### Bushwalk Australia



We acknowledge the Traditional Owners of this vast land which we explore. We pay our respects to their Elders, past and present, and thank them for their stewardship of this great south land.

Cover picture



Long Plain, Kosciuszko NP by Matt McClelland

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Please send any articles, suggestions or advertising enquires to Eva.

We would love you to be part of the magazine, here is how to contribute - Writer's Guide.

The copy deadline for the October 2018 edition is 31 August 2018.

Warning

Like all outdoor pursuits, the activities described in this publication may be dangerous. Undertaking them may result in loss, serious injury or death. The information in this publication is without any warranty on accuracy or completeness. There may be significant omissions and errors. People who are interested in walking in the areas concerned should make their own enquiries, and not rely fully on the information in this publication.

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Please consider joining a walking club or undertaking formal training in other ways to ensure you are well prepared for any activities you are planning. Please report any errors or omissions to the editor or in the forum at BWA eMag.

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The Steamers, Queensland Andrew Smith

#### From the Editor

Wow - 30 editions of Bushwalk Australia.

What a great milestone. I want to stop and say a big thanks to all the authors and photographers who have contributed so much of their time, effort and artistry to share their love of wild places with us all over nearly five years.

A big special thanks to Stephen who has worked with all the authors to edit each article making them a real joy to read. Eva carefully and diligently lays out every edition with style and elegance. There is no way I could thank or list every contributor individually, but I must raise a glass to Sonya, who whets our appetites or writes about food in each edition with new food ideas that are as delightful as they are delicious.

I hope readers are enjoying the magazine. Please use the vote up or down buttons on each article and let us know your feedback. This magazine is here to help make bushwalking better, so please let us know how we can improve that for you.

meter Millet and

Happy walking Matt:)

Matt McClelland (aka Wildwalks) matt@bushwalk.com





#### Declaration

The bushwalking community is a small world and paths often cross. To improve transparency I thought it would be helpful to list my associations within the outdoor community. In many cases I approached the authors of the articles included in this edition and suggested the topics. The opinions stated in articles are those of the authors and not of those involved in the production of this edition. The authors are mostly people I know through Bushwalk.com. I operate Bushwalk.com and Wildwalks.com and have written several walking guide books, published by Woodslane, I have also written for Great Walks. I contract part time to National Parks Association NSW on an ongoing basis to coordinate their activities program. I have had a partnership with NPWS NSW and have hosted advertising for Wild magazine. I have also partnered with a large number of other organisations in environmental campaigns and have a regular bushwalking segment on ABC regional radio. There is some commercial advertising through the magazine. I have probably forgotten something - if you are worried about transparency please either write to me or raise the issue on Bushwalk.com.

#### In the News

Australia - a world leader in biodiversity loss? More and more animals and plants are on the list of threatened species.

#### **Warragamba Dam**

An environmental battle is emerging between the NSW Government and a group of conservationists that are trying to conserve hundreds of Indigenous heritage sites, native vegetation and 65 kilometres of pristine streams. Bob Debus (former Blue Mountains MP and Environment Minister) and Harry Burkitt (Colong Foundation for Wilderness) will travel to Bahrain in the hope the governing body for world heritage will stop the proposal.



On the endangered species list Wedge-tailed Eagle Jason Benz Bennee

Paddy Pallin photo competition supporting wild rivers
Paddy Pallin are donating \$2 for every photo entry. Entry is free.





### An Abel Challenge

Zane Robnik



The Abels books were always on the bookshelf at home, ready for me to flick through and find adventure, and one day I thought "Why not try to climb them all?" I handed in my three weeks notice, and made a blog site. The adventure began.

What is an Abel? In the easiest way to describe, they are mountains in Tasmania above 1100 metres in altitude, with a prominence from surrounding land of 150 metres. There are 158 Abels, with some very easy, and some are far from a Sunday stroll! I set a loose goal of 18 months to try to climb them all, and on 26 November 2015, along with my brother and my father, I went up the mountain in my old stomping grounds, Mount Arthur. I had climbed around 35 Abels before I started my challenge, but I thought I should start again to see how fast I could climb them all.

Over the next year and a bit I went out on many a mission, with some highlights being a 10 day trip into The Spires and surrounding mountains, a similar length Eldon Range traverse, a five day Du Cane traverse in heavenly autumn weather, and climbing Federation Peak with my father. By early April



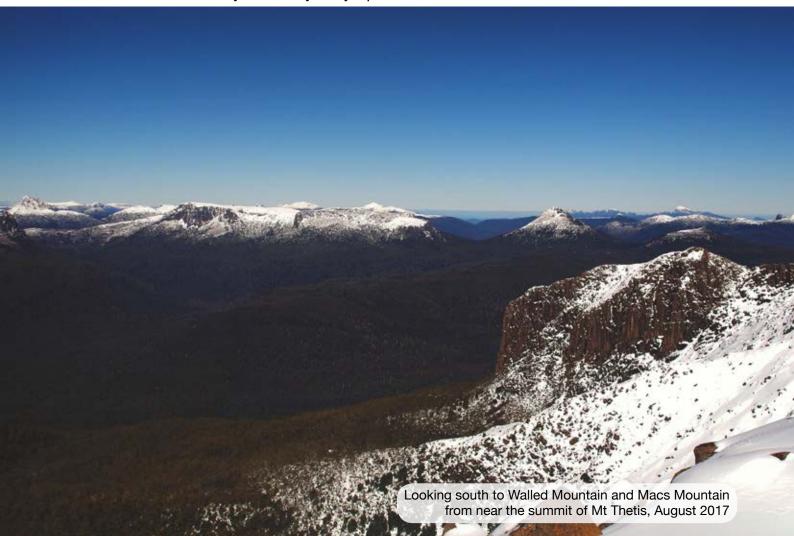
Eldon Bluff from near Lake Tahune en route to Frenchmans Cap, March 2018

2017 I had just climbed to the top of Mount La Perouse, on the Southern Ranges, by far, one of my favourite mountain ranges in Tasmania. It was my 126<sup>th</sup> Abel, and I was getting close to the end, the 18 month goal

was feasible! However, I sat atop Mount La Perouse and wallowed. I had a serious run in with The Black Dog. I realised that I wasn't feeling joyful for the walking I

... I was pursuing a goal that wasn't necessarily important to me.

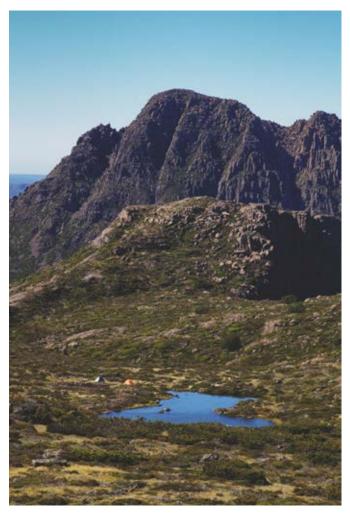
was doing, and probably hadn't for the last dozen or so peaks. I didn't feel like I was bushwalking for the reason I love it, instead, I was pursuing a goal that wasn't necessarily



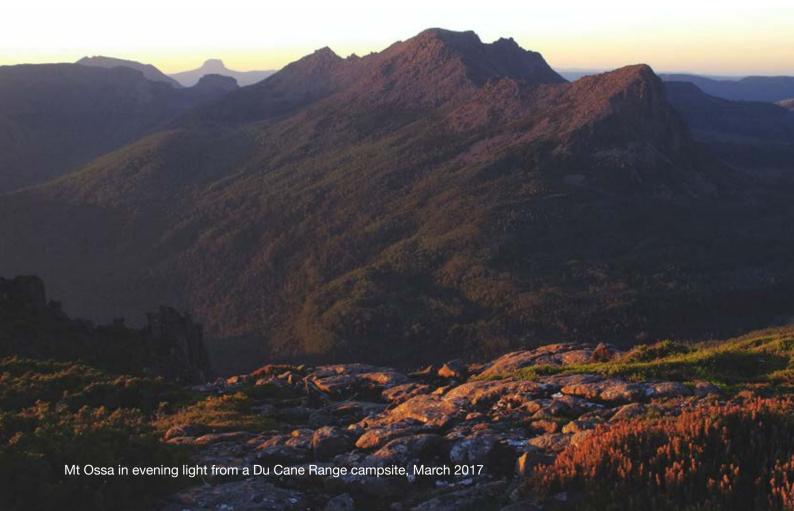
important to me. I had planned on being out for about 7-8 days, but instead I went home on day two. I didn't walk much over that winter, and I felt so much better for it. When I did get back out and start climbing Abels again, it was with a renewed love, and a deeper understanding of myself that I went out with.

I still thought it would be fun to aim for some kind of time goal, and ended up thinking that before my 26th birthday in June would be a good target. I liked the idea of being 25 when I finished, it's a nice number and it satisfied my O.C.D. Many more walks were had, and some of my best memories were made, paddling the glass flat water of Leeawuleena (Lake St Clair) to climb Mt Ida with one of my best mates, Nick. Heading off on a four day solo walk out to Mt Nereus, known as one of the least fun Abels. And one of my favourite walks I've ever done, a solo Southern Ranges out via the South Coast Track.

But above all, one memory that will forever stay with me is Stacks Bluff. On the 10 June 2018, 927 days after I started bagging Abels, with 11 family members and close friends, I reached the summit of my last Abel. I screamed out a YAHOO!! and heard a chorus



Guardians campsite with Mt Gould towering behind, from the summit of The Guardians, March 2017

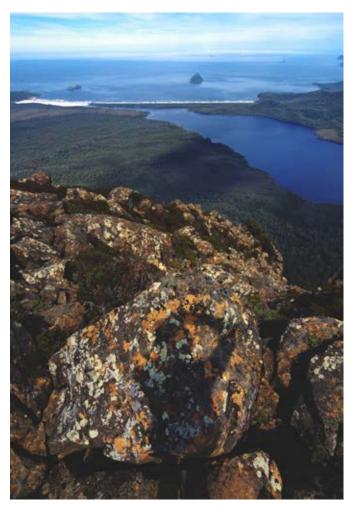


of celebration behind me as I ran up the final lump of rock that sports the summit trig. And I promptly broke down in tears.

