



# QUARTERLY

NEWSLETTER OF THE NEW ZEALAND OUTDOOR INSTRUCTORS ASSOCIATION

ISSUE 93: MARCH 2023



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Articles should be submitted in Word format. All photos must be supplied individually in jpg format and cannot be used if embedded in a Word document. Submissions may be edited.

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**Thoughts from the Board**

Kia ora koutou,

We trust everyone has had a great summer of adventuring, recreating and working in the great outdoors. After an interesting few years, it's great to see that life appears to be back to business as usual or close to it. The office staff wrapped up 2022 by completing our latest safety audit. A big mihi goes out to the office staff for all your hard work.

2022 also highlights a big achievement in the development of NZOIA's Kaupapa. The feedback has been overwhelmingly positive. I was fortunate to attend the Ngā kupu taiao / Māori words in outdoor spaces workshop at the Symposium along with many other enthusiastic and interested people. There is a real thirst for knowledge as we look forward to further education and integration of Te Ao Māori into training, assessments and daily business.

The board met via zoom in December to wrap up the year and will have met again in February by the time you read this. While Covid

continues to be active in the community, it's nice to not have it dominating discussions and we can therefore turn our attention to other matters.

As we move into 2023 the focus continues to be operating in a financially challenging environment. This will look like focusing on the core business of running quality training and assessments. The strategic plan is also up for review and as usual, feedback helps to shape these outcomes, so don't be shy.

On a personal note, I was back in the hot seat sitting an assessment for the first time in a wee while. It was a good reminder of all the hard work people put into gaining qualifications and the pressure that comes with it. A big shout out to all of you training for and sitting assessments in the near future. We look forward to a productive 2023

Noho ora mai.

Ben White, NZOIA Board member



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Ngā mihi ki a koutou katoa...

On behalf of NZOIA I am excited to be introducing the first ever page dedicated to Te Ao Māori. Having had a kōrero with many members at our symposium last year I know you are enthusiastic to learn. Therefore, I hope we can present a page each Quarterly that adds to your kete (basket) of knowledge for you to take out into your personal and professional lives. I am also aware that among our members we have experience and expertise in Te Ao Māori so I encourage you to kōrero mai. We would love to share your stories, favourite kupu, whakataukī, karakia and resources.

We are all on our own journey with te reo (the language), tikanga (customs) and matauranga (knowledge) Māori so kia kaha, kia maia, kia manawanui – be strong, be brave, be steadfast.

## Kupu o te taiao (Words of the natural world): Weather

Note that these kupu may differ around Aotearoa and that Māori are likely to have many kupu to describe different states of a weather event.

<b>Huarere</b> – Weather	<b>Kōanga</b> – Spring
<b>Tāwhirimātea</b> – God/Guardian of weather	<b>Raumati</b> – Summer
Sun – <b>Rā</b>	<b>Ngahuru</b> – Autumn
Moon – <b>Marama</b>	<b>Takurua/Hōtoke</b> – Winter
Rain – <b>Ua</b>	<b>Wera</b> – Hot
Snow – <b>Hukapapa</b>	<b>Mahana</b> – Warm
Fog – <b>Kohu</b>	<b>Makariri</b> – Cold
Wind – <b>Hau</b>	<b>Tio</b> – Freezing

## Whakataukī – Māori Proverb

The difference between Whakataukī and Whakataukāki: Whakataukī are proverbs where the author is unknown and Whakataukāki are proverbs where the author is known. I have chosen this whakataukī for its brief but powerful meaning.

*He waka eke noa – A canoe which we are all in with no exception*

This is a great whakataukī to use if you are trying to make the point that we are all in this together and no one gets left behind no matter what.

## Karakia

For Māori, karakia are a powerful methods of communication with the Atua (gods/guardians) of Te Ao Māori (The Māori World). The human and Atua relationship is of great importance as is the relationship with Te Taiao (the natural world) and tangata (people).

I am by no means an expert on karakia but something that has always stuck with me is being told that karakia, like prayer, is only meaningful if you believe in it. Your meaning and belief may be for the Atua, your connection to and respect for Te Taiao or more simply your appreciation for the people and place in any given moment. So when looking for and deciding on karakia to use I encourage you to consider your beliefs and your environment, this will make it easier to find the right karakia for you.

I chose to share this karakia as it is a short and easy one to learn and can be used in a variety of settings. Maybe you will use it to start a new day with gratitude or to recognise an awakening or exciting beginning. Author and origin unknown.

<b>Korihi te manu</b>	The bird sings
<b>Tākiri mai i te ata</b>	The morning has dawned
<b>Ka ao, ka ao, ka awatea</b>	The day has broken
<b>Tihei mauri ora</b>	Behold there is life

## Useful Resources

**Te Aka Māori Dictionary:** This is a useful translation tool for Māori to English and English to Māori. It can be used online or you can download the app for iOS and Android.

**Traditional Māori Weather and Climate Forecasting:** Over the centuries, Māori have developed an extensive knowledge of weather and climate. The lessons learnt have been incorporated into traditional and modern practices of agriculture, sailing, fishing, and conservation.

<https://niwa.co.nz/sites/niwa.co.nz/files/Traditional-Maori-Weather-and-Climate-Forecasting-poster.pdf>

Karllie Clifton (Ngāpuhi Te Atiawa), NZOIA Board member

## Our Kaupapa

<p><b>Te Reo Māori</b></p> <p>is a taonga that allows us to understand and interact with te ao Māori.</p> <p>We will endeavor to include te reo Māori in all aspects of our communication.</p>	<p><b>Ako</b></p> <p>is the reciprocity of the teaching and learning relationship.</p> <p>We are committed to providing a safe and inclusive learning space for all.</p>	<p><b>Manaakitanga</b></p> <p>is to uplift one's mana by showing respect, generosity and kindness.</p> <p>We are committed to providing positive experiences for all, no matter the outcome.</p>
<p><b>Whakawhanaungatanga</b></p> <p>is about relationships and connections which are created through shared experiences and working together.</p> <p>We will make every effort to ensure there is a sense of belonging for all.</p>	<p><b>Kaitiakitanga</b></p> <p>is the guardianship and protection of place.</p> <p>This requires us all to nurture, preserve and enrich the environment in which we engage.</p>	<p><b>Pūkengatanga</b></p> <p>is providing and growing expertise through the pursuit of excellence.</p> <p>We will enhance skills by providing opportunities for everyone to progress.</p>

## ADVOCACY: RECREATION AOTEAROA SAM NEWTON

The Whakaari White Island disaster left 22 people dead and 25 people with serious life-long injuries. It triggered a range of work and reviews across the government. Recreation Aotearoa has contributed perspectives to WorkSafe, the Ministry of Business, Innovation and Employment (MBIE) and other government entities. By far the most relevant was the MBIE targeted review of Adventure Activities. Andrew Leslie from Recreation Aotearoa and I served on the Expert Reference Group that assisted with that review. Readers may recall the MBIE discussion paper released late in 2021. You may have contributed to the survey and information gathering we did prior to writing our own submission, or may have even made a submission yourself. The wheels of government have slowly ground on, so perhaps it is a good time to give a brief update.

In late September 2022, Cabinet finally considered and approved changes to the Adventure Activities regime. The decision was announced on October 1. These changes involve amendments to the Health and Safety at Work (Adventure Activities) Regulations 2016, and updates to the Adventure Activities Safety Audit Standard and guidance materials published by WorkSafe.

