2026
Donor Impact Report

VICTORIA UNIVERSITY OF WELLINGTON
TE HERENGA WAKA

Te Hauhunga Girls* on Ice Aotearoa New Zealand

Empowering young women to explore science, art, and the outdoors

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MAI I TE IHO KI TE PAE

THE STORY OF YOUR IMPACT BEGINS HERE

Thanks to your generous donations, the third Girls* on Ice Aotearoa expedition took place from 12-22 January 2026 and was another great success.

At the beginning of 2025 we received some alarming news. The U.S. government was cutting funding to diversity, equity, and inclusion programming. As a result, our Girls* on Ice Aotearoa programme could not seek further support from the U.S. Embassy.

This meant the whole future of our tuition-free education expeditions to Mount Ruapehu was in jeopardy. However you, our generous community of donors, saved the programme.

Thanks to your incredible generosity, the expedition in January 2026 went ahead as planned. We are extremely grateful to you, our sponsors Macpac, Mountain Adventure, and the Antarctic Science Platform, as well as our key individual supporter Beverley McCombs, who all pitched in to make the programme a reality.

We are delighted to bring you this impact report on the life-changing experiences you made possible for these participants.

It is extremely rewarding to run this programme. It gives us a platform to increase the diversity of science, environmental work, and the interplay with the arts, to break down barriers and inspire future generations.

It is more important than ever to keep this going. At the Antarctic Research Centre we are determined to continue empowering young women in science and fostering diversity and inclusion."

-Professor Rob McKay,
Director, Te Puna Pātiotio—Antarctic Research Centre

Girls* on Ice Aotearoa (GoIA) is part of Inspiring Girls* Expeditions—an international tuition-free programme running annual expeditions aimed at empowering young women through science, art, and outdoor exploration. It began with the aim of creating space for girls and women to grow and thrive in historically male-dominated fields such as earth sciences. Today, as the asterisk in the name denotes, Inspiring Girls* Expeditions welcome cisgender girls and transgender, agender, nonbinary, intersex, and genderqueer youth. The programme now operates in the United States, Canada, Switzerland, Austria, and Central Asia. Girls* on Ice has also expanded to Girls* on Rock, Girls* on Water, and Girls* in Icy Fjords.

Co-founder Dr Lauren Vargo was part of the collaboration and exchange programme between Te Herenga Waka and the International Arctic Research Center at University of Alaska Fairbanks. In 2022 Lauren travelled to Alaska to participate as an instructor in their Girls* on Ice programme and then went on to plan the first expedition in Aotearoa New Zealand.

OUR TEAM

Te Herenga Waka—Victoria University of Wellington's Te Puna Pātiotio—Antarctic Research Centre (ARC) hosted the 2026 expedition. Dr Lauren Vargo led a team comprising science instructors Julia Martin, Ashley Davis, Jenni Hopkins, art instructor Maria O'Toole, and outdoor specialist Mel Harris. Originally from the United States, Australia, Germany, and New Zealand, all the instructors now call Aotearoa home. The programme also relies on a team of volunteers who helped with recruiting, application review, and expedition preparation and clean up.

Dr Lauren Vargo
Team leader

Glaciologist, Senior Research Fellow, ARC
GoI Aotearoa Co-Founder
IGE Alaska Instructor 2022

Lauren is an American early-career scientist who moved to Aotearoa in January 2016. Her research focuses on understanding how and why snow and ice, particularly glaciers, are changing. Lauren is interested in climate science, Earth science, and programming, and communicating climate science in ways that engage and inform the public.

Dr Ashley Davis
Oceanographer
GoI Aotearoa Organiser and Science Instructor

Ashley is an Oceanographer, Science Communicator and Educator currently employed as a Visiting Scientist at NIWA.

Mel Harris
Outdoor Guide

Originally from Christchurch, Mel is an outdoor guide based at the Hillary Outdoors Tongariro Alpine Centre. Her skills and familiarity with the terrain were vital to the girls' enjoyment and safety on the mountain.

Julia Martin
Snow Scientist PhD Student, ARC
GoI Aotearoa Organiser and Science Instructor

Originally from Germany, Julia is completing her PhD studying how the snow cover may influence the response of the sea ice to climate change.

She has planned field expeditions to the Arctic and Antarctica and participated on an all-women led sea ice expedition to the McMurdo Sound, Antarctica in November 2022.