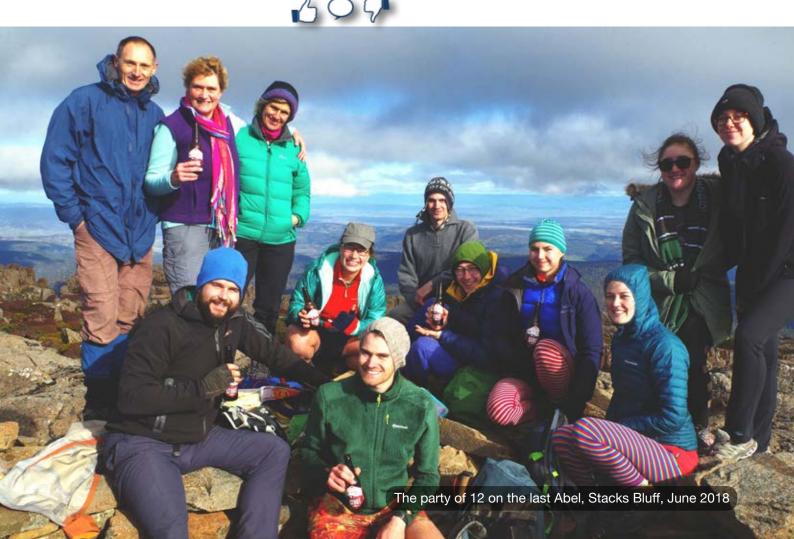
A lot of people have asked me what I will do next! It is understandably a large chapter of my life that has been dedicated to Abel climbing, and now it is closed. I'm already onto round two of the Abels (this one may take me several decades), but there is also a large list of places I would love to go and visit, both in Tasmania and abroad. My next goal I am working towards is a year or so of bicycle touring with my partner starting in mid 2019. The great adventure of life is never over.

Undertaking the Abels has taught me a lot about Tasmania, its people and history, and myself. I am so thankful to call such an impressive little island my home, and cannot express my love for it's wild places adequately. These places have an ancient and unique history, and it is crucial that they remain wild. Visiting them gives me hope for the future.

Read all about my adventure on my blog http://abelzane.blogspot.com/



New River Lagoon and the south coast from the summit of Precipitous Bluff, October 2017



# Triglav Lakes, Slovenia A spectacular and stormy adventure Neja Fidler Pompe



To be fair, May was not the best month for hiking in terms of good weather. I had so many plans yet realised so few (come check my Facebook for more adventures). Thankfully, sunny and warm June is here, which started off with the bonus that May had left behind - plenty of water and lush vegetation. So, if there's ever the right time to do the Triglav Lakes trail, then it is definitely now. Hear my story.

As part of our carefully planned annual tickets to freedom (read: weekends without

the kids), my husband and I chose a day trek from Lake Bohini starting from the Savica Waterfall, crossing

That means walking for 25 kilometres and climbing about 1800 metres on the first day ...

the steep slope of Komarča and then off to the lakes towards Prehodavci. We would return to spend the night in the Komna Hut and then finally head back down to Lake Bohinj the next day. That means walking for 25 kilometres and climbing about 1800 metres on the first day, and 5.3 kilometres and 867 metres descent on the second day. If you throw in two bonus thunderstorms, you've got a pretty decent adventure in the mountains like we were headed for!

First thing first, our hike began at 8am on Saturday by the Savica Waterfall where we strapped on heavy backpacks. Damn math and the puzzling riddle of how two dozen things, each weighing a few grams, possibly sum up to 12 kilograms! We followed the signs to the first lake that day, the Črno jezero (Black Lake). If you decide to follow our steps, make sure you start an hour earlier to avoid the heat. That said, we exited the south-facing Komarča Wall completely sweaty, so our first stop by the Black Lake 15 minutes later was spent drying our T-shirts and backpacks in the sun beside the lake. No complaints though.

Then we were off to traverse the remarkable kingdom of high-mountain lakes underneath the towering steep walls between Lake Bohinj and the Trenta Valley. Dvojno jezero (Double Lake) is next, two magnificent interconnected lakes, coloured somewhere between intense green and emerald green.



With altitude the trail from Double Lake to Prehodavci gained more and more snow and the forecast afternoon bad weather slowly started building in heavy black clouds. In fact, the weather above the tree line is predictably nasty and afternoon lightning and thunderstorms are the norm. By the time we reached Veliko jezero (Big Lake), also called Lake Ledvica (Lake Kidney) because of its shape, there was a mostly cloudy sky and wind. However, we stuck to our original plan to hike all the way to Prehodavci since if there's a thunderstorm we could always hide in the winter room in the otherwise still closed Zasavska Hut.

In Australia, remote bush huts have several origins. Some were built by pioneers, ... the biggest high-mountain hut in Slovenia, Triglavski dom na Kredarici, sleeps as many as 341 people.

graziers and miners, like Four Mile Hut at Kosciuszko National Park. Some were built for bushwalkers, like Cleve Cole Hut on Mount Bogong and the Overland Track huts. Some were part of major works, such as Schlink Hilton in KNP. Older huts are mostly small and often need repairs. The biggest Australian huts are those on the Overland Track, which sleep about 20 people.



The Double Lake Hut was closed

Bushwalkers are encouraged to carry and use a tent.

By contrast, in Europe the weather can be quite poor at times, and huts are viewed as essential. Some have room for 1-200 people, while the biggest high-mountain hut in Slovenia, Triglavski dom na Kredarici, sleeps as many as 341 people. When open, usually between the end of June and the end of September, there is always a resident manager, who you can call to book a room in advance. Costs vary between huts, but on average about 50 Euro (A\$78) per person for a one-day stay, including meals and drinks. Private rooms either have four or two beds. while the toilet and sometimes a shower is usually shared. A hut that sleeps 341 people is mind-blowing!



With the Zasavska Hut within sight a few hundred metres and 30 minutes climb away, it started raining lightly. Since it would have taken us at least an hour to get to the hut and then back to where we were then, and since that side of the sky looked far scarier than where we had come from, we decided that the smartest thing to do right then was to run back down towards the Double Lake and leave the storm behind. We didn't escape the rain though, and arrived there a bit wet.

We had just sat down on a bench in the sun in front of the hut by Double Lake when we heard the first crack of thunder, forcing us to keep going towards Komna Hut and push the pace even more. The thing is that the trail from Double Lake to Komna is below the tree line and offers multiple wide and deep cracks in the walls next to the trail, which can serve as temporary shelters. And so there we were, running away from the epicentre of the thunderstorm, which was moving quickly in the direction from Komna towards the Triglav Lakes Valley, but lightning hit somewhere close by and all of a sudden we found

ourselves in the middle of a hailstorm. We hid in a small cave underneath a rock wall and waited for the worst to pass.



Neja is an adventurer, a dreamer, an explorer. A real mountain enthusiast. A blogger. When not on a dusty trail and exploring great peaks, she loves sharing the adventure with her readers. Check out her blog Exploring Slovenia. She is also on Facebook, Twitter and Instagram.

A report of this trip was first published at Exploring Slovenia's blog on 6 June 2018. Check out the stunning photos.



# Aussie FreezeFest One: Challenge Accepted Tim Vollmer

The gauntlet had been thrown down, and the challenge had been accepted by a handful of hardy souls - to go wet canyoning in the absolute depths of winter - and so Aussie FreezeFest was born. The canyon sections were short, but the abseils were attractive Tim Vollmer

Julie had been trying for a while to get some interest in a local version of what has become an institution in the US, but for some reason people kept coming back with silly comments like "canyoning is a summer sport" and "you'll all freeze to death". Valid points, I suppose, but the story of human evolution has always been about pushing the boundaries; what doesn't kill you only makes you stronger and all that jazz.

FreezeFest has become huge in the states, where the "bad idea that caught on" has grown in a decade from four people in its first year to 78 participants this time round. And sure, the Yanks might get snow and ice in their canyons, but we had a trick or two up our sleeves to up the ante and claim some national pride. And so the date was set the weekend in the very middle of winter.

Despite the invitation being put out far and wide, in the end there was only a small group keen (or stupid) enough to take part, with a total of seven hardy canyoners entering the icy slots over the two days: Julie Burton, Tim Vollmer, Joshua Hill, Drew Morcom, Melissa Freer, Peggy Huang, Todd Harford and Scott Moores.

Our plan was to ease ourselves into it, spending the Saturday doing a couple of canyons with deep but short wades to get acclimatised, before going for a fully wet canyon, involving multiple icy swims, on the Sunday.

As we drove up to Mount Wilson in the Blue Mountains on the Saturday morning we were met with clear blue skies and radiant sunshine. So much for FreezeFest, I thought to myself, more like Luke-warmFest.

When we got out of the car, and the first icy blast of wind hit us, I started to lose some of the cockiness.

We set off towards Wotta Canyon, a tributary of Birrabang Canyon, through attractive bush and open mountain heathland. Eventually we turned off into the valley — a little past the proper point — bashing our way down to the creek. Shortly after this it began to drop, carving a waterfall between two rock pagodas.