Pleasingly, the changes did not differ hugely from those signalled by the 2021 MBIE consultation. There are three main changes:

### Specific requirements for how operators must assess and manage natural hazard risks

WorkSafe will add a section to the Safety Audit Standard on assessing and managing the risks associated with natural hazards. They will also review the Standard more broadly and will publish guidance material on good practice management of natural hazard risks.

### Beefing-up requirements for operators to communicate risks to activity participants

A duty will be introduced in the Regulations which will require operators to have processes in place to communicate the risks associated with an activity, this will lift risk communication duties to the level of regulation. If operators do not meet this requirement, they will be fined.

Linked changes will be made to the Audit Standard and guidance materials. These updates will provide details on good practices for risk communication and the information that should be given to participants.

### Stronger operator registration and notification requirements

- Requiring adventure activity operators to register directly with WorkSafe (rather than via their auditor) and adjustments to the information they have to provide.
- Expanding the circumstances under which WorkSafe can refuse, suspend, cancel, or add conditions to operator registrations, where serious safety concerns arise.
- Providing WorkSafe with the power to temporarily suspend an operator's registration while the operator is under investigation.
- Introducing a list of sector-specific "notifiable incidents", which operators must inform WorkSafe of when they occur.

These will reflect near-miss incidents from major risks in the sector (the details of what specific incidents will be notifiable will be consulted on in the coming months).

### Reviewing and updating adventure activity safety guidance

WorkSafe will, over the next two years, review and add to the package of activity safety guidelines.

Some proposals that Recreation Aotearoa submitted opposition to, have not been taken up, including:

- Introducing specific regulatory requirements for landowners/managers
- Introducing a risk classification system.

At the time of that announcement, MBIE committed to consulting 'later this year' on some detail around some of those changes. This will allow interested parties to comment on the regulations' wording, and other areas like the types of notifiable incidents and the fine amount for breaching the risk communication duty. Suffice to say that 'later this year' has been and gone. The wheels grind on...

WorkSafe, however, has taken the bit between the teeth and commenced the process of doing their part by reviewing the Safety Audit Standard. In October, they released draft changes and called for Public Submissions. The main proposed changes were designed to introduce specific requirements for operators to assess and manage risks associated with natural hazards and provide detailed requirements for what information about risks must be provided to participants and how risk communication should occur.

While the proposed changes generally reflect what is currently good practice in New Zealand, the devil was in the detail. As such, Recreation Aotearoa made a comprehensive and detailed submission on the proposals, after surveying our membership and the broader sector on their perspective (thanks to those who took the time.)

We are in touch with WorkSafe via our monthly meetings, which include Tourism Industry Aotearoa, and are aware that the tricky issue will be when and how participants are provided with the risk disclosure. This will probably be more problematic in the Adventure Tourism space, where booking can be made via one or more agents long before the activity takes place and often in other countries.

Through all of this, we can see clear connections and loop-backs to what went horribly wrong on Whakaari White Island, over three years ago. Our challenge has been to show that poor practice is the exception rather than the rule. In doing so, the real risk of regulatory overreaction has, in my view, largely been averted. Good existing operators will probably not have to make huge changes to their Safety Management Systems (SMS), or at least find it quite easy to tweak towards compliance.

Kieran and I will keep working on your behalf.



Sam Newton, Advocacy Manager, Recreation Aotearoa





# MARK'S ARSE: ADVENTURE READY SURVIVAL TIPS

MARK RAYWARD

I think most people appreciate a good hot tip. I have a few, that over the years have threaded themselves into how I 'do' outdoor life.

Here are three of my current hot tips, they may well save your "ARSe" so to speak:

## 1. Good field repair tape – Eco Ply Barrier Sealing tape

I was put onto this building product about 15 years ago by a builder mate. It has proven itself many times over for repairing shell clothing, tents, dry top gaskets, packs and even socks. It's extremely sticky, flexible and won't come off, and is many times better than sail tape or duct tape.

The best way is to buy a roll from a big hardware store and sell it by the metre to your mates (30m x 60mm @ \$110). I carry about 50cm in a zip lock bag in my first aid kit. Here's a memory of ARSe saving proportions: a family tramping mission in the Arrowsmiths, a big gust blew a tent off the ground, and it tumbled over scrub. Two broken poles and several large tears were repaired using one metre of tape. The tent was made storm and weatherproof and our adventure was able to carry on.

## 2. Emergency weather protection

For years foil emergency blankets have been the standard for a person going adventure racing, hiking etc. A year ago, I bought a Dupont Tyvek 500 Xpert white contamination suit for a team-building activity. Tyvek material is well known for

its qualities in building but also as a fabric that can be used to make bivy bags and clothing. This suit got me thinking about how this could be utilized in the outdoors. I used to work at night riding motorbikes and the best single item of winter clothing was a pair of overalls. It is all about keeping the wind out.

I tested the suit out on a summer tops trip with some polytech students. They did laugh and made jokes when I pulled my very white suit out at mealtime. There was a cold easterly wind making it pretty chilly. "Who's laughing now?" I thought. My point here is that this super lightweight compact set of windproof, semi-showerproof, hooded overalls works a treat! If a person is unable to maintain body temperature through extreme weather, fatigue, or poor clothing, step into this extra layer and keep moving because staying active will aid your warming-up process. In other words, save your ARSe and let the adventure continue.

The fabric is not designed for heavy use or bashing through scrub and it doesn't like heat or flames (so not campfire leaping suitable). Whilst this started off as a bit of a laugh with students and staff, a bunch of these people now own a suit and they appear on a regular basis, especially on windy and cold trips. I buy mine from NZ Safety Blackwoods which costs \$15 for a Tyvek branded one. Buy a roomy fit so it fits over all clothing worn. There are cheaper brands and models but this is the best I've found for all-round performance. Use Eco Ply tape great for repairs and reinforcing crotch seams or decorate to personalise!

## 3. Compass issues

In the past six months I've heard of eight compasses, including two of mine, that haven't been working reliably; slow wandering needle, 180 out and weighted at one end. With the compass being a key piece of safety kit, reinforced by the well-known mantra, "trust the compass", this unreliability was getting pretty unsettling.

A few months ago on a hunting trip, a mate's brand-new compass was 180 degrees out. The three of us brainstormed this and worked out that all our headlamps had a powerful magnet built into them and that we stored our lights and compasses in the same pack pocket. My headlamp is the Nitecore HC 35, L shaped and on the battery access cap end there is a strong magnet built in so you can stick it to a steel surface so it becomes hands-free.

One mate said he had read how to re-magnetize a compass by stroking the magnet on the headlamp end cap from the centre of the needle to the outside north point several times. So, using the magnet of our torch we gave it a crack. And voilà, it worked; with

a quickly settled needle pointing where it should, our faith was restored, and once again our ARSes were saved (not the deer's).

The needle can go crazy when the magnet sits over the compass. I've had some, where the needle starts spinning rapidly and some, where it stays in one place. Either way, start moving the magnet from the centre pivot of the compass and over the north part of the needle. Make sure the magnet is on the compass face when moving outwards and lift it clear of the compass when returning to stroke again. Repeat this process about five times.

I'm sure many of you have your own hot ARSe saving hacks! Some would have come out of necessity, using good old Kiwi ingenuity and some may have been picked up in cross-over professions or heard from someone else, some people are just really smart! I bet there are some good yarns associated with these hot hacks too, I for one would love to hear them and I bet other NZOIA members would too.

