA geography hosted a several booths at the University of Auckland's Incredible Science day on July 2nd. We enjoyed interacting with over 500 students, teachers, and parents from around the region!

MOTAT STEM Science Fair

DEVORA, AUGA (Auckland University Geoscience Association) and QuakeCoRE (NZ Centre for Earthquake Resilience) outreach group joined forces to bring geologic fun to the public at this year's [MOTAT's STEM Science Fair](#). On Sunday, 7 April, we brought over 2,000



members of the public lava flows, explosive Coke-Mentos eruptions, a real seismometer to detect the person-quakes you make, and more. We were happy to answer any of your questions about geological hazards and risks. Thank you to all who joined us!

2018

11th Annual DEVORA Research Forum

The 11th Annual DEVORA Research Forum, co-hosted with Auckland Emergency Management, took place on Thursday-Friday, 25-26 October, at Auckland Council venues. This year, we had about 80 attendees both days who enjoyed 30 research presentations altogether. Meetings like these play an important role in keeping everyone up to date on current research and recent findings, as well as allowing stakeholders to communicate their needs to scientists. Available presentations can be found in our Presentations section. Photos from the day are posted on our [DEVORA Facebook page](#).

Incredible Science Day

The DEVORA outreach group hosted a small booth at the University of Auckland Incredible Science day on July 2nd. We enjoyed interacting with students from around the region!

MOTAT Super STEM Fair

On Sunday, April 8th, The DEVORA, AUGA (Auckland University Geoscience Association) and QuakeCore (NZ Centre for Earthquake Resilience) outreach group had a blast teaching and engaging with >1600 visitors at the Super STEM Fair at MOTAT. This is an annual event at the beginning of April, and DEVORA will be back next year! Click [here](#) for more information about the event.

2017

What Causes Eruptions in Intraplate Volcanic Fields? A DEVORA Workshop

On 28 Nov, as part of the upcoming GSNZ conference, DEVORA hosted a workshop exploring possible links between eruptions in Auckland and tectonic activity in New Zealand. There were >35 attendees, including experts in volcanology, geophysics, geochemistry, seismicity and NZ tectonics. We discussed what we think may be causing/triggering volcanism within the Auckland Volcanic Field and brainstormed ideas of how we could prove or disprove various theories. The event was a great success and we thank everyone who participated!

10th Annual DEVORA Research Forum



The 10th Annual DEVORA Research Forum took place on Tuesday, 7 November, at the University of Auckland. This year, we had about 70 attendees who enjoyed 19 research presentations. Meetings like these play an important role in keeping everyone up to date on current research and recent findings, as well as allowing stakeholders to communicate their needs to scientists. Available presentations can be found in Presentations. Photos from the day are posted on our [DEVORA Facebook page](#).

Rock, Roll, and Erupt: The Earthquake and Volcano Laboratory

Once again the DEVORA team hosted an event as part of the Auckland Heritage Festival. On Sunday, 1 October from 10 am – 2 pm, real volcano and earthquake scientists ran demonstrations and experiments for the public. The event was sponsored by The University of Auckland, Auckland Council and The Earthquake Commission. Participating outreach groups include those from QuakeCoRE, the Auckland University Geoscience Association (AUGA), and the DEVORA research programme. Click [here](#) for more information about the event.



A DEVORA volunteer shows how increasing gas pressure leads to explosive eruptions

Incredible Science Day at the University of Auckland

On 5 July, The University of Auckland hosted an ‘Incredible Science’ Day, in which Faculty of Science students and staff shared their exciting science with students aged 10 – 12 from primary and intermediate schools across Auckland. The DEVORA Outreach Group and their partners, AUGA and QuakeCoRE, once again teamed up to provide hands-on demonstrations geared toward teaching the kids concepts about volcanoes, earthquakes, and their associated hazards. Over 400 students, teachers, and parents attended. Teachers reported that some students have had very little exposure to science, and that now they are talking about how cool it is and about wanting to become scientists!

Autumn School Holidays at Stardome

The autumn school holiday programme at Stardome, *Volcanoes in Space*, ran from April 18 to April 24. The programme was built around their new planetarium show *Supervolcanoes* and featured interactive activities designed to teach the young and old alike about the



magic of volcanoes. DEVORA volcanologists were present for the first few days of the programme and answered questions about the life of a volcano scientist. For more information on the Stardome Holiday programme click [here](#).