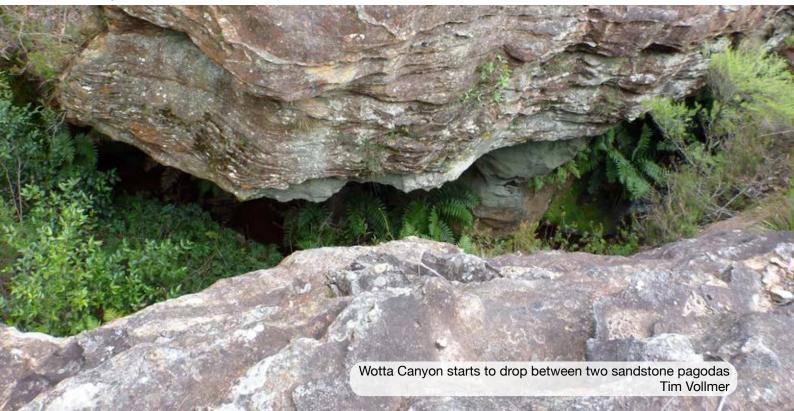
We scrambled around this first obstacle,

making our way down into the narrowing creek. Soon we were at the first drop that had to be abseiled. It was only short - a few

... the story of human evolution has always been about pushing the boundaries ...

metres - but it went straight into a deep pool.

Harnessing up, no one was particularly keen to go first. One by one we dropped in, wading neck deep a few metres before clambering up onto a rock shelf. Holy crap was that water cold! The second half of the abseil was dryer, for which we were all very thankful.



Standing at the bottom of the drop one member of the group was already feeling the cold, so some warm clothes were pulled out of dry bags and the first of countless changes was made. In the end two people insisted on moving between wet and dry clothes for each deep pool.

Wotta isn't much of a canyon, so before long we were out of the constriction and warming ourselves up by picking our way through a forest of fallen trees. I can only imagine they were all brought down by that huge storm a year ago, because I don't think I've even seen a canyon or creek anywhere with so

Harnessing

was particularly

keen to go first.

up, no one

much timber blocking the way ahead.

Finally, we reached Birrabang Canyon at a very attractive creek

section, following it a short way to a point where we would exit on the other side. We only came to one deep pool, and it could easily be avoided on ledges to the left.

We warmed up on the exit, pushing up to the ridge top where there was finally some sun coming down. Unfortunately, there was also plenty of wind.

Along the ridge we walked to our turnoff into Better Offer Canyon — a distinctive rock pagoda. We decided to pause here for

lunch, finding a small area behind it that had sunshine streaming onto it and was nearly completely in the wind shadow. When we moved to admire the

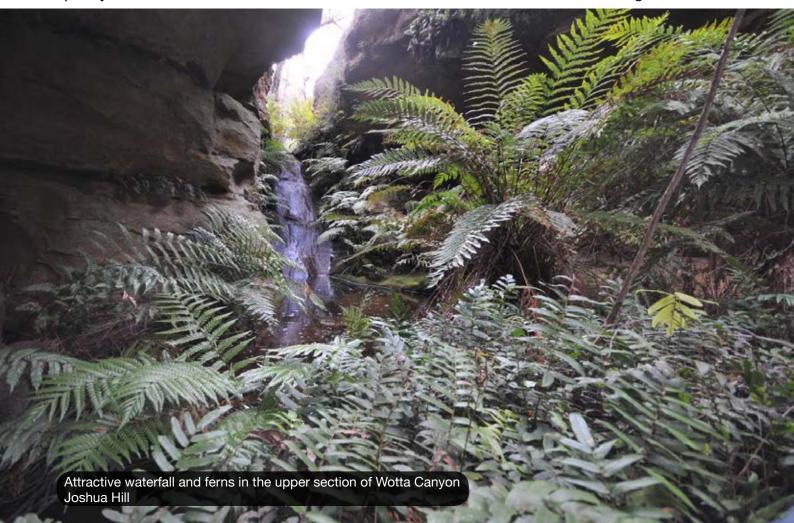
When we moved to admire the views we were almost blown away.

views we were almost blown away.

Into our next canyon we went, scrambling down a small waterfall and along the creek before an impressive narrow slot cut away below us. This abseil was stunning, but best of all we were able to finish just above the water and walk around some ledges.

As we continued there were some short but attractive constrictions, and a few more wades to deal with. Then we came to a point where the creek plunged down into an impressive gorge just before it joined the Grose Valley.

We paused to explore a shale ledge in the sandstone cliffs that took us out along the side of the massive gorge, with views over the chasm and the two remaining abseils far



below. Unfortunately, the ledge ran out just before the corner where we would have been able to look out into the magnificent Grose Valley.

The next drop was stunning — and best of all dry — with the winter light illuminating

the rock on each side with different colours. One final abseil, where Drew demonstrated a very

The next drop was stunning with the winter light illuminating the rock on each side with different colours.

unconventional technique, and we were done.

Down the boulder chute we went, then around under the towering sandstone cliffs on the left, enjoying glimpses through the trees of the amazing Grose gorge.

Our original plan was to finish by heading up Birrabang Canyon — which can be reversed - but with the short winter days we decided it was best not to. Instead we followed the creek a very short way, then went up a stunning pass onto the pagoda-tipped ridge where we were greeted with incredible views over the surrounding area.

The wind was still howling, so we didn't dawdle for long (there was no temptation to do any naked star-jumps). An easy ridgewalk took us to Bells Line of Road. We still had a couple kilometres back to the cars and quickly discovered just how narrow the

shoulders are on this section of road and just how fast the traffic goes. We were most relieved when we were finished.

Arriving at Mount Wilson just on dark, we were greeted by the sight of a raging camp fire in the Cathedral Campground. Julie was standing with a couple of people, so we thought some others must have taken up the challenge. It turned out they were a group from the University of Technology Sydney Outdoor Adventure Club doing a bush survival course, but they still provided some great company through the night.

There was a plethora of food and drink, and we kicked on well into the wee hours before stumbling into tents (despite the now even colder and stronger wind) so when a few new FreezeFesters turned up at 8.30 am they were greeted by snoring.

A few people from the first day had to head off, and Julie was unfortunately not feeling up to the climb out of a canyon just after finishing her latest round of cancer treatment, so there were only five people ready to take the challenge.

After some discussion we decided on Why Don't We Do It In The Road (Serendipity) Canyon. We wanted something wet, obviously, and it provides several very chilly swims. But we also wanted to be sensible and do something shorter, with the ability to bail early if we had to.



We weren't all going to do it easy. While two members of the group filled their packs with thermals, wetsuits, beanies and other warming attire, the remaining three made a pact to really up the ante by doing it nude.

Now let me paint the picture of just how brave (or stupid) we were. I checked the

data from the nearest weather station when I got home. It recorded that it was under 4 °C when we set off - the

We weren't all going to do it easy.

overnight low had been 2.3 °C — and the top temperature of the day was 6.4 °C.

But the wind chill — which was substantial is what made things really interesting. With the wind speed sitting just over 30 km/h, and gusts of double that, the apparent temperature never got above zero, spending the day between -9 °C and -0.6 °C. Given how cold the air temperature was, you might think the water would feel warm by comparison, but I can assure you it didn't!

We set off along the fire trail — still fully clad because of how cold and windy it was only stripping off when we hit the track that started to take us downhill out of the coldest of the air.

The first couple of absells were great — nice and dry drops beside attractive waterfalls - so we didn't feel the cold at all. It meant there was plenty of time to pause for photos and to enjoy this attractive upper canyon section.

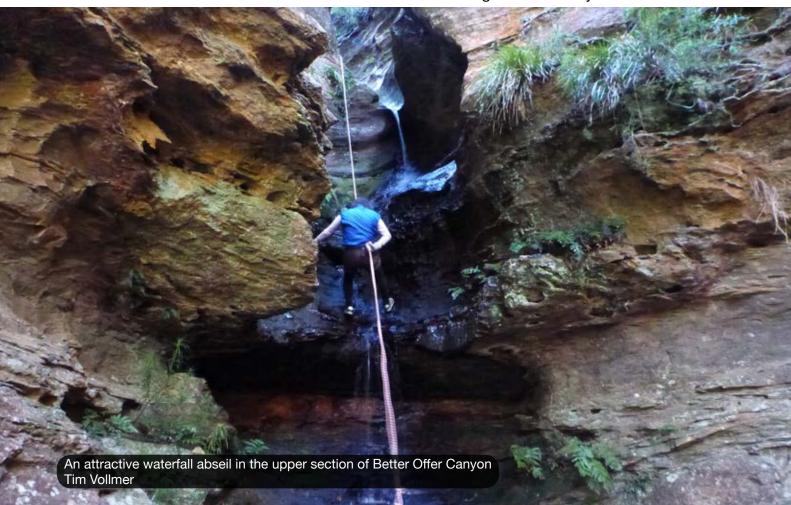
Down the creek we went, wading at points, but mainly staying dry. The ferns provided a pleasantly tactile feel on our naked skin. This section went on for some time, and all the scrambling meant we were nice and warm.

Then we hit the main constriction. Pausing on some boulders, we looked down into the dark chasm below us. It wasn't

Given how cold the air temperature was, you might think the water would feel warm by comparison, but I can assure you it didn't!

deep, but the abseil meant enduring the spray of the waterfall, squeezing between a wet log-jam, then jumping into a deep, dark swim.

It was at this point — while we still felt warm - that Joshua decided to throw down his expletive-laden challenge to the yanks to take on the nude FreezeFest idea. Lucky he did it now, because a few swims later we were feeling far less cocky!



There were a couple more abseils, some more swims, a narrow canyon section which we bridged (and would have swam had we not been completely frozen). Before long we were near the end.

By the final abseil, which drops into a deep pool with a long swim, I was shivering uncontrollably. Even the two guys in the warm gear were really feeling the cold. We didn't muck about, just wanting to get through, so much so that Drew forgot to pull the rope down and had to swim back upstream to retrieve it.

As the canyon ended, at the junction of the Wollangambe River, we were ecstatic. It had been an absolute blast! But we couldn't really enjoy it until we were warm again, so we raced along the narrow ledge until we found some sunshine on the climb out.