Mark Rayward, NZOIA Bush Assessor, outdoor instructor, adventure racer

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# THE PLETHORA EFFECT

## BELAY DEVICES – OLD SCHOOL TO NEW SCHOOL, AND WHAT COMES NEXT

SAM RUSSEK

There is nothing better than a soft catch. Like a beautifully timed dance of intuitive body movement and foresight, creating the perfect symbiotic relationship between climber and belayer. The perfect belay is an ideal that fall catchers strive for. As instructors, it is time to pull belaying from the shadows of the mundane.

The history of belaying is a chaotic development from body belaying, Munter knot and stitch plates. Fast forward to 1991, about the time Dr Dre was dreaming up the Chronic Album. This is when Petzl revolutionised belaying by releasing the Grigri. Since then, many new assisted-braking devices have been developed, evolving in many directions, as well as names, terminology, and uses.

In this article, I will try to...

1. Clarify some terms
2. Look at the pros and cons of the three categories of belay devices
3. Give brief practical advice from my recent experiences testing these contraptions
4. Offer an overly simplistic explanation of how they work
5. Discuss the standards most are tested to and,
6. Speak to the plethora effect and how I feel this could create issues around use and safety.

### How do we categorise belay devices?

For every rule, there is an exception, and for every person, there is an opinion. I believe there are three types of belay devices; manual, passive and active.



Figure 1. Categories of belay device.

**Manual device** – old-school tubular devices (Black diamond ATC, Petzl Reverso, Mad Rock Wingman)

ADVANTAGES	DISADVANTAGES
Lightweight	Does not block automatically (belaying error can have dire consequences)
Widely used, and understood	Certain devices have less braking performance/ require greater braking hand force
Easy to use, for all climbing	
Does not damage the rope	Optimal dynamic belaying braking performance affected by rope diameter and condition
Cheapest option	Must have good holding strength to arrest falls.
Simple for abseiling	

**Passive device** – Tubular belay devices with geometry-assisted braking (Black diamond ATC Pilot, Edilrid Jul)

ADVANTAGES	DISADVANTAGES
Very high safety reserves due to higher braking performance	Dynamic belaying only possible via body dynamics
Allows quick paying out	Handling requires practice
Less hand braking force required	In some cases, a specific carabiner must be used.
Suitable for use with many types of rope	Requires very high-level rope management, any small tension will lock the device
Intuitive to use	“Normal” abseiling and belaying techniques will need to be altered
Cheap compared to active devices	The manual and user information is complicated and very specific to each device – an issue for ASGs

**Active device** – Assisted-braking belay devices, semi-automatic (Mad Rock Lifeguard Belay Device, Petzl Grigri)

ADVANTAGES	DISADVANTAGES
Very high safety reserves thanks to assisted locking function	Difficulties in paying out rope may lead to manipulation of the blocking mechanism
	Handling requires practice
	Paying out rope requires practice
	Can only be used with single ropes
	Comparatively large in size
	Dynamic belaying only possible via body dynamics
	Expensive

### Assisted Braking Devices (ABD)

These devices have been designed to increase safety margins for the climber, by locking down on the rope when a sudden force is applied, thus helping the belayer catch and hold a fall.

They use either:

1. Active moving parts that are called a cam-clutch mechanism (e.g. Petzl Grigri 2, Mad Rock Lifeguard).
2. Passive design, assisted braking using the geometry of the device to apply a squeeze/pinch type braking force to a rope (e.g. Black Diamond ATC Pilot).

In the event of a fall, these belay devices produce so much friction that they prevent the rope from running through the device, therefore holding a fall is less dependent on the braking force of the belayer's hands.

### How do belay devices work?

Manual/tubular devices act as a brake on the climbing rope by applying friction to it. Friction is created by the bends in the rope plus the belayer's quick “braking hand” (which locks off the free end of the rope). These are certified to EN 15151-2.

Active assisted braking devices have a cam-clutch mechanism which causes friction along a curved cam mechanism that functions rather like a car seat belt. If the rope is pulled through slowly, it won't block. If the device comes under a sudden load (e.g. a fall) a special mechanism is activated that blocks the rope completely. This mechanism is triggered by the increased friction when the rope runs through quickly. These are certified to EN 15151-1.

The passive geometry-assisted braking device uses geometry by simply pinching the rope between your belay biner and the device when the rope is weighted. These are certified to EN 15151-2

### Testing standards and manufacturer specifications

Decrease risk for you, your organisation and the clients,

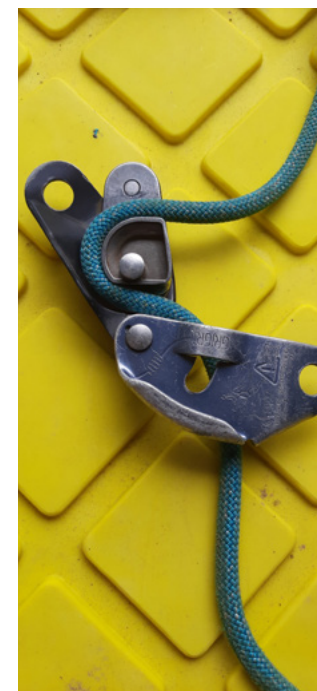


Fig 2. Clutch-Cam mechanics – rope pulling up (force of falling) causes the offset clutch to engage the cam.

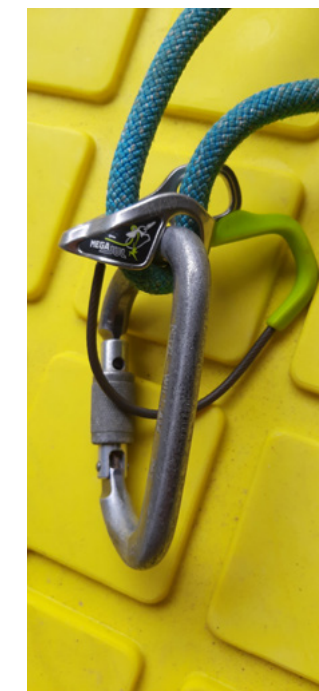


Fig 3. This image shows the “notched” design and geometry of a passive-assisted braking device. This creates the squeeze/pinch type braking force to a rope when the belay carabiner and the device body are forced together.

by being in the know. It clearly states in the Activity Safety Guideline (ASG) for indoor rock “ Ensure the belayer uses a belay technique suited to the belay system and in accordance with manufacturers’ instructions – particularly around managing the change over from climbing to lowering and catching a fall”.

We are seeing so many new devices these days, it can be challenging to decipher exactly what we can and cannot use them for. The International Union of Alpine Associations (UIAA) own and control the standards for climbing equipment and tests equipment to stringent European Norms (EN) standards. The EN are technical rules and definitions that have been drawn up specifically for products and product groups requiring standardisation.

Every belay device is marked with a UIAA symbol which shows that a product fulfils the requirements of the standard,

Rather than read the details of the standards, which are rarely accessed by end users because they are challenging to decipher, it is best to ensure you read ALL the manufacturer's instructions. This way you can ensure the belayer is using the correct technique for that device.

### UIAA EN standards

All belay devices have different manufacturing, testing, and compatibility requirements.

#### EN 15151-2

The most basics test all belay devices must have printed is EN 15151-2. This standard measures the strength of the device with a static test with a force of 7 kN (two strands of rope) and 5 kN (single strand) for 60 seconds. It also tests the strength of any additional attachment points with a force of 8 kN for 60 seconds.