Maria O'Toole
Visual Artist and writer
GoI Aotearoa Art Instructor

Based in Wellington, Maria holds a Master of Fine Arts as well as a PhD in which she connected her environmental concerns with her drawing practice.

Maria creates lyrically abstract drawings influenced by sensory experiences of space and observations of the rhythms within them. She also runs her own drawing workshop programme, Kinship, which includes workshops on Mt Ruapehu, aligning perfectly with Girls* on Ice.

Jenni Hopkins
Postdoctoral research fellow
School of Geography, Environment and Earth Sciences
Science Instructor

Jenni is a vulcanologist whose research uses geochemical methods to determine a variety of characteristics about volcanoes.

She aims to better understand their eruption processes, mantle mechanics, eruption timings, and extents. She then uses these details to help make predictions about the characteristics of future eruptions.

OUR PROGRAMME

With the help of our volunteers, we assessed 200 applicants from schools across New Zealand. We partnered with Pūhoro, a Māori STEM organisation, throughout the application process and expedition preparation. They promoted the programme to their students and in the end around 20 students from Pūhoro applied and two were selected. Ten girls were selected from all around the country—eight from the North Island and two from the South. Their itinerary is outlined below.

Day 1

Aisha, Anastasia, Angelia, Clara, Frankie, Hazel, Kyanah, Sasha, Shelby and Waitohu met at Te Herenga Waka—Victoria University of Wellington to prepare for the expedition. They met the expedition team and were given personal gear and appropriate outdoor clothing and shoes for the expedition.

Days 2-5

The group travelled by van to Tongariro National Park and began bonding during the trip. On arrival they hiked up Whakapapa ski field to the Hutt Valley Tramping Club lodge, their accommodation for the duration of the expedition. and prepared to be without their cellphones for the week. The club kindly allows us to use their food stores for the week. The girls enjoyed creating their own pizzas for 'Italian night'.

The students explored their surroundings and got familiar with their gear.

Mountain guide Mel familiarised the group with walking safely with boots and a pack, and map reading and navigation in the mountainous terrain.

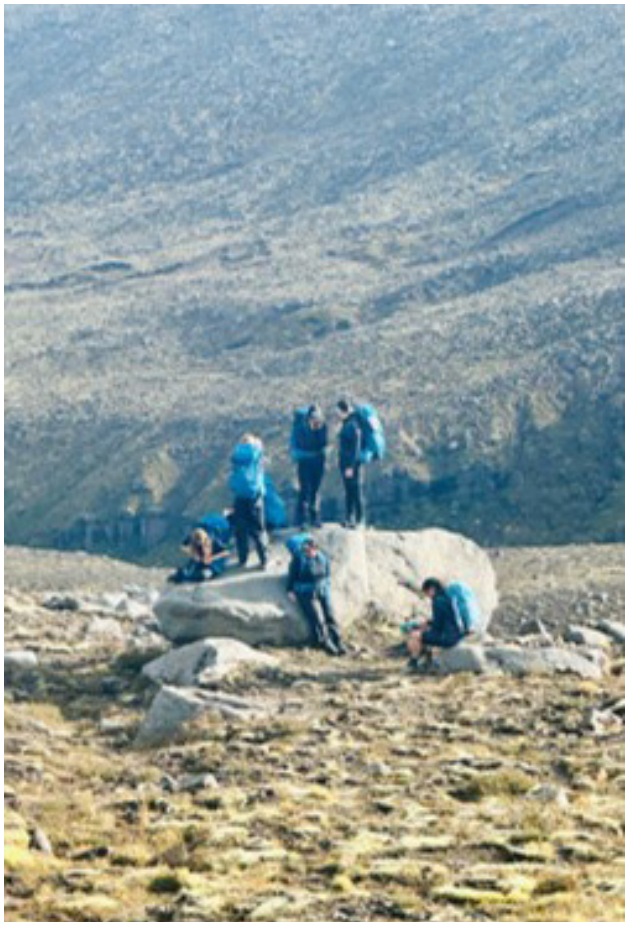
We were not so lucky with the weather this year with cold temperatures of 5-6 degrees and rain. This made the outdoor activities more challenging and the students were grateful for their gear.

The science instructors ran sessions introducing the rocks and plants found on the mountain, cave fossils, snow physics, and the impacts of climate change in New Zealand.