As we reached a flat, sunny slab of rock the wind hit us, so we backtracked a couple of metres and huddled in the sunshine to warm up. Off came the wet clothes (for those that had wet clothes) and on went some welcome warm, dry clothing for the walk out.

By the time we were back at camp the memories of the icy water were so faded we were discussing trying to squeeze in a second nude canyon to really maximise our fun, but the call of the fireplace at the

Imperial Hotel along with the deteriorating weather convinced us otherwise.

Our first FreezeFest, while small, had been wonderful fun. Hopefully we will see more people willing to give the idea of mid-winter wet canyoning a go next year.

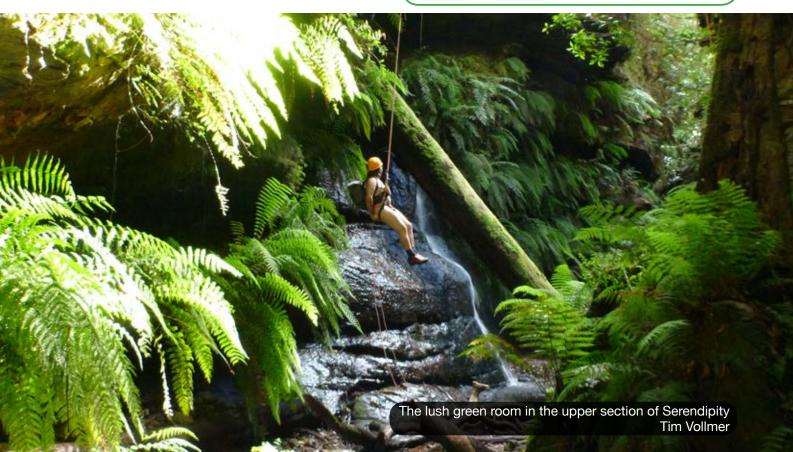
As for the nude winter canyoning part, FreezeFest has always been about bad ideas that catch on, so perhaps we'll see a lot more goose-bump-covered-purple-colouredfrozen-canyoner-flesh next year!

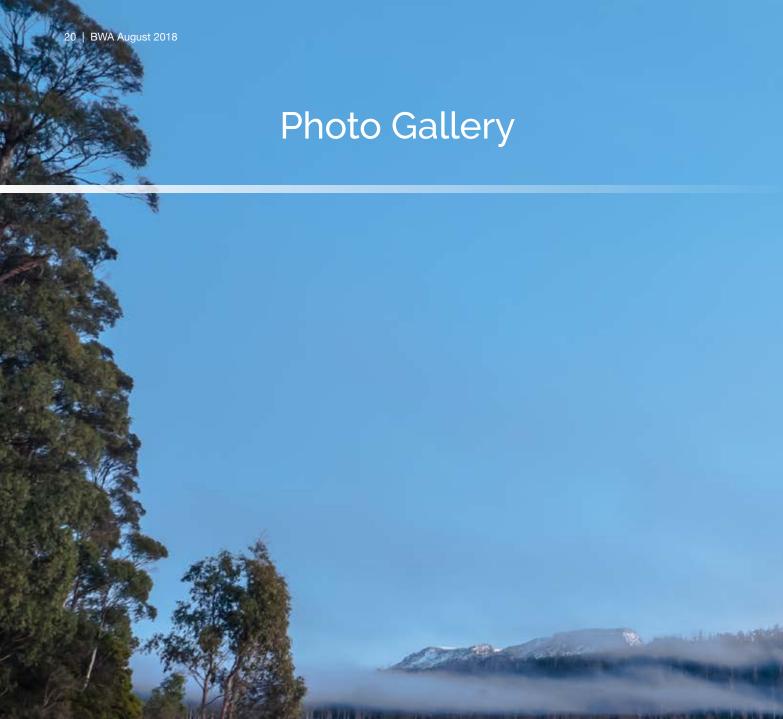
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Tim Vollmer is part of the team who have just set up a new online forum for Australian canyoners.

Dates for the next FreezeFest, in winter 2019, have already been set. If you are interested in joining in, keep informed of the details.







## **BWA Photo Competition**



### Landscapes August 2017

#### **WINNER**



Buttaba sunrise landsmith

Just down the road from where I live there's a wonderful little park or nature reserve - I've never ascertained which it actually is. Still, it's a special place to view the sunrise from among the trees looking out across Australia's largest salt water lake (one with water in it always that is).



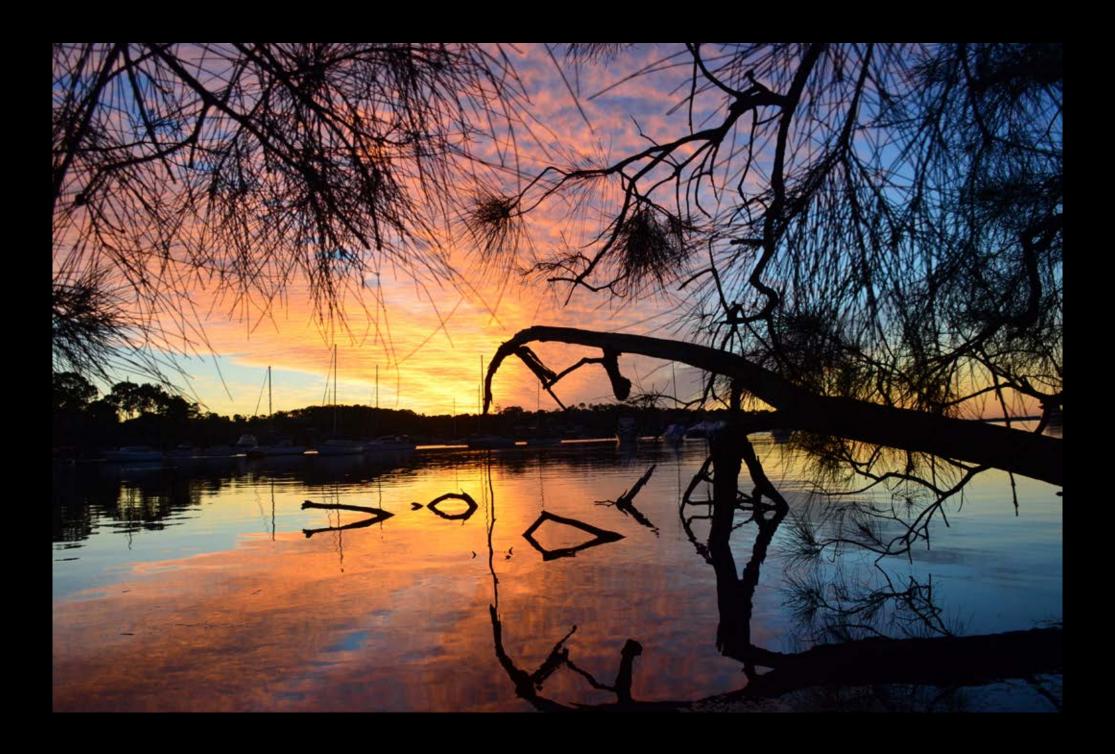
Quite remarkable North-north-west



Landslip Brian Eglinton



Pointing the way home John Walker



### Non-landscapes August 2017

#### **WINNER**



Grandiose forests Snowzone



Coastal sedge North-north-west



Native pea landsmith



Heath Banksia in Muogamarra NP Lorraine Parker



Ground patrol Brian Eglinton



I've seen the light ... John Walker



### **Tasmania** August 2017

#### **WINNER**



The sea is calm tonight ... North-north-west

Being antisocial means popular tourist sites are usually offlimits, although if you get the timing right they can still be worthwhile. Late evening, after everyone else had gone, at Remarkable Cave. Just me and my tripod and camera on what were, on that coast, very calm conditions. Pity, really a decent swell might have made it more interesting.