## EN 15151-1

All assisted-braking belay devices must meet EN 15151-1 – this standard is more concerned with active ABDs. It tests the fall-arresting ability of the devices. Three tests are undertaken:

1. block loading force of 2 kN is applied to the braking device which has to withstand for 60 seconds. The rope is allowed maximum slippage of 300 mm through the braking device. After the test, there must be no damage to the braking device or the rope.
2. Static strength; when braking is locked, the device must be able to withstand a force of 8 kN for 60 seconds. After the test, there must be no damage to the braking device or the rope.
3. Dynamic performance when belaying; a mass of 80 kg in free fall is added to the braking device. The test is to be repeated three times. Based on the average of the three tests, the rope must not slip more than 1500 mm.

## Plethora effect

A plethora of something is a large amount of it, especially an amount of it that is greater than you need, want, or can cope with. This can be applied to belay devices and the problem they could cause with a large group instruction. There are so many types, over thirty! With user manuals the size of a textbook, each one has its own idiosyncrasies which must be mastered. Many have a specific carabiner that must be used.

To mitigate the risks associated with the plethora effect, I recommend organisations teaching clients to belay, buy one type, train staff and create a system and redundancy that will enable safe climbing and transference of learning to other belay devices.

Please note there is a trend in the USA to ban all tubular non-assisted belay devices in gyms.

## Take home messages

1. Have you considered redundancy – please utilise some system for backing up a beginner belayer to add layers of safety.
2. You should always follow the manufacturer's instructions for the type of carabiner to use and the recommended rope diameter.
3. Learn your device before you teach or instruct with a new device. Note some new devices react very differently when in top rope vs lead climbing mode.
4. Teach by progression. Start simple, and build knowledge and experience. In lead belaying, teach dynamic belaying (move the whole body towards and away from the wall), modern devices are not designed for static positioning.
5. The braking hand should ALWAYS be on the dead end of the rope, regardless of which devices are used.
6. Good positioning, in relation to the climber, is key to holding and arresting a fall. Closer to the crag is best.
7. It's important to use a pear / HMS carabiner with a suitable gate-locking mechanism to attach the belay device to the harness.
8. The belay device should always be clipped with the carabiner to the belayer's harness so that it's loaded in a lengthwise direction. A cross-loaded carabiner has less than half the braking strength than when it's loaded lengthwise.
9. Look after your belay device and it will look after you. As with all mechanical devices, belay devices should be kept free of dirt at all times to function reliably. A dirt-free device also helps to protect the rope. Belay devices made of aluminium should be checked regularly for sharp edges.

Sam Russek, NZOIA Rock Assessor

# COOKER SAFETY

GEMMA PARKIN

If you have attended a NZOIA event lately for disciplines which include overnight camping, you may have picked up on the increased discussion about cooker safety. Anecdotally it seems cooker-related incidents are on the rise which has led some people to ask, "Do we have enough focus on this important management skill?" With that in mind, I caught up with a few NZOIA instructors and guides to quiz them on their outdoor cooking management techniques.

## Q: Are there any incidents (your own or stories from others) that have affected the way you manage cooker safety?

**A:** I've seen the unfortunate aftermath of Trangia refuelling gone wrong. An instructor was refuelling a burner which was out but still warm and the meths caught fire burning back to the bottle. Spotting what was happening the instructor instinctively threw the bottle hitting a second instructor who suffered burns down their front. This incident happened more than ten years ago and I

think about it every time I use Trangia's and it influences the way I manage refuelling.

**A:** I once witnessed a student attaching a gas canister to a standard screw-fitting gas cooker. The little pssssh of gas that releases while screwing the canister on caught fire from a neighbouring cooker about 2.5m away, burning back to the canister. The student threw the canister and it exploded, fortunately, no one was injured.

**A:** At a journey transition our food and gear for the next leg was delivered to a hut in banana boxes by our support crew. We didn't check the boxes and didn't realize one of them contained gas canisters. Later that night we lit the hut fire and about 30 minutes later the hut was filled with what sounded like gunfire as the heated canisters started exploding. Fortunately, no one was injured and nothing caught fire. All fuel was stored in clearly labelled bins from that day forward.

**A:** While cooking in a hut with students one of the Trangias got bumped spilling burning fuel onto the bench. Helpful Joe Public stepped in to assist by tipping water all over the flame making it much worse. I now brief students on how to extinguish the fuel they are using if it does spill.

## Q: What age group/clientele do you usually work with? What's your cooker type of choice for this group, and why?

**A:** (Combined from multiple respondents) Secondary school students and Trangia's. They are low to the ground and stable making them a good option for group cooking, being able to sit a wok on top is also helpful. Not having small moving parts, seals and O rings removes some of the maintenance and risk when working with school-aged students. I prefer not to have compressed fuel with school students.

**A:** For secondary school students, mostly 15-18-year-olds, we use gas cookers with isobutane gas canisters. Part of our programme is about inspiring and encouraging our students to head into the outdoors with friends and whanau at the weekends. Gas cookers are cost-effective and easily accessible, they're what families are most likely to have at home. Teaching our students how to safely use a common cooker increases the relevance of the skill and their safety outside of programme time.



**A:** Tertiary students aged 18-30 ish. We use MSR Whisperlites as they are good quality, effective cookers and an example of current equipment relevant for the roles our students will take on. They're also easy to use once you know how and our systems around resetting, servicing and repairing cookers is part of teaching skills and good habits.

## Q: What are your top tips for managing clients with cookers?

**A:** Set up clear refuelling stations ten metres away from your cooking area no matter what type of cooker you are using, all burners and cooker heads and bottles need to go to that spot to refuel. If a Trangia burner is cool enough to pick up and carry to the refuelling station, it's cool enough to refuel.

**A:** Monitoring cookers is like monitoring belaying. At the start, it's direct supervision, close enough for hands-on intervention if things are going wrong. Once the students have demonstrated competence it moves to indirect supervision maintaining the ability to verbally intervene. Like belaying, stepping back to direct supervision during those key change-over moments (lighting, extinguishing etc.). Knowing that the prefrontal cortex of a teenager is still developing means I'd never leave them unsupervised while belaying, and the same applies to cookers.



**A:** Understand fuels, how they work and how to put them out. Then include that information in the briefing so students know what to do if it does go wrong. Some of my previous workplaces have carried fire blankets which can seem over the top at first but have come in handy a number of times.

**A:** Set up a designated cooking area, this could be a table or a circle on the ground. No one may step inside/over, sit in, throw, or pass anything over this area.

**A:** This might be controversial but sit down and get comfortable. I hear lots of people brief cooking in a crouching position so you can easily move backwards if the pot or cooker gets knocked. In my experience cookers get knocked because people are fidgeting. So pull up a tree stump and sit down properly in a position you can comfortably stay in.

**A:** Don't be a turkey (we'll leave it to you to trace that gem back to a member of the NZOIA whānau)

Thanks to all who contributed.



Gemma Parkin, Chair of NZOIA board





# INCIDENT SHARING: ROCK FALL

KIERAN MCKAY

This story may come across as really confronting and for some, it could be a reason to not go caving. That's not my intention. The intention is to draw attention to an issue with bolt anchors. In NZ, rockfall hazards are common, and frequently dealt with, let's keep the risks in perspective.