MOTAT's Street Science Fair

On Sunday, 2 April, DEVORA volcanologists, UoA geologists, and QuakeCoRE scientists were on hand to show visitors geological wonders and answer questions about natural hazards at MOTAT's annual Street Science Fair. The event was a success, with over 2,000 visitors. Many thanks to our wonderful volunteers for doing a fantastic job!

Hazard Hub @ University of Auckland inaugural Volcanic Hazards Short Course: The Auckland Volcanic Field

DEVORA and affiliated AVF researchers (Drs Jan Lindsay, Graham Leonard, Brad Scott, Kate Lewis Kenedi, and Shane Cronin), hosted by Auckland Council, ran the inaugural Auckland Volcanic Field Volcanic Hazards Short Course offered through the [Hazard Hub @ University of Auckland](#). The course is designed for organisational stakeholders who may have limited or basic knowledge of volcanic hazards and the Auckland Volcanic Field.

On 16 February 2017, 16 participants from Auckland Civil Defence and Emergency Management, New Zealand Police, and the NZ Transport Agency participated in the all-day Foundation Level 1 Short Course in the beautiful Town Hall Council Chambers. Morning presentations and information packets provided key information as a basis for understanding the possible hazards associated with the Auckland Volcanic Field, e.g. ash fall and lava flows. Participants then worked together in interactive sessions to get a feel for what information scientists need to help forecast eruptions, what might happen before and during an eruption, and the difficulties associated with predicting volcanic activity.



Jan Lindsay kicked off the short course with a great introduction to the Auckland Volcanic Field.



2016

DEVORA AVF Eruption Scenario Workshop

On November 11, 2016, DEVORA hosted a workshop to develop the AVF eruption scenarios. Twenty-three volcanologists and Auckland CDEM stakeholders came together and evaluated 8 proposed AVF eruption scenarios that cover a range of precursory activity, eruption styles, locations, volcanic phenomena, and durations. Once finalised, these scenarios will be used to determine the potential consequences of a future AVF eruption. This work is important for planning and mitigation purposes.

9th Annual DEVORA Research Forum

The 2016 Annual Research Forum was held on Thursday, 10 November, at the University of Auckland. This year, we had over 60 participants who enjoyed 21 research presentations. The Forum gives scientists and stakeholders (emergency planners, representatives from lifelines–power, telecommunications, water treatment, etc.) a chance to build and strengthen relationships that will be relied upon in a volcanic crisis. Meetings like these play an important role in keeping everyone up to date on current research and recent findings, as well as allowing stakeholders to communicate their needs to scientists. Available presentations are posted in our Presentations section. Photos from the day can be found on the DEVORA Facebook page.



Outreach Event – Upper Harbour Primary School, Greenhithe, Auckland

On October 29, 2016, the University of Auckland (UoA) DETERMINING VOLCANIC RISK IN AUCKLAND (DEVORA) project and Auckland University Geoscience Association (AUGA) outreach groups took foaming lava flows, popping volcanic eruptions, and a shaking seismometer to Upper Harbour Primary School. The school had a science theme for their school fair, “Discovery Day,” which 600-700 people attended.



Nine UoA staff and students involved school children and parents in scientific discoveries.

We had a great time at Upper Harbour Primary School and hope other schools will be inspired to have science-themed school fairs!



Showing off volcanic rocks at the Upper Harbour Primary School. Photo by Elaine Smid.

Shaking and Popping in New Zealand: Earthquakes and Volcanoes

As part of the Auckland Heritage Festival, DEVORA presented an interactive event exploring how volcanoes work. This year, we also teamed up with [QuakeCoRE](#), Auckland Council's Civil Defence and Emergency Management, and the Auckland University Geological Association to help kids learn more about volcanic eruptions and earthquakes and what they can do to stay safe during these natural hazards. The event was a big success, with over 250 members of the public attending. More information is available at [this link](#).

2015

8th Annual DEVORA Research Forum

The DEVORA Research Forum was held at the University of Auckland on 12 November. The Forum gives scientists and stakeholders (emergency planners, representatives from lifelines—power, telecommunications, water treatment, etc.) a chance to build and strengthen relationships that will be relied upon in a volcanic crisis. Meetings like these play an important role in keeping everyone up to date on current research and recent findings, as well as allowing stakeholders to communicate their needs to scientists.



The day was a success, with 22 presentations by DEVORA researchers. A huge thank you to all of our presenters. Photos from the day can be found on the [DEVORA Facebook page](#). http://www.devora.org.nz/presentations_and_posters/.