### **Other States** August 2017

#### **WINNER**



Sunshine above the West Ridge Snowzone



Sculpted by nature John Walker



View from Deerubbin landsmith



Lofty stream Brian Eglinton

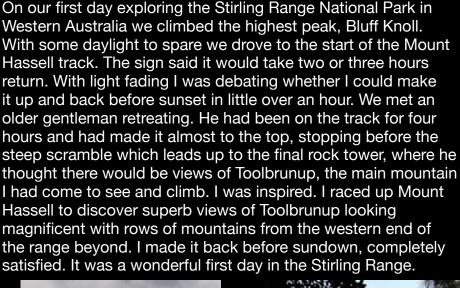


### Landscapes September 2017

#### **WINNER**



Toolbrunup from Mt Hassell **Ben Trainor** 





Hanging Rock and Baltzer Lookout landsmith



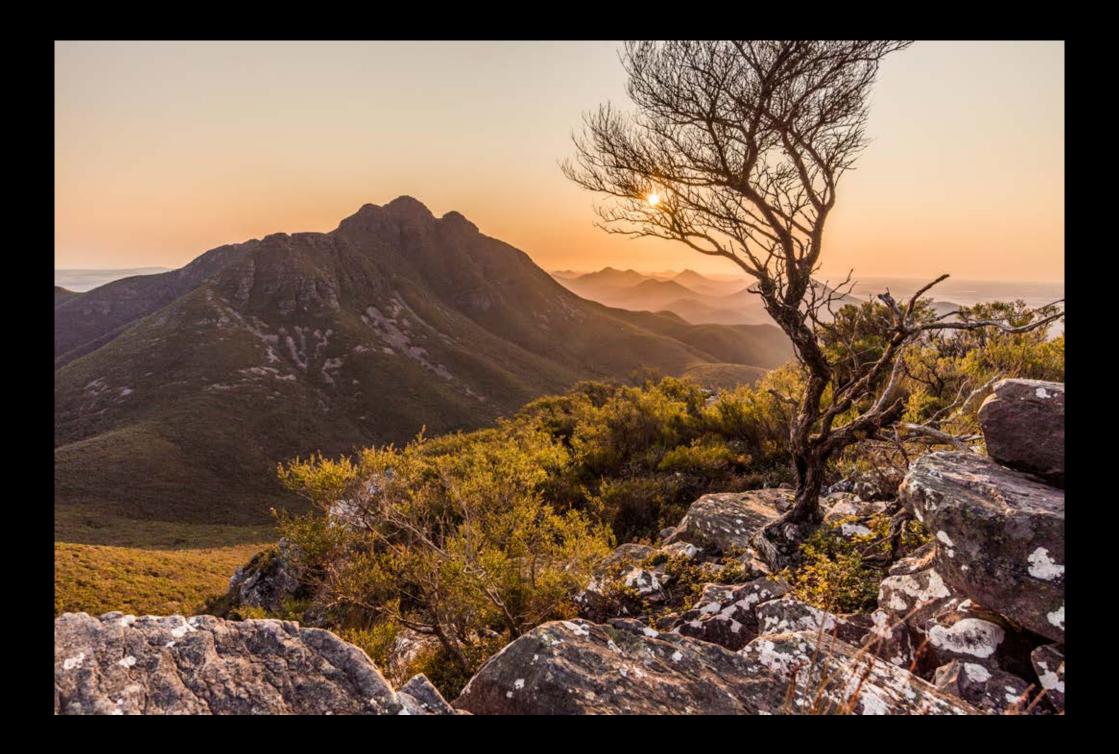
More on the way North-north-west



The Long Creek Traverse John Walker



Sturt Gorge Brian Eglinton



### Non-landscapes September 2017

#### **WINNER**



Eastern Spinebill landsmith

There's a lakeside park just down the road from where I live and, at the back of a small brick shed used for water filtration, there's a healthy grevillia - and don't the birds love it! I often go down with my birding lens and tripod just trying to get a better shot than last time and, on this occasion, managed to get a rare hovering shot of the spinebill mission accomplished!



Sundew Brian Eglinton



Orchid after a shower, Torndirrup NP Ben Trainor



Fair warning ... John Walker



### Tasmania September 2017

#### **WINNER**



**Ghostly fingers** North-north-west

You take a long drive followed by an evening ramble to loosen up the joints, and are suddenly presented with a very special sunset. From the Lake Spicer Track, watching the cloud slowly engulfing Murchison and its foothills.



### **Other States** September 2017

#### **WINNER**



Dunns Swamp, Ganguddy landsmith

The main campsite is set amid sandstone rock formations, the style of which can be viewed in many places around the park and occasionally there's an odd-shaped tree to add to this unusual landscape. The rock formation are colloquially known as "pagodas" and create much interest among geologists and photographers.



Toolbrunup's finger Ben Trainor



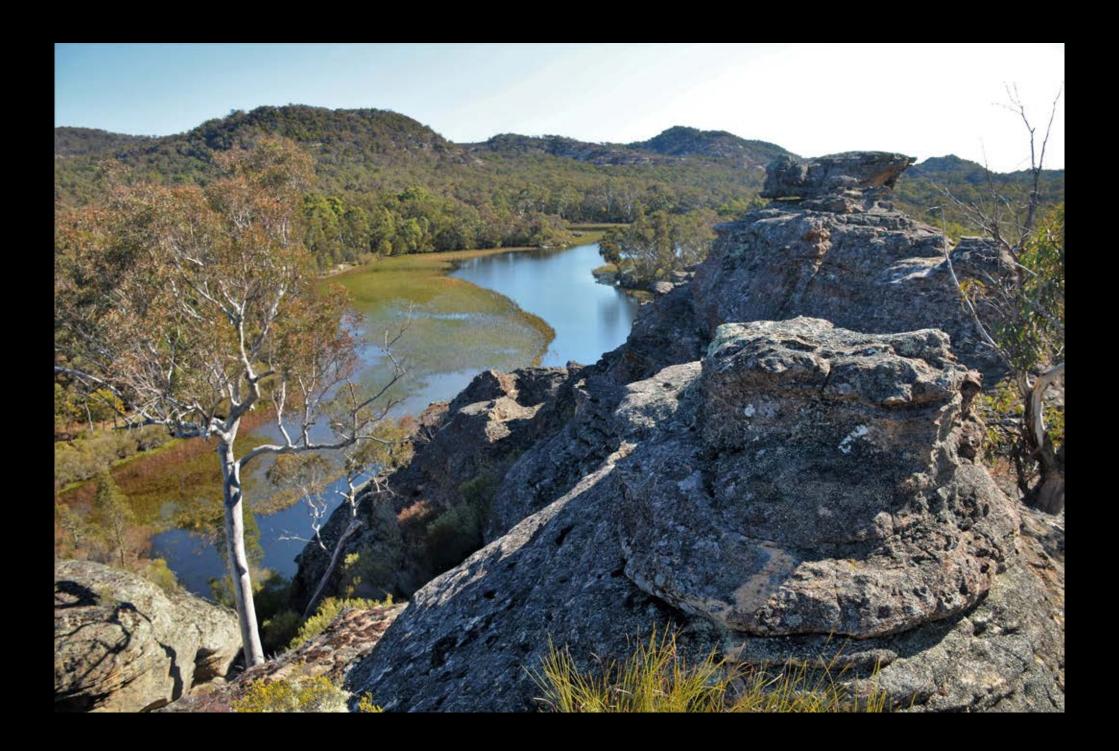
Second Falls Brian Eglinton



From the ashes rise the stoic Xanthorrhoea John Walker



Open feeling Better Offer AJW Canyon2011



# Pack Hauling Daniel Mitchell



### When might you haul packs on a bushwalk?

You're out on a bushwalk, it's a beautiful day but has been raining, then the only way to continue is through a narrow slot, or down a slippery section of rock and logs, or to climb a steep exposed section. Scrambling over rock and climbing up or down can be difficult enough at times. Sometimes it's impossible to move up or down while carrying a pack.

Pack hauling can make it easier or possible to negotiate an obstacle. The important question is "What is the risk and the

consequence of attempting to negotiate the obstacle while wearing a pack?" It may be unlikely that you would slip and fall, but if you

What is the risk and the consequence of attempting to negotiate the obstacle while wearing a pack?

did, what are the potential consequences of that slip? Think broken bones, concussion or worse. If you are unable to walk out it would mean organising an emergency evacuation. Let's hope you packed that PLB!

Being free of your pack enables easier use of your limbs. Being our normal size and shape with our usual balance and centre of gravity means we can more safely negotiate an obstacle. Especially if there is risk of overbalancing or if some of the walking party are less agile, less focused or inexperienced walking with a pack.

### Pack passing/human chain

The simplest method is to form a human chain. It can be done solo or with just two people, but the more people involved the easier it is. It also adds a subtle moment where everyone works together to overcome a challenge. To do this, everyone removes their packs. The walkers position themselves across the obstacle is stable positions within reach of the next person. Then all of the packs are passed along first, with their owners following at the end. Once everyone is through, packs back on and off you go again.

### Using a rope

If you are out on a bushwalk where you know that you will encounter difficult sections, or you're going off-track to find your own path, it is a good idea to take along a Handline Kit. This can be used for setting up a traverse line, bush-abseil, rigging up a tarp, a gear drying line and also for creating a pack hauling system. A typical kit would include a length of rated rope, a couple of slings and three or four rated carabiners.





Using a rope

Pack passing

### **Knots**

You will need to use a few knots. Some knots are better and safer than others because they are easier to undo and don't reduce the strength of the rope significantly. It is worth practising these too so you don't forget! Always leave some tail (end of rope) so the knot cannot fall apart, usually 10-30 cm.

Some useful knots to learn are:

Bowline or double bowline. An "end of line" knot that creates a secure loop as large as required. Good for going around an anchor point, through several points on a pack, is easy to undo.



Clove hitch and half hitches. Used to tie around a small object such as a carabiner and to add a backup safety feature.



**Tape or water knot**. This is a simple overhand knot with the other end of the tape retracing the first knot. The most suitable choice for tape slings. 10 cm tails minimum.



French and Klemheist Prusik. Used with a Prusik sling to create an autoblock, which is an added feature to grab and backup a rope. Different styles of Prusik grab the rope in one or both directions. The French style can be

moved if still loaded/weighted (but this can also happen by accident such as dragging over a rock).



A classic Prusik knot Animatedknots.com

**Double Fishermans**. Used to create a Prusik sling for the above. Difficult or impossible to undo once it has had a significant load placed on it. 5 cm tails.



Markus Bärlocher via Wikimedia Commons

Munter or Italian Hitch. A simple knot on a carabiner that allows you to control the speed of a descent/ascent, similar to using a belay device. Note that this kinks the rope quite badly.



### Simple haul system

A possible scenario is this. The first person climbs the obstacle without a pack, taking with them the handline kit. Look for a suitable anchor such as a healthy tree trunk greater than 100 mm diameter with solid roots, a

solid rock over which a sling can be passed, or a chockstone around which a sling can be threaded. Put a sling around the anchor using a Tape Knot and clip on a carabiner. Run one end of the rope through the carabiner and lower it to the person below. They secure everything in the pack and tighten all the straps to minimise snag points, then tie the rope to the pack. It is a good idea to use the haul loop which looks like a handle at the top between the shoulder straps. If possible loop it around the shoulder straps also to spread the weight over more than one point to avoid damaging the pack.

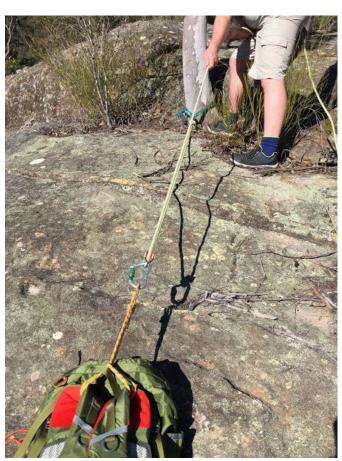
You can now pull on the tail of the rope to raise the pack. It is a good idea to hold both strands of rope when adjusting your hand position. This is easier to hold and prevents the rope slipping.