I like caving and I am often asked, "is there anything underground that you are scared of?" There is very little I am actually scared of however, I do have a lot of respect for rocks, because nearly all my closest calls have been due to rocks. I have had them fall on me, I have had them knock me over and toss me down a pitch. I have had a big rock fall on my sleeping bag (I wasn't in it at the time) and another fall to pieces and send me flying down a 15m pitch. Another time I tried desperately to fit my whole body under my helmet as an entrance collapse caused by another caver 30 metres above sent a few hundred kilos of rock roaring towards me. There was nowhere to go, and I cowered at the bottom of the shaft hoping that when the rocks hit, I was not going to get hurt too much. This may sound full on however, just remember I have been caving for 40 years and most of those 40 years have been at the sharp end of cave exploration in NZ.

Loose rock is an inherent risk of going caving in NZ, just like it is in the mountains, down canyons or on rock faces. We are a shaky island that's constantly on the move with many active fault lines running up and down the country. There are many places in New Zealand caves where you can actually get inside a fault line and the sight is pretty impressive. The crushed rock and the scratch marks on walls are quite humbling and a great reminder of the huge forces that shape our planet. Generally though, the places where we know the rocks are loose, we take more care. It's the places where we think the rock is solid, that's where we are often surprised.

I am sure we all have exciting loose rock incidents with many stories of close calls. Unfortunately, my incidents often leave me bruised and battered. My head and face bore the brunt of my latest loose rock escapade. I was 500 metres below the entrance of Viceroy cave which is located on the western side of Mt Owen. A group of Aussie cavers had found and explored the cave in the late 90s early 2000s and had turned back after running out of rope 450 metres below the surface. Even though the map showed a tantalising lead at the bottom it wasn't until last summer we went back. Gary, Stephen and I flew in as part of

the 2022/23 Bulmer expedition. On our second day we had got to the previous limit and were off exploring the unknown.

From the minus 300 metre level to 430 metres, we descended a large canyon-like passage. We built an anchor out of two rock screws. Just below the lip, we would often put in a redirector to pull the rope out of the water falling the down the pitch. Most of the pitches were close together so instead of cutting the rope we kept it as one length and just re-anchored it off two more screws or, as we got deeper, just off one. At one spot we used a 6mm Dyneema cord to build an anchor around a bollard and ten metres further down a single screw anchor. In the absence of a hammer, we used the drill to judge the rock quality. Solid rock just sounds solid, flaky crap rock sounds hollow. All our anchors were in good solid rock.

On our way out I was ascending the pitch just below the Dyneema cord when I was suddenly struck in the face by a very large rock, and I found myself falling. It was all over pretty quick, and I was left hanging on the rope beside a 150 kilogram rock which until a second or so beforehand was my anchor and it was still attached to the rope by the single screw. We had both fallen about 1.5 metres. Even though I had blood in my eyes, and it was dripping off my face and it hurt like crazy, both Gary and I took the opportunity to shoot some video of the aftermath. I then climbed over the rock, cut it free and shot off to the surface. My biggest concern was concussion and I know from previous experience that it is definitely best to suffer the effects of concussion while on the surface in the sun rather than deep underground. As it turned out I was fine, with just some impressive superficial wounds on my face.

### What impressed me about this incident was:

- The 8mm rope did not break after 250 kg took a two-metre fall.
- The screw did not pull out of the rock (Yay for screws, they are bomber!)
- The Dyneema cord on the anchor higher up did not break

### What concerns me now is:

- We could have easily placed two screws in the rock and had a pitch that was separated from the others. The rock was big enough.

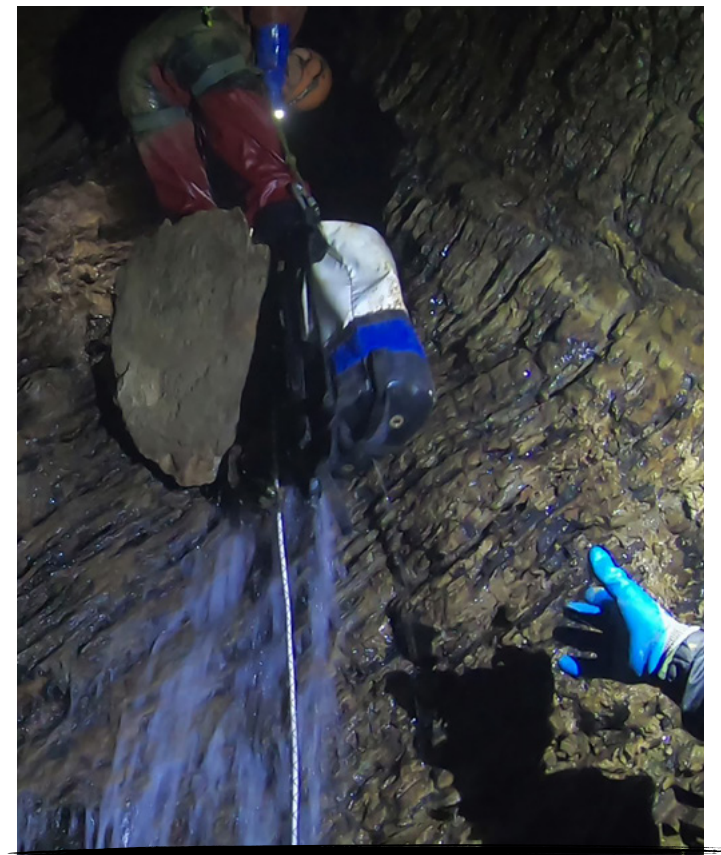
- If it had been possible to use a pull test rig on the anchor, I doubt it would have picked up that the whole piece of rock which measured 0.75m by 0.5m by 0.20m was going to fall off the wall.
- The rock sounded solid when we drilled the hole for the screw.
- There were no obvious signs the wall at that point was going to fall off. I didn't see any fracturing.

Ironically, I am involved in a review of how bolt anchors are being tested in NZ. According to ACC data we have had no double bolt anchor failures in NZ causing serious injury or death. This incident could well have been our first if we had rigged differently. We were very lucky.

### What did we learn?

1. It's not the integrity of the bolt we should be looking out for, it's the quality of the rock that is most important.
2. Maybe we should have been carrying a hammer then we could have beaten the rock a bit before building the anchor.
3. The rock we work in is unpredictable. Marble and limestone dissolves in weak acid, so the rock around any small fractures has the potential to dissolve and weaken the structure of the rock. The freeze-thaw process would probably have a similar effect on different types of rock up on the surface.

Take care out there.



Kieran McKay, NZOIA Cave Assessor

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# COLD WATER SHOCK

HENRY WORS

As winter approaches and the water temperatures around Aotearoa begin to drop, the risk of cold water injury increases. Cold water is defined in many scientific circles as water below 15 degrees Celsius. This includes most of our ocean, lakes and whitewater runs in winter, and also many in summer. Typically we associate the risk of cold water with hypothermia, but there is a bit more to the way our body is stressed by cold water and the risks it represents.

Michael Tipton is a Professor of Human and Applied Physiology at the Department of Sport and Exercise Science at the University of Portsmouth. His research states that "Roughly two-thirds of those who die from immersion do so only two or three meters away from a safe refuge, and they are regarded to be good swimmers".

We must recognise that, as much as we might like them, rules for exactly what will happen to a person after X amount of time immersed in cold water at X temperature does not appear to be overly useful. People will respond differently to different environments. In fact, the same person may even respond in different ways on different days depending on whether they have had a steak and cheese pie or porridge for brekkie.