Their walks culminated in 'peak physical day' when the group walked to Wairere stream and Taranaki falls which included steep technical terrain.

Every year it is becoming more difficult to find snow on the mountain, however a small 5×3 metre patch was found—for some of the girls it was the first time they had seen snow.

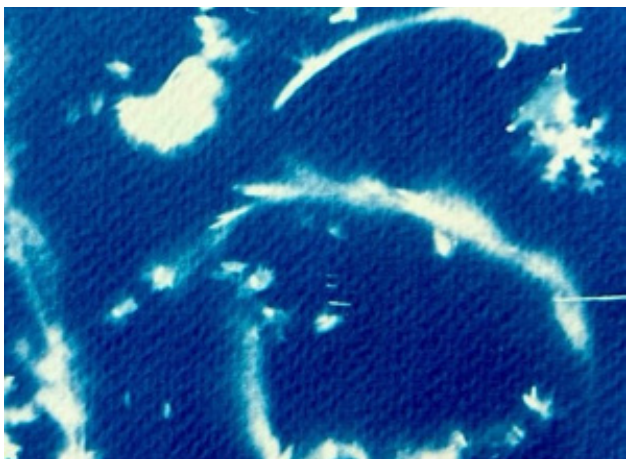
The instructors have different areas of expertise but all involved showing the girls 'how to do science.' They learned how to objectively measure the natural world using simple tools such as transects and how to collect metadata describing the conditions to give context to their experimental data.



As Mel is an experienced caver, the team also did a half day trip to the Okupata cave where they encountered cave wētā and glowworms. Instructor Ashley who is an oceanographer was delighted to see a fossilised paua shell and starfish as the rock had been submerged in the ocean millions of years ago.

> *"Every year we come to the conclusion that there's no difference between art, science, and outdoor exploration. They are all ways of looking at the natural world and the most powerful thing you can do is to combine them."*
>
> **- Julia Martin**

Art instructor Maria O'Toole introduced activities to help the girls observe and respond to the landscape through art. They experienced drawing in the open air and learnt to experiment with tone and texture using water colour and pastel to capture images of rocks and create a 3D effect. They also created cyanotype prints which create an image of objects placed on a dark blue light sensitive surface.



Days 6-8

The students broke into three groups to design their own science experiments and art pieces based on their interests, learning how to describe and measure the natural world. Each team created a hypothesis and collected data using measuring techniques, then examined the results to test the hypothesis.

Team Volcanic Rocks

What do rock types found in different areas tell us about the geology of the area?

The group analysed the frequency and type of rocks found at three locations, expecting to find the size of rocks increased with altitude as the rocks were less weathered. This hypothesis was confirmed. They also expected variation in rock types that may indicate different types of eruption. Although no consistent pattern was found with altitude the range of rock types indicate a composite volcano. The group also made mixed media art works of the rocks they found.

Team Ecology

How did the plants and bugs of Ruapehu adapt based on location?

The team took measurements at three locations using transects to measure the frequency of different species of plants and bugs. This type of research can be helpful after events such as the Tongariro fires. They expected to find more plants and bugs at lower altitudes, however this was not borne out. There were fewer plants at lower altitudes but there was greater diversity and they were more colourful, which they hypothesised was to attract pollinators. Almost all bugs were winged, and their presence may have been impacted by the wind. Plants and bugs had good camoflage and many plants had a leathery surface to deal with the harsh conditions.

Stream Ninjas

How do different altitudes impact the streams of Ruapehu?

This team measured the air and water temperature, Ph level and current velocity of the water in streams at three different altitudes. They hypothesised that water at higher altitudes would be warmer, acidity would vary in different environments, and the current would be stronger higher up the mountain as it is steeper. Velocity was measured using an empty coke bottle on a string, which was fun but the water proved too deep and swift for accurate testing. Acidity did increase and water temperature decrease higher up the mountain, apart from in the shallower rock pool.

The team also made paintings of the water based on the colour of the Ph tubes.

Day 9

The group packed up, hiked down the maunga and returned to Wellington to be housed overnight at the University.

Day 10

The students compiled their research projects results and art into a presentation for their peers, staff, families, donors, and invited guests (in-person and on zoom).

Day 11

During the final morning together, the staff and students engaged in reflection activities and farewells.