Another simple method if the rope is long enough is to pass the loose tail to the person below. This way both people can share the effort. The person above pulls up on the weighted rope while the person below pulls down on the tail simultaneously. If just the person at the top is hauling, they too can hold both the weighted rope and the tail while doing a push pull movement.



Simple looped rope

So by setting up a fairly simple system, there are a few ways you can operate the pack haul. If you were lowering the pack past an obstacle, you would set up a similar system with a person descending first to then untie the packs as they arrive. The packs would be lowered with the aid of a belay device, or by using the Munter/Italian hitch or other methods to control the descent.



Looped rope with a pulley on pack

### Things to watch out for

- Avoid standing directly below the pack being hauled, in case it drops or something falls out.
- Be careful at heights and near rock edges, consider using a personal safety tether.
- The big one to watch out for is the Critical Edge. It's the point on the obstacle or rock edge that the weighted rope is dragging over. This can really damage the rope and scar the rock. It could be avoided if there was a perfect anchor directly above the obstacle, or if you can place a pad of some sort on the rock edge.

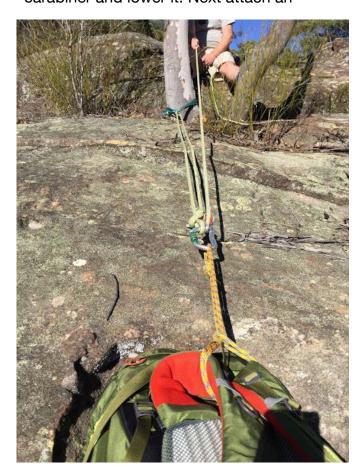
- Tape slings reduce or stop any damage to trees and other anchor points.
- Packs may suffer abrasion or even get jammed on the way up, so choose the smoothest route for your haul system.

By adding in more points at the top of the system you improve the ratio of pull to rise, or the effort required to shift the load. This type of system is where the rope starts to zig and zag between additional points, called a Z-drag or 3:1 and going up to a 5:1 or 6:1 etc. The more returns or zigzags the rope does, the less effort is required to move the load. However, more rope is needed.

### The Z-drag

To set up a Z-drag or 3:1 haul system, choose a suitably strong anchor. Attach a sling around the anchor and clip on a carabiner as above.

Pass one end of the rope through the carabiner and lower it. Next attach an



Simple Z-drag (no Prusik safety or reset)

autoblock to the rope that is to be weighted. The classic way is to use a Prusik or friction knot that wraps around the main rope and prevents it moving in one direction. Here I would use a French Prusik and a second carabiner clipped to the sling beside the first carabiner.

Next take the loose tail of the rope back towards the rock edge. Here another type of Prusik (Klemheist) is tied to the weighted rope and clipped on the rope tail with a third carabiner. When the rope is pulled up from here, the lower Prusik grabs the rope and raises the load. The top French Prusik is bumped against the first carabiner and is not grabbing the weighted rope yet.

When the first pull is finished, carefully lower enough rope backwards for the French Prusik to grab. Keep hold of the tail and slide the lower Klemheist Prusik back down the weighted rope towards the edge and repeat the process until you have raised the pack to within reach.

In place of Prusik slings, other devices can be used such as a Petzl Tibloc or other brands and device models that have the same effect of letting the rope move in only one direction. Pulleys can be added to the carabiners to allow the rope to move with less friction at each point of the zigzag.



Full Z-drag

My personal handline kit consists of:

- 8 mm rated rope, 20 metres, 770 g
- Mad Rock Hulk alloy locking carabiners, 3 or 4 at 79 g each
- 25 mm tube tape for slings, 2 and 3 metres, 220 g together

To make this into a haul kit I add:

- Petzl Oscillante pulley x 2 at 44 g each
- Short and medium Prusik slings, made from 6 mm rated rope, 75 g together

The weight of all this gear can start to add up quickly! My kit above will total 1.5 kg when put in a dry bag. This is not a problem if it makes your bushwalk journey easier and safer, with the kit shared around the group if needed. Additional tape slings can also be used to make improvised harnesses for people, but that's another story.

### Advanced and live loads!

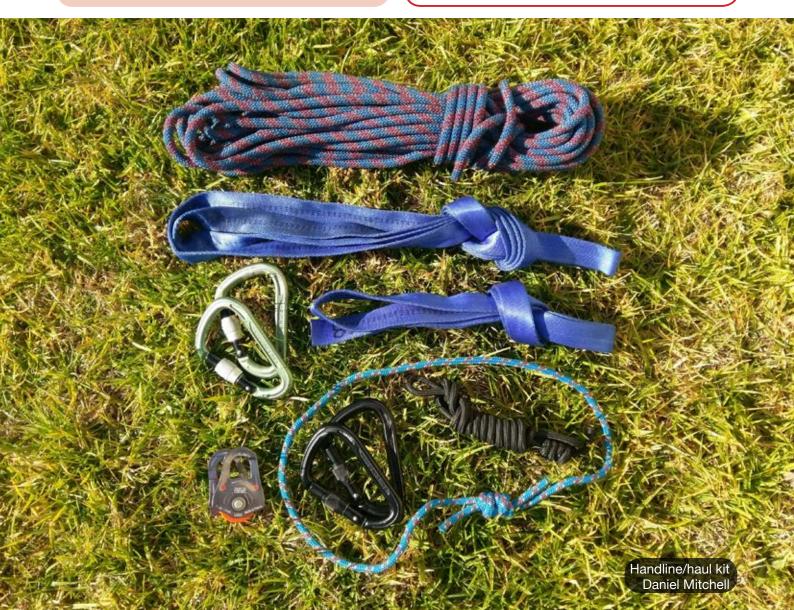
NOTE: If a haul system was used to support a live load (a human) then there are more considerations that must be included. These would be ensuring the suitability of the anchor points chosen, using properly rated equipment, using locking carabiners loaded in their strongest direction and a belay or descending device. Such a system includes having backup features to minimise or stop any chance of a fall and shock load on the person and the system as well as having no single point of failure. Seek professional training before attempting any live load rope activity.

### More information with pictures and explanations of knots

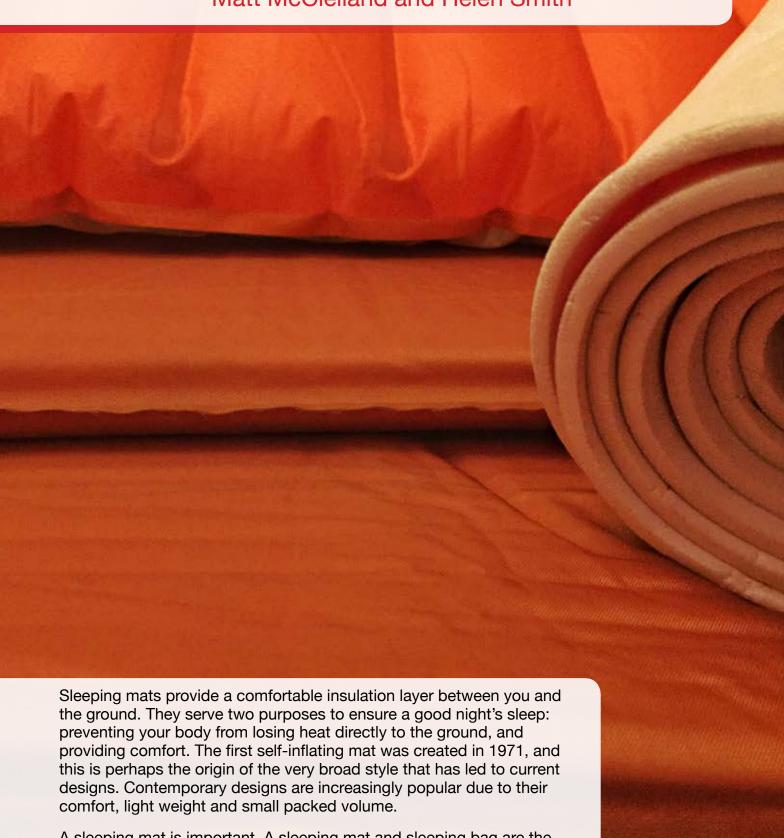
See Oz Ultimate, Vdiff and Animated knots.



Daniel is a keen bushwalker of just a few years and is studying to be an outdoor guide. He is always looking for new information and became interested in ropes and abseiling when doing a guide canyoning course.



# Sleeping Mats Choosing, using, caring and more Matt McClelland and Helen Smith



A sleeping mat is important. A sleeping mat and sleeping bag are the main things that keep you comfortable and warm at night inside your tent. Because the ground is colder than your body and is very conductive, when you lie on the ground, heat quickly goes from your body to the ground.

### A sleeping pad or mat?

I spent more time thinking about whether we call these things sleeping pads or sleeping mats than actually writing the article, silly I know. In books, the term sleeping mat is much more popular than sleeping pad. On websites worldwide and in Australia there's a close match. In Google search term used in Australia term sleeping mat is usually used. Worldwide and in the USA sleeping pad is found more often. I am a fan of using the term bushwalking rather than hiking in Australia, but for a bit of gear like this I am not so attached. For this article I have run with the term sleeping mat. I feel it is more self

explanatory and a term we are more used to.

A weird side note - worldwide the searching of

This transfer can be slowed with insulation between you and the ground, like a sleeping mat.

information about sleeping pads and mats seems to happen much more in the country's summer time. This is much more pronounced then searching for hiking, bushwalking, and tramping etc. I wonder if people are more likely to buy gear in summer? I digress.