Knowledge of general physiological deterioration, and meaningful interventions either as a victim or a rescuer, will help us manage this risk.

One thing researchers all seem to agree on is that cold water immersion can be broken up into four main categories:

1. Initial response – 0-5 minutes
2. Progressive response – 10-30 minutes
3. Hypothermic response – 30 minutes +
4. Post rescue response

### Initial response, 0-5 minutes

Following a sudden and often unexpected immersion in cold water results in a sudden fall in skin temperature, sometimes known as cold shock. This can result in several dangerous reactions. The most common of these is an involuntary inhalation (gasp reflex) which, if the patient's airway is submerged, may lead to drowning.

Secondly, cold stress generally leads to hyperventilation which if uncontrolled may lead to unconsciousness. The heart speeds up and our blood pressure increases due to peripheral vasoconstriction. This can have dangerous repercussions in terms of cardiac arrhythmias and even cardiac arrest. What does this all mean for the rescuer?

**Mitigation** – Assess the risk of unexpected cold water immersion for outdoor activities and have a plan to rescue someone who might not be able to obey commands due to respiratory distress. The sudden drop in skin temperature in the initial response phase can be reduced by wearing wetsuits, drysuits or other clothing that will trap warm water next to the body. Ensure everyone, including the potential rescuers, are dressed appropriately.

There also seems to be evidence out there that training and conditioning helps to reduce cold shock and will help people hold their breath long enough to get their head above water again. Aside from the health benefits, regular cold water swims are known to reduce the gasp reflex during an unexpected immersion.

### Progressive Response, 10-30 minutes

Our cells need to stay within our normal body temperature range to function effectively. As cooling penetrates deeper into the body, the function of muscles and nerves in the extremities deteriorates. This results in reduced motor and sensory function meaning anyone who needs to swim or hold on to something to

stay afloat and keep their airway above water has an increased risk of drowning. It is common to hear about drowning victims letting go of the thing that has been keeping them afloat after around 20 minutes as the cold destroys the ability for their muscles to work.

**Mitigation** – Floatation devices do reduce heat loss slightly over time, however, their main benefit is to keep a person afloat when they can no longer do it themselves. We lose heat significantly faster in water when we exercise so not having to swim to stay afloat will save energy and body heat. We also lose heat much faster in the water than in the air. Even if the air feels colder, get people onto something that floats as soon as possible. If you can't fit people on top of a floating object, use the first 10 minutes to try and secure people to the object in anticipation of a decline in motor skills.

A study in the UK found that 60% of cold water immersion fatalities were a result of these first two stages and not, as previously thought, from hypothermia.

### Hypothermic Response, 30+ minutes

Once our core body temperature drops below 35 degrees, we are technically hypothermic and a further drop can result in the inability of the body to rewarm itself and eventually death.

**Mitigation** – Appropriate clothing greatly reduces the rate at which we lose heat. Divers in thick wetsuits have been found alive after floating in cold water for several days whereas people who have unexpectedly ended up in the water in just togs have succumbed to hypothermia within an hour.



### Post-Rescue Response

It is common for hypothermia victims to hold on while they are waiting, only to pass away when they relax as rescuers arrive. Known as circum-rescue collapse, no one seems to be entirely sure of the physiological reasons for these collapses but there are theories around changes in stress hormones being responsible.

**Mitigation** – Keep hypothermic patients in a horizontal position as much as possible during rescue and encourage them to keep fighting for survival.

### References

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Henry Worsp, PEAK Safety





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# PROFILE: TOPEC

TOPEC (Taranaki Outdoor Pursuits and Education Centre) is a modern 21<sup>st</sup> century outdoor living laboratory of learning. Everything is geared towards a people-focused culture where adventure experiences with nature challenge, inspire and personally reward. Week-on-week TOPEC staff stretch students towards their potential through life-affirming experiences that build self-confidence, resilience and initiative. Positive interactions with nature leave students with self-sustainability – the realisation they can influence their own life in a positive way.

Situated on the banks of the Waiwhakahiho River, in a picturesque bush setting just outside New Plymouth, TOPEC is run by Grover Worsfold (Director), Claire Allen (Office Manager) and Josh Kirby (Programme Manager) and a hard working, industry experienced team. Staff are NZOIA qualified, and the location, facilities, and specialist equipment provide experiences that exceed expectations.

TOPEC understands the context for education is ever changing, so provides a flexible outdoor education pathway and qualifications for secondary and tertiary students. Programmes support young people to learn to take care of their internal experience and include residential camps, NCEA courses, the Duke of Edinburgh's Hillary Award and secondary-tertiary NZ Certificate courses. Learning could involve: leading groups in the outdoors, managing risk to enable safe but challenging experiences, interpreting weather, bush survival and navigation, environmental sustainability, pest control operations, abseiling, climbing and caving, rafting and kayaking. Confidence will grow; communication will improve.

Leadership and teamwork development are integral to all programmes. Instructors facilitate leadership, decision-making, problem-solving, and communication skills. Overall, TOPEC ensures students can venture safely in any environment and become work-ready to participate in a rewarding industry and a sustainable future.

## TOPEC Secondary-Tertiary Education offerings:

- Level 3 Pest Eradication and Bush Survival
- Level 3 Leadership
- Level 3 Leader Facilitation
- Level 3 NZ Certificate in Outdoor Experiences
- Level 4 NZ Certificate in Outdoor Leadership (with strands)
- Level 5 NZ Diploma in Outdoor and Adventure Education (Multi-skilled) in partnership with WITT Te Pukenga.

Primary School, Junior Secondary School and NCEA residential camps also run throughout each school term. River and bush education days are always popular. Kayaking and rafting is done on Taranaki awa, all flowing from the mighty Taranaki Maunga. Youth experience the region's natural beauty and develop vital outdoor, risk management and personal growth skills.

## Sustainability in Action

At TOPEC the principle of kaitiakitanga is followed. A kaitiakitanga kaupapa allows students at TOPEC to act as guardians preserving and protecting the Taranaki taiao, keeping its mana intact as well as enhancing the mana of the students. TOPEC offers opportunities for groups to participate in outdoor activities with minimal impact on the areas visited. Sustainability, conservation and environmental project initiatives include:

- **Environmental Projects:** an earth oven made from clay, a recycled cattle trough and some good old Kiwi ingenuity, planting of an orchard and vegetable garden, development of two outdoor classroom areas, and creation of a camping area nestled amongst recently planted native seedlings.
- **Recycling:** TOPEC is acknowledged by New Plymouth District Council for their waste recycling efforts, a old classroom has been recycled into the new Jourdain Whare, and TOPEC plans to be fully off-the-grid by 2030.
- **Eco Lodge:** constructed from recycled and sustainable materials, is solar-powered and harvests rainwater.
- **Native Plant Regeneration:** along the Waiwhakahiho River and throughout the 135 hectares that TOPEC has agreements with Iwi, DOC, TRC and private landowners to protect and restore the whenua.
- **Pest Control:** at Araheke and Meeting of the Waters Reserves, and at Umutekai Wetlands.
- **Te Ao Māori:** local histories and stories of what the land was like, how it was used, and how it is used today to increase awareness of the human impact on the environment.
- **New 2023 Project:** through Tuia Ki Tawhiti funding TOPEC will combine safe recreation, challenge and resilience with sustainability by connecting students to Te Taiao (whenua and wai) through Outdoor Education, Matauranga Maori and a Te Ao Maori view.