The Volcanoes in Your Backyard

DEVORA held a special event during the [2015 Auckland Heritage Festival](#): The Volcanoes in your Backyard! This event was a part of the Auckland War Memorial Museum's '[Taku Tāmaki](#)' exhibit and took place on Sunday, 4 October from 10 am – 2 pm. We had a great turnout, so thank you to our Outreach Group volunteers, and all the Volcanologists-in-Training that visited us! Special thanks to the Auckland War Memorial Museum for hosting us.



Feeling the heat from our 'lava flow' at DEVORA's The Volcanoes in Your Backyard event at the Auckland War Memorial Museum, Auckland Heritage Festival, 2015. Photo by Elaine Smid.

UoA Faculty of Science's Incredible Science Roadshow

The DEVORA Outreach Group took part in this year's [Incredible Science Roadshow](#), organised by [the Faculty of Science at the University of Auckland](#) and hosted at Devonport Primary School on Wednesday, 10 June 2015. DEVORA Outreach Group leaders thank volunteers Giovanni Coco, Dev Patel, Christine Liang, and Anna Smith for doing an incredible job at the Volcanoes and Earthquakes booth!

You can also find [Incredible Science online](#).



Kate Kenedi creates a pink 'lava flow' at the 2015 Incredible Science Roadshow. Photo by Elaine Smid.

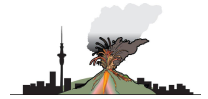
2015 MOTAT Science Street Fair

On Sunday, 29 March, the DEVORA Outreach Group demonstrated their volcano knowledge at the [Museum of Transport and Technology \(MOTAT\)'s 2015 Science Street Fair](#), a much anticipated annual event aimed at primary and intermediate aged children.

Many thanks to volunteers Dev Patel, David Rhode, Minzi Liu, Kyle Meffan, Christine Liang, and Anna Smith for doing a fantastic job, and to the UoA Geophysics Society for inviting us to participate in the event with them. We look forward to participating next year!



Coke-Mentos volcano experiment. Photo taken at MOTAT's Science Street Fair 2015 by Nicole Jones.



2014

7th Annual DEVORA Research Forum

On the 7th November 2014, the 7th annual research forum focused on DETERMINING VOLCANIC RISK IN AUCKLAND (DEVORA) was held in the Decima Glenn room in the Owen G Glenn Building at UoA.

Auckland Heritage Festival – Auckland Erupts!

The DEVORA Outreach Group hosted an Auckland Heritage Festival event, 'Auckland Erupts!' on the lawn behind the University Clock Tower on Saturday, 11 October. The highlights of the event were the (sometimes messy) Diet Coke-Mentos eruptions every half-hour. DEVORA Outreach Group leaders extend their appreciation to volunteers Mel Runge, Kim Paynter, Maneesha Sakamuri, Evert Quintero, Ruben Jaen, Bonnie Hartfield, Jenna Sharpe, Arpana Taunk, and Burns Vaughan for doing a fantastic job. It was a great day for all involved!



DEVORA Outreach Group demonstration fun

European Volcanoes' Night (September 2014)

On Friday, 26 September 2014, Elaine Smid, Maneesha Sakamuri, Carolyn Bowden, and Jan Lindsay participated remotely in 'Volcano Night', part of the European Union's 'Researcher's Night', an annual event held in about 300 European cities aimed at promoting public awareness of exciting science. A poster describing DEVORA was displayed at events in four different areas of the Canary Islands.



Poster displayed at 'Volcanoes Night' in 2014.

Resilient Auckland Expo (March 2014)

The Resilient Auckland Expo held on 21-22 March at the Aotea Centre gave members of the public an opportunity to learn how to better prepare for natural hazard events, such as earthquakes or volcanic eruptions. The Expo was held in conjunction with the annual New Zealand Society for Earthquake Engineering (NZSEE) conference. Dr Jan Lindsay (DEVORA co-leader) gave a well-received public talk at the NZSEE conference: 'Volcanic and seismic hazard in Auckland: Just how shaky is our isthmus?'

<https://confer.co.nz/resilientauckland/>

2013

6th Annual DEVORA Research Forum

DEVORA's sixth annual research forum was held jointly with the Auckland Council Civil Defence and Emergency Management Group (CDEMG) on 27 September 2013 as a part of '[Get Ready' Week](#). The Honourable Nikki Kaye, Minister for Civil Defence, gave the [opening address](#). Over 200 representatives from stakeholder organisations across New Zealand attended this high profile event to learn how DEVORA and other stakeholders are



collectively working together to prepare for and reduce risk from the next Auckland eruption.