### Selection in the shop

Selecting a sleeping mat is an important decision - it's one of the main things that will keep you comfortable and warm at night. When you lie directly on the ground, because the ground is normally much colder than your body and very conductive heat is quickly transferred away from your body to the ground, so you get cold. Sleeping bag insulation only works when it is expanded, so sleeping bags provide essentially no insulation between you and the ground.

Heat is a form of energy, and like all forms of energy it cannot be destroyed, but it can be moved or changed into different forms. We tend to lose heat from it being transferred from us to something else and this can happen in three main ways.

Thermal conduction is the transfer of energy (heat) between two substances with temperature differences that are in direct

contact with each other. You feel this when laying on a cool rock, where parts of your body touching the rock feel cold as the heat moves from you to the rock. Heat can be transferred to your body, such as when holding a hot drink. This transfer can be slowed with insulation between you and the ground, like a sleeping mat.

Convection is the transfer of heat through the movement of fluids (gases or liquids) from a warmer spot to a cooler spot. Cooler liquid or gas then replaces the warmer liquid or gas, with a continuous circulation pattern. One example is where the earth's surface is warmed by the sun. The warm air rises and cool air replaces the warm air. When sleeping in a tent, there are small convection currents in an air mat. These currents can be slowed with small air chambers and other barriers ... You can see convection above a campfire with embers and smoke lifted high above the fire.

Radiation is a heat transfer with no contact between the heat source and the heated object. Heat can be transmitted through space and some objects by thermal radiation. Examples include heat from the sun and a

domestic radiator. Radiant heat can be reflected with a mirror or absorbed into another material that will then heat up, where it moves again by conduction or

Selecting a sleeping mat is an important decision - it's one of the main things that will keep you comfortable and warm at night.

convection. Shiny silver coverings on sleeping mats can help reflect radiant heat back to you.

Everyone is different when it comes to preferences for sleeping mats, so make sure to try out a few different mats before making a decision. For those prone to pressure injuries, to ensure that your skin copes, test a sleeping mat at home before taking it on a bushwalk. Similarly, for people with back or neck pain, testing at home can help ensure the best pick for your walk.

Following are some examples of different types of sleeping mats with a comparison between various features.

Туре	Air filled		
Description	Air-filled mattresses that the user manually inflates before use. These tend to be thick and comfortable.		
Examples	Sea2Summit Ultralight Sleeping Mat	Nemo Nomad Air 30XL sleeping mattress	
Pros	Small, lightweight, comfortable, compact. Customisable firmness based on how much air is put in. Can be very good insulator depending on style.		
Cons	Expensive. Can make loud crinkly noises depending on the material used. Can be punctured or rip, and therefore a real possibility of leaks. Not all have great insulating because of the large open-air spaces that circulate cold air directly beneath the user. Some manufacturers add insulation to the mat to significantly reduce this effect.		
Price	\$100-250		

Туре	Self-inflating	
Description	Self-inflating pads combine the warmth of closed cell foam with the comfort of an air pad. Open cell foam is covered in an airtight, waterproof material. The pad is inflated by opening a valve and letting the foam inside expand, sucking in air. You can add extra air if you want a firmer pad.	
Examples	Therm-a-Rest® LuxuryMat™	Camp mat SI
Pros	Comfortable, compact, excellent insulation. Customisable firmness based on how much air is put in.	
Cons	More expensive and heavier than closed-cell foam.	
Price	\$80-250	

Туре	Closed-cell foam		
Description	Made of dense closed-cell foam that reduces conduction and very significantly reduces convection with the very small cells.		
Examples	Closed-Cell Foam Sleeping Mat	Kathmandu Foam 8 mm Camping and Hiking Mat	
Pros	Warm, light and hardy, tend to last a long time. Cells are water-repellent, so the mat is waterproof. No need to worry about punctures and can double as a seat around the campfire. Low cost.		
Cons	Not as comfortable as thicker pads, stiff and firm. Bulky.		
Price	\$20-120		

### Key features to consider

### 1. R-value

This is a lab-obtained value that conveys the insulating properties of the sleeping mat. The higher the number, the better the insulation. Since the measurement is made about the resistance of a sleeping mat to heat transfer, the larger the R-value, the better it is at retaining heat, i.e., better for winter.

With the lack of standards and labelling rules there is not a great deal of R-value consistency between brands. So take the reported R-values with a grain of salt and think though the style and materials used before assuming one mat is warmer then another.

Insulation type	R-value	Lowest temperature
Poor	2-3	0°C
Moderate	3-4	-7°C
Good	4-5	-10°C
Excellent	>5	-18°C

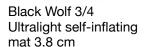
Of course, every person is different and their tolerance to cold will vary with the way they sleep and the sleeping bag they use. The R-values are what the mat can do at its extreme and not loaded with a person lying on it (this reduces insulation). Select a mat with an R-value that is higher than you expect to have a comfortable night.

### 2. Size

Sleeping mats vary in size by their thickness, width and length. Generally they are about 180 cm long, and about 50 cm wide. Thicknesses varies greatly, from about 8 mm for closed cell foam mats. to about 30 mm for self-inflating mats to a very comfortable 50 mm or more for inflatable mats. Some bushwalkers prefer three-quarter or half sized lengths to save on weight. Bushwalkers may use clothes or other material to provide insulation under their feet with shorter mats, but fulllength mats tend to be more comfortable. As a general rule, the thicker the mat, the more comfortable they are and the lower the likelihood of pressure points. For some people, particularly people with

some disabilities, a double width sleeping mat can make the night much more comfortable and mean they are less likely to come off the mat during the night.







Klymit Inertia X-Lite Short Inflatable hiking Mat

### 3. Shape

Some sleeping pads are rectangular, while others are mummy-shaped, following the body's natural shape. For instance, the Therm-a-Rest™ Women's ProLite.



This has the advantage to save on weight due to less material.

#### 4. Surface material

Some sleeping mat surfaces are really slippery, causing your sleeping bag to slide off easily, particularly if you move around a lot in your sleep. Some mats will move on the tent floor. Textured surfaces tend to have more grip and can provide a more comfortable sleep. Too much grip may make it hard to move around. Some sleeping bags have pockets to hold the sleeping mat. If you have this design, then you tend to want more slippy mats to make it easier to get in and out of the sleeping bags pocket. Also think about the noise generated by the material; in a quiet hut or campsite you can drive yourself and others crazy each time you roll over with noisy material.

### 5. Inflation time and chambers

The two factors that affect inflation time are the size of the mat and the type of valve. Some valves transport high airflow volumes, meaning that the mat inflates quickly. It's far more enjoyable to inflate these mats after a long day on the track! And of course, a three-quarter mat will be much faster to inflate than a similar fullsize model. Some mats are self-inflating, while others need to be inflated by mouth. Orally inflated mats tend to be slow and over time can have mould build up inside the mat. To avoid mould growth, use a dry bag pump, as these not only make inflating mats much faster and easier but the bags can also be used to keep gear dry.

### 6. Side rails

Side rails are railings on the side of a mat that make it harder for the user to roll off the mat during sleep. These are not common and I am not sure how much they help.

### 7. Baffles

If this was an English lesson I would say a baffle is something that restrains or regulates, but since this a bushwalking article I will say they are fabric that joins walls and hence create chambers to minimise airflow and the loss of heat through convection. Baffles give

a sleeping mat, sleeping bag or down jacket better insulation. Generally the more baffles the better the insulation. but they also add weight due the extra material. Also, baffle design effects the comfort on the mat. This is probably more of a personal thing, so worth trying out a few designs to see how they work for you.



REI Co-op AirRail 1.5 (\$90)

### 8. Insulation

Insulation has really been covered above. R-value is really a measure of the overall insulation performance of the mat. Baffles play a role in this, but inflatable mats can be partly filled with down or a synthetic insulator as well, helping reduce heat loss through convection and conduction. Also, some will have reflective material to help reduce heat loss through radiation. The value of these vary greatly depends on the overall design and interplay with each type of insulation.



### **Underquilt - for hammock users**

An underquilt is used with a hammock to reduce heat loss to the air under the hammock. Underquilts are made out of the same insulation material as a sleeping bag and hang beneath the hammock. The idea is to create an insulation layer underneath the sleeper that does not get crushed under body weight. Since crushed insulation is far less effective than expanded insulation, keeping body weight off the insulation material provides a far more effective insulation layer for hammock users.

Some hammock users carry sleeping mats

to give them more options. For example if they camp somewhere with no hanging points, they can use a sleeping mat on the ground, where an underquilt would provide very little value. Most hammock sleepers find underquilts

Select a size that insulates well but not so tight that it restricts your movement in the hammock.

lighter, warmer and more comfortable then a sleeping mat in most situations.

Similar to sleeping bags, some of the key features to look out for when selecting an appropriate underquilt include the following.

### 1. Material

The two main material elements to consider for a hammock underquilt are the outer shell, which will be subject to dew and condensation from being out overnight, and the insulation.

The shell of a hammock must be durable and water repellent. Ideally, select a hammock with a material that is nonrip (e.g. Ripstop material) to protect the underquilt from tears. Select materials with some sort of durable water repellent coating.

Just like sleeping bag insulation, underquilt insulation is either synthetic or down. Down has the advantage of a great weight to warmth ratio and compacts well. Synthetic insulation tends to work better if it gets wet and is bulkier.

### 2. Size

An underquilt should be well fitted to your hammock for maximum insulation. Size differences in underquilts generally relate to the length and width of the hammock, so check that these dimensions match the hammock you typically use. Select a size that insulates well but not so tight that it restricts your movement in the hammock.

### 3. Weight

Weight is obviously a factor for comfort in overnight hiking. Underquilts range in weight from as light as 210 grams (e.g. Thermarest Slacker Hammock Warmer) through to 400 grams (e.g. the Revolt) and more.