## Inspire learning, growth and potential

In 2021, TOPEC reset its Vision to: inspire learning, growth and potential. It supports this with a Mission to create positive relationships, community and personal change, through experiential learning, adventure and challenge. The key outcomes of TOPEC programmes serve adolescent wellbeing, developing self-confidence, self-esteem and self-management.

The Taranaki Outdoor Pursuits and Education Centre is a great place to challenge yourself as a staff member, alongside over 2000 young people who walk through the TOPEC gate every year. With your help they will exit through that same gate a more determined and self-aware young adult.

Christine 'Grover' Worsfold – [director@grover@topec.co.nz](mailto:director@grover@topec.co.nz)  
 Claire Allen – [bookings / general enquiries office@topec.co.nz](mailto:bookings/generalenquiries@topec.co.nz)

# Congratulations

to the following members who recently gained NZOIA Qualifications!

<b>Abseil Leader</b>	Aqua Hughes, Camryn Parkes, Casey Vincent, Cole Robertson, Elise Reid, Felix Williamson, Georgia Prince, Griffyn Gibson, Holly Thomas, Josh Scarlet, Maria Jaquiere, Maya Cardona Hay, Olly Thomas, Phoebe Bron, Ruby Kirwan, Sophie O'Sullivan, Shay Oates, Fletcher Phelan, Sienna Lester, Oliver Lewis, Bredon Castle, Brooke Robertson, Charlotte Barrett, Andrea Farrelly, James Parker, Will Taylor, Jack Triggs, Karisa Webster, Jonelle Wiki Arapeta, William Wright, Stephan Hutchinson, Matt Dunlea, Paige Luff, Cade Kelly, Abby Howes, Jacob McLeod, Jake Millener, Olivia Evans, Whitney Frame, Alexandra Corboy, Holly Russell, Jayden Flanagan, Aimee Lobb, Willow Denovan-Stroud, Sam Lange, Stacey Bark Riki, Emersyn Coxhead
<b>Bush Leader</b>	Sienna Lester, Oliver Lewis, Cam Pawson, Brooke Robertson, Wilson Robertson-King, Georgia Skelton, Melanie Telford, Breanna Ward, Philip Grainger, Melissa Greene, Aleia Hedges, Luke Higinbottom, John Hollingsworth, Matthew Ashworth, Tristan Bennett, Anne Commons, Brenna Coster, Georgia Gold, Nathaniel Hayes, Rose-Mary Hovell, Louise Newark, Nathan Phillipson, Abby Stokes, Jacinta Fraser, James Hurst, Harry Johnstone, Yuki Kiyohiro, Maddi Maffey, Jaime Sleator, Alex Manning, Amy Brown, Athena Jones-Collings, Charlie Doak, Ella Yeoman, Emma Furnival, John Andrew Blyth, Jonathan Lee, Kyle Frank, Miriam Barton, Moanaroa Witana, Zoe Brawn, Emersyn Coxhead, Sam Lange, Blue Howard, Alexis Coombs, Robert Wilberforce, Joe Hampson, Ellia Leger, Simon Ross, Erin Lunardelli, Colton Carolyn, Liam Grossi, Jeffrey Nilsson, Lauren Riddel, Nina Sims, Bjarke Bredsdorff, Danielle Lomas, Holly Todd, Jelizaveta Ivanova, Colin Hyatt, Jake Matsell, Emily Hodan <i>Scouts Aotearoa:</i> Tony Lyle
<b>Bush Leader Overnight Endorsement</b>	Aqua Hughes, Camryn Parkes, Casey Vincent, Cole Robertson, Elise Reid, Felix Williamson, Georgia Prince, Griffyn Gibson, Holly Thomas, Josh Scarlet, Maria Jaquiere, Maya Cardona Hay, Olly Thomas, Liv Waters, Phoebe Bron, Ruby Kirwan, Sienna Casbolt, Sophie O'Sullivan, Richard Stanton <i>Boys Brigade:</i> Mike Brewer, Stewart Thompson, Aidan Beals <i>Scouts Aotearoa:</i> Tricia Cox, David Taylor, Jonathan Downes, Dominic Stevens
<b>Bush 1</b>	Verity Walkinshaw, Joseph Scott, Ethan Roadley, Rebecca Willis, Peter Ross, Grace Robertson, Jack Wilson, Anthony Wood, Kendall Shuker, Danelle Kelliher, Andrew Regan, Jake Harris, Sarah Douglass
<b>Canoe Leader</b>	Emersyn Coxhead, Stacey Bark Riki, Sam Lange, Madelyn Ings
<b>Canoe Guide</b>	Luke Nelson
<b>Canyon Leader</b>	Michael Hutchinson, Matt Dunlea, Amy Rowse, Paige Luff, Cade Kelly, Abby Howes, Jacob McLeod, Jake Millener, Olivia Evans, Alexandra Corboy, Holly Russell, Jayden Flanagan
<b>Cave Leader</b>	Sam Lange
<b>Cave 2</b>	Pip Rees
<b>Climbing Wall Supervisor</b>	Michelle Crowe, Matthew Bostock, Doireann Meade
<b>CWS – Monitor Lead Endorsement</b>	Matthew Bostock
<b>Kayak Leader</b>	Camryn Parkes, Casey Vincent, Elise Reid, Felix Williamson, Georgia Prince, Holly Thomas, Jared Dickson, Maria Jaquiere, Maya Cardona Hay, Olly Thomas, Liv Waters, Phoebe Bron, Sienna Casbolt, Sophie O'Sullivan, Fletcher Phelan, Cam Pawson, Wilson Robertson-King, Georgia Skelton, Breanna Ward, John Hollingsworth, Rebecca Willis, Aimee Lobb, Willow Denovan-Stroud, Connor Mcleay, Hannah Fleury, Isaac Bayldon, Yasmin Wessels
<b>Kayak 2</b>	Stewart Tokerangi, Jon Harding, Benjamin White
<b>Mountain Bike Leader</b>	Brendon Castle, Karisa Webster
<b>Mountain Bike 1</b>	Stephen Onyett, Matthew Cole
<b>Rock Leader</b>	Aqua Hughes, Camryn Parkes, Casey Vincent, Cole Robertson, Elise Reid, Felix Williamson, Georgia Prince, Griffyn Gibson, Holly Thomas, Josh Scarlet, Maria Jaquiere, Maya Cardona Hay, Olly Thomas, Phoebe Bron, Ruby Kirwan, Sophie O'Sullivan, Eilish Alfeld, Alisha Gall, Ditta Juel, Connor Leov, Sienna Lester, Oliver Lewis, Max McClimont, Shay Oates, Grace Paul, Cam Pawson, Fletcher Phelan, Brooke Robertson, Wilson Robertson-King, Emma Russell, Georgia Skelton, Melanie Telford, Breanna Ward, Charlotte Barrett, Brendon Castle, Andrea Farrelly, James Parker, Will Taylor, Jack Triggs, Karisa Webster, Jonelle Wiki Arapeta, William Wright, Stephan Hutchinson, Matt Dunlea, Amy Rowse, Paige Luff, Abby Howes, Jacob McLeod, Jake Millener, Olivia Evans, Whitney Frame, Alexandra Corboy, Holly Russell, Jayden Flanagan, Aimee Lobb, Willow Denovan-Stroud, Sam Lange, Stacey Bark Riki, Emersyn Coxhead, Blue Howard, Alexis Coombs, Robert Wilberforce, Joe Hampson, Ellia Leger, Simon Ross, Erin Lunardelli, Colton Carolyn, Liam Grossi, Jeffrey Nilsson, Lauren Riddel, Nina Sims, Bjarke Bredsdorff, Danielle Lomas, Holly Todd, Jelizaveta Ivanova, Colin Hyatt, Jake Matsell, Emily Hodan, Hannah Fleury, Isaac Bayldon, Julian van der Put, Sacha Bennett, Yasmin Wessels, Connor McLeay
<b>Rock 1</b>	Rachel Baker, Ethan Roadley, Oscar Hadley, Anthony How, Rebekah Clews, Oliver Bone, Luke Amos, William Sinclair, Alex Booker, Wilson Robertson-King, Georgia Skelton, Rebecca Willis, Afiq Avinesh, Breanna Ward, Cam Pawson, Eliot Mckelvey
<b>Rock 1 – Sport Climbing Endorsement</b>	Natasha Mealing, Doug Aitken
<b>Sea Kayak Leader</b>	Charlotte Barrett, Brendon Castle, Andrew Farrelly, Samuel Gee, James Parker, Will Taylor, Jack Triggs, Karisa Webster, Jonelle Wiki Arapeta, William Wright, Matt Dunlea, Whitney Frame, Alexandra Corboy, Amelia Jury, Pooja Dahbi
<b>Sea Kayak 1</b>	Matiu Kapa, Chris Lacoste