MEETING GOALS

Outcomes: meeting the goals of the Girls* on Ice programme

The expedition met its goal to increase the participation of young women in field sciences, art, and outdoor recreation. It enabled high school-aged youth to lead and succeed by experiencing scientific inquiry in outdoor environments.

It also created a supportive network for early-career scientists, artists, and guides to develop their skills through continuing development opportunities and collaboration.

Feedback from the participants and expedition team show that as well as meeting the goals below, the experience had a profound impact on the girls' courage, self-confidence, and resilience and allowed them to form an incredible bond through camaraderie as they faced hardships.

For many of the girls the expedition increased or intensified their interest in outdoor activities, science careers, or art. Read some of their comments below.

Build relationships and cooperation between the United States and New Zealand

The programme built on the long-standing mutually beneficial relationship between Te Herenga Waka and the University of Alaska Fairbanks. American team leader Lauren Vargo brought learnings from her time at Girls* on Ice Alaska to the programme.

Create lifelong advocates for Earth science and environmental stewardship

"This was super rewarding. I've never done anything like this, this was my first hike. Last year I failed every science but this year I want to really give it a better try."

"I think art gave everything a deeper meaning, expecially with where you were in your surroundings because you had to pay attention to detail that you normally wouldn't look at."

"My personal highlight during my experience with Girls* On ice was making life-long friendships with the girls. This trip has been very inspiring for me as a person and had made me understand more about the STEM world which has been an amazing experience to actually get outside to learn."

"I've learned that there are so many different options for my life after high school, I have also learnt to be confident in myself and ask questions."

Foster our participants' sense of self-confidence in their physical, intellectual, and leadership abilities

"I learned I can do anything I put my mind to, even if it's difficult at the time, you can always work through and accomplish it."

"We come from different places around New Zealand and our schools are quite different, so it's nice to have a lot of different opinions and how we get to work together and learn how to be a team with different people."

"The big hike at the end felt really rewarding and you felt like you really accomplished something."

"It gives you a lot of self reflection. When we first went up to the hut, I thought that was a big hike but now I could just go up it and my mindset's completely changed in a better way. I could just go do it right now and I'd be fine. The self improvement is really there and you can see that everyone else has it as well."

"I didn't think I could hike the mountain but I hiked the mountain."

"You definitely learn to be confident in yourself when you're up there just pushing yourself out of your comfort zone. I felt like I wasn't doing good enough but once you get to know the members of your team they become like a small family and they help you grow confidence in yourself."

"I feel like I get more stronger when somebody's next to me and they're depending on me, like when we were buddying up and trying to go through tight places. Even though I was very scared, because my partner was also scared I was going faster to encourage her to do it."

"I push myself a lot even though I get tired I try and push myself until I get to the end."

"I learned from the instructors it's OK to take up space or to confront someone about something you need. It's OK to just share your ideas and have a voice and I think that's a really important thought for women in any field."

"I really enjoyed the friendships and the connections that we made being stuck together for seven days and pushing each other through hardships going up and down and in the caves."

"Everyone's input is really valued and it doesn't matter if you think it might be wrong, it's good to just contribute. That's not something you always get in school because that's such a large group but with these small group projects it was really nice to be able to contribute and not have that pressure."

"The instructors notice a lot about you and you don't always get that."

"I found going into it I was very nervous and coming out of it I'm much more confident."

"Honestly I have so many highlights it's hard to just pick one. I think my biggest highlight was swimming in the waterfall on peak physical day."

Future plans for Girls* on Ice Aotearoa

Our 2027 expedition is planned for 6-16 January 2027. Applications will be advertised in June 2026.

The Girls* on Ice Aotearoa expedition is the culmination of many years of preparation and planning by our team and volunteers which has proved infinitely worthwhile for the staff and participants.

This life-changing experience would not have been possible without you, our kind donors. We really couldn't have done it without you.