## NZOIA Assessments, Training and Refresher Workshops

Course	Course fee (NZOIA Members) *
Refresher Workshops	\$215 (\$115 1/2 day)
Training Courses	\$450 (\$245 1 day)
<b>Assessments</b>	
<b>Leader Assessments:</b> Abseil Leader Bush Leader Canoe Leader Canyon Leader Cave Leader Kayak Leader Mountain Bike Leader Rock Leader Sea Kayak Leader	These assessments are run under the Free Range Assessment Model <b>\$150 plus</b> any Assessor fees and expenses.  Please contact an Assessor directly via our website to arrange an assessment and their fee.  You are required to be a Full Member to attend a Free Range Assessment (or be listed under a NZOIA Affiliated or NZOIA Climbing Wall Membership).
<b>Other Assessments:</b> Artificial Whitewater Climbing Wall Supervisor (CWS) CWS: Monitor Lead Endorsement	
<b>1 Day Assessments (land based 1:4 ratio)</b> Sport Climbing Endorsement	\$315
<b>1 Day Assessments (water based 1:3 ratio)</b> Sea Kayak 1 Upgrade Multisport Kayak Endorsement	\$325
<b>Overnight Assessment (Midday to Midday)</b> Overnight Endorsement	\$365
<b>2 Day Assessments (land based 1:4 ratio plus evening session)</b> Cave 1 Mountain Bike 1 Rock 1 Sport Climbing	\$615
<b>2 Day Assessments (water based 1:3 ratio)</b> Kayak 2 Upgrade Sea Kayak Guide	\$615
<b>2 Day Assessments (water based 1:3 ratio plus evening session)</b> Canoe Guide	\$655
<b>3 Day Assessments (land based 1:4 ratio plus evening session)</b> Alpine 1 Bush 1 Canyon 1	\$815
<b>3 Day Assessments (water based and NZOIA 2 1:3 ratio)</b> Kayak 1 & 2 Multisport Kayak Sea Kayak 1 & 2 Mountain Bike 2	\$835
<b>3 Day Assessments (water based and NZOIA 2 1:3 ratio plus evening session)</b> Canoe 1 Bush 2 Cave 2 Canyon 2 Rock 2	\$875
<b>4 Day Assessments (NZOIA 2 1:3 ratio plus evening session)</b> Alpine 2	\$1075

The course calendars for Assessments, Training and Refresher workshops can be found at [www.nzoi.org.nz](http://www.nzoi.org.nz). Members are notified of updates to the calendar via the NZOIA 4YA – our weekly email.

### Booking for an NZOIA Assessment, Training or Refresher Workshop

1. Go to [www.nzoi.org.nz](http://www.nzoi.org.nz)
2. Check out the Scope and Syllabus, if you are applying for an assessment then make sure you meet all the pre-requisites.
3. On the course calendar, find the event you want to apply for (you will need to be logged into your member profile) and select 'Apply'. Upload any prerequisites (i.e. your logbook, summary sheet, first aid certificate and any other required documentation to your application).
4. Applications close 6 weeks before the course date.
5. After the closing date we will confirm that the course will run.
6. If NZOIA cancels a course, you will receive a full refund/transfer of your fee.
7. If you withdraw before the closing date, you will receive a full refund of your fee. If you withdraw after the closing date of a course, **the fee is non-refundable**. It is transferable under exceptional circumstances (e.g. bereavement, medical reasons), medical certificates/other proof may be required. **Contact [admin@nzoi.org.nz](mailto:admin@nzoi.org.nz)** for more details.

### Further Information

Details of courses run by NZOIA, pre-requisites and online payment are all available at: [www.nzoi.org.nz](http://www.nzoi.org.nz)

### Courses by special arrangement

It is possible to run assessments on other dates. You will need a minimum of 3 motivated candidates and the date of when you would like the course to be run. Go to the Custom Courses page on the website [www.nzoi.org.nz/qualifications/courses/custom-courses](http://www.nzoi.org.nz/qualifications/courses/custom-courses) for details on how to arrange a course.

### Course Costs

All courses run by NZOIA are discounted for members and heavily subsidised by external funding.

\*Course fees are for NZOIA Members only unless stated otherwise.

[www.nzoi.org.nz](http://www.nzoi.org.nz)

**NZOIA**  
Excellence in Outdoor Leadership

## We want your story!

We are looking for contributions from you, the NZOIA members, for the NZOIA Quarterly. Do you have a story to tell? Do you know someone who has thoughts to share?

Articles could be:

A personal adventure and how your experiences have impacted your instruction/guiding of others.  
/ An incident, near miss or accident that others could learn from. / A personal profile – an interesting tale about how you got to be where you are now in the world of outdoor instructing.  
/ An organisation that is doing innovative and interesting things – with its programme, philosophy, direction and instruction or guiding. / A reflection on any aspect of outdoor instruction/guiding that you think would be educational and beneficial for others to hear.

Contact the editor with your ideas and for guidelines: [editor@nzoi.org.nz](mailto:editor@nzoi.org.nz)



**bivouac/outdoor**

COMMITTED TO ADVENTURE

we ARE climbing



John Palmer at Sunnyside, Wanaka  
Photo: Tom Hoyle

For over thirty years Bivouac Outdoor has been proudly 100% New Zealand owned and committed to providing you with the best outdoor clothing and equipment available in the world. It is the same gear we literally stake our lives on, because we are committed to adventure and we ARE climbing.

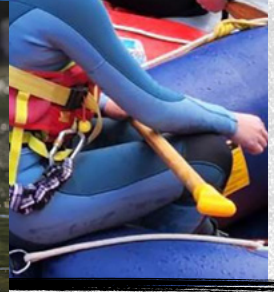


STORES NATIONWIDE  
[www.bivouac.co.nz](http://www.bivouac.co.nz)





# PLANTING THE SEEDS OF ADVENTURE



Photos supplied by TOPEC

Profiles of organisations are welcomed for the back page series "Planting the Seeds of Adventure". Contact [editor@nzoiia.org.nz](mailto:editor@nzoiia.org.nz)