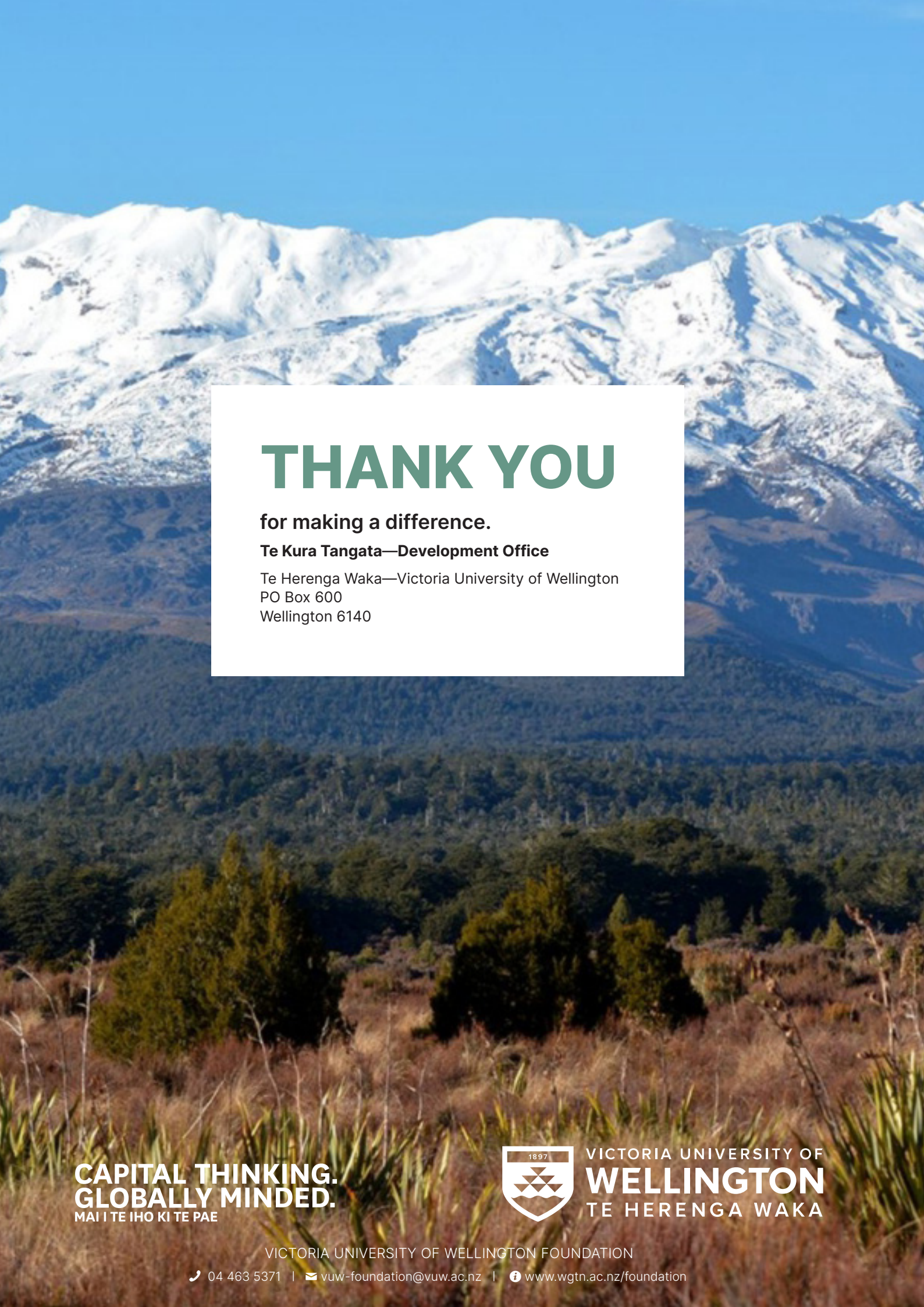
Te Hauhunga is the te reo Māori name of Girls*on Ice Aotearoa (GOIA).

Te means 'the', while 'hauhunga' has multiple meanings that together reflect the essence of the GOIA programme and its people. 'Hauhunga' can mean 'frost' or 'frosty', a reference to the large role ice plays in the expeditions, but it can also be translated as 'a pale green variety of greenstone.'

Just like greenstone, our students are considered taonga or a treasure. Additionally, 'hauhunga' can be broken down into two component words: 'hau' (vitality, vital essence) and 'hunga' (a group). Together these words suggest 'a vibrant group', a great description for our expedition teams.

Overall, the name Te Hauhunga conveys how valued our students are as they grow in confidence and vitality exploring Aotearoa's icy environments.

The name Te Hauhunga was created by Dr Meegan Hall and Professor Rawinia Higgins at Te Herenga Waka —Victoria University of Wellington.



THANK YOU

for making a difference.

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