There is generally a trade-off with weight - the lighter it is, the more expensive it is! Light can also indicate that the temperature rating is not as high as heavier ones made from same materials, so make sure to check this out also.

### 4. Rating

Hammocks work well in a broad range of temperature conditions and follow a similar temperature rating scheme to sleeping bags. Seek an underquilt that is rated to below conditions you'll typically be using it in.

Some examples:



Thermarest Slacker Hammock Warmer



Flying Tent Underquilt 150 dark anthracite



Thermarest Slacker Down Underquilt

### **Check and pack**

Whether you have an ultra-light small sleeping mat or a simple foam mat, it's worth taking time to consider how to care, pack and look after your mat to ensure that it lasts for as long as possible and serves you well. If you are anything like me you tend to just shove your mat and sleeping bag into your pack without much thought, but I have got caught out a few times with a mouldy and a leaky mat. It only takes a few minutes and helps your gear last longer.

### Check

Check the material for wear and tear, top and bottom, and that it's clean and dry. Check that valves work (no hissing when closed and when laying on the mat) and that there are no punctures (check it stays inflated).

### **Pack**

While it's tempting to strap a sleeping mat to the outside of a pack, as seen in movies and done by other walkers, terrain and weather determine if this is a good idea. If you are expecting wide tracks, little obstructing

vegetation and no scrambling, then the chances of damaging sleeping mat are low. However, if you're expecting even a

When setting up your sleeping mat, over-inflate it slightly.

small section of dense bush, narrow tracks or pushing packs over rocks, then there's a good chance the mat will suffer quite a bit of damage when strapped outside. Try to have all your gear inside your pack.

It's always best to have everything inside the pack, thus keeping the items clean, dry and secure. Inflatable mats are especially susceptible to puncture. Also, some modern mats are quite small when deflated, and there should be room in the pack.

If the only feasible way to carry your sleeping mat is to strap it to the outside of your pack, please do not wrap it in plastic bags. These just get shredded, and plastic will fall onto the track, contrary to leaving no trace. The least worst position on the outside of your pack is the back of your pack where there will be less contact with vegetation and rocks than other positions. You can place it in a heavy duty dry bag to keep it dry and clean.

#### Use in the field

Treat your sleeping mat gently. Avoid using it on sharp surfaces, always make sure there is a groundsheet or tent footprint down first. Choose the smoothest surface to camp on, and remove surface rocks or sticks that may cause damage to the mat.

Expect your sleeping mat to get a bit dirty in the bush - this is something you can deal with at home. However, there are a few things worth cleaning up immediately if they come into contact with a sleeping mat. Insect repellent with DEET can damage material, and sap from trees can stick to material and be hard to remove. Wash off with a cloth soaked in water. If the sap is hard to remove, consider using alcohol wipes from the first aid kit.

When setting up your sleeping mat, overinflate it slightly. When you lie down, release air until the mat feels super comfortable. Roll on your side and make sure that your hip is not touching the ground. If leaving camp set up for the day, especially in warmer months, release some air or leave the valve open to avoid the mat over-inflating as the air expands in the heat.

### Repairs in the field

While a leaking air mat on a trip can be disheartening, to say the least, it's usually fairly straightforward to fix with a repair kit. Remember, a repair done on a trip doesn't have to be the final one, it's just to make the mat functional until the end of the trip. Even if you don't have patches designed for sleeping mat repairs, you may find that first aid kit tape suffices for the rest of the trip, and you can do a more thorough repair at home.

The first thing is to find the leak. Sometimes this is easy as you can hear the air leak or see a hole. Other times, this can be much harder, especially if there is a tiny hole or a really slow leak. In these cases, it works well to use water to identify the leak (for

If leaving camp set up for the day, especially in warmer months, release some air or leave the valve open to avoid the mat overinflating as the air expands in the heat.

details, see Care and maintenance on the

following page). However, you need to make a judgement: is it worth getting your sleeping mat wet? Are you able to dry it adequately before doing the repair and subsequently using it? If not, given that you have a slow leak, you may be better off just accepting the

fact that the mat will leak a little over the course of the evening. and you need to re-inflate

... self-inflating mats should be stored semi-inflated for good air circulation, whereas air mats should be stored loosely ...

it during the night. This is usually a better option than sleeping on a wet mat, with a repair that needs to be done again and again. However, if you have good sun and warm conditions, and you can dry out the mat, then locating the hole by immersing the mat in still water is helpful. It may be possible to locate the leak with soapy water - bubbles will form. Do this away from water sources.

After finding the leak, let the leak area dry, then clean it with an alcohol-based wipe from a first aid kit. Then follow the patch instructions and glue. Some adhesives need time to dry before applying the patch, curing. In general, make sure that the patch covers at least ne centimeter surrounding the hole, but follow the manufacturer's instructions. Fixing leaks on a seam can be more challenging, so take extra care to patch well.

#### Care and maintenance at home

Back home, use a damp cloth to remove anything that has stuck to the mat such as dirt, insect repellent, or sunscreen. If left on for longer periods, these can cause damage to the material, particularly if chemicals such as DEET are in insect repellent. For stubborn stains, use biodegradable soap. Once a season, completely clean the sleeping mat to remove body sweat and dirt, as they can transfer to a sleeping bag and compromise performance. Follow the manufacturer's instructions for washing. When cleaning inflatable sleeping mats, take care to ensure that the valve is closed; drying the inside is tricky and it should not need cleaning.

After cleaning, dry the sleeping mat thoroughly (but avoid prolonged periods of direct sunlight), and open the valve. Take care to dry both the interior and exterior of the sleeping mat. Interior moisture can lead to mould and degradation of the material. Dry the interior with a hair dryer on a low setting to partially inflate the sleeping mat, then deflate and repeat a few times.

For long-term storage, follow instructions for your sleeping mat; some need to be inflated (e.g. Therm-a-Rest©), while others can be left deflated (e.g. NeoAir©). In general, selfinflating mats should be stored semi-inflated for good air circulation, whereas air mats should be stored loosely and not folded along the same crease lines each time. Choose a cool, dry place that doesn't have extremely hot temperatures.

### Repairs at home

Repairing sleeping mats at home is far easier than in the field. At home you can focus on getting the job done well, with the right gear for long-lasting results.

If you can't find the hole, fill a tub or bath with water, inflate the sleeping mat as much as possible, and look for tiny bubbles to appear from the leak. Another way is to splash water with dish washing detergent or soap onto the surface of the mat. This works best when the location is believed to be known. If you still can't see bubbles, try gently squeezing the mat. Dry the area thoroughly with a towel, and mark the leak by drawing a circle around it with a marker pen or chalk. It is possible to have more than one leak, so keep looking even after you have found the first leak.

After finding the leak(s) follow the instructions in the paragraph above the Care and maintenance at home heading on this page.

This article was written by Matt McClelland and Helen Smith. The article is adapted from the NPA's Bushwalking101.com website and was produced in partnership with Wil dwalks.com.



# Where on (Google) Earth Am I? A humorous reflection

Scott Levi



The payoff for successful navigation, for me, is that moment when the campsite is set and the pain of humping a 20 kilogram pack up a mountain is over. That moment when the tent is up, the mat is inflated, the sleeping bag has lofted, the Jet Boil, Trangia, or, if allowed, the fire is blazing, when the tired but satisfied walkers can finally revel in their shared experience while watching the old bush TV flicker away. At some point the conversation will surely gravitate to how to navigate, a very serious topic in trackless country like our last expedition into the Tasmanian Central Plateau Wilderness area.

You can just imagine the first Australians working on their navigation skills by singing their incredibly sophisticated song lines around that primordial fire with their star map blazing overhead. No need to worry about getting lost if the GPS batteries run out for them. Or bushwalking pioneers like Paddy Pallin and friends poring over ragged topographical maps and maybe pouring a we dram of the hard stuff while speculating about the next day's route.

Up until this expedition into the wilderness I had always been guided by experienced walkers who had the GPS navigation down pat. This time I was the leader, a daunting responsibility indeed. To prepare I spent



Scott: "Ah yes, here we are." Jen Taylor



From Western Lakes to the Great Western Tier Rob Lennon

countless hours on the iPad zooming in on Google Earth looking at the lakes I wanted to walk to and fly fish and finding the huts that we could use as shelter if the weather turned bad. I'm sure this is no revelation to the tech savvy walkers reading this, but, I started to wonder, as I zoomed right in on these locations from a satellite in space. if the latitude and longitude displayed would be accurate. I consulted with my guru, bushwalking mentor and inspiration Matt McClelland from Wildwalks, and always the enabler, he said, "sure, they should be accurate, within about 30 metres, or so", so out came the \$115 hand held GPS and in went the coordinates and our week long walking route and camping spots were set!

My brave companions. Very brave for following me into the wilds armed only with free coordinates from Google! We began south-west of Deloraine at the Western Creek car park, starting later than expected, racing a summer thunderstorm up the Great Western Tier in unusually humid conditions. Jen was really struggling with a pack failure that had her load shifting and swinging back, pulling her off balance every step of the steep climb up the Western Creek track. When the track petered out we had to rely on my DIY GPS coordinates and if my data entry and theory wasn't right we were lost!



"Is that Lake Nameless I spy?" Jen Taylor

With the light fading and lightning and thunder crashing all around us I kept following the pointer arrow on my handheld GPS and with false bravado told my exhausted companions we were "almost there!" While privately thinking I was leading these poor people to their doom. to my amazement the old tin survival hut emerged, built by Norm Whitley, emerged from the dense tea tree scrub 10 metres from where the GPS said it would be (very hard to spot from the satellite image, being just a rust coloured speck in a sea of green). We arrived at our sanctuary near Westons Lake just as the wild storm front hit, with lashing, torrential rain, wind and lightning! We were planning to tent it only, however as the rain and sleet drummed on the roof and walls of the hut we said a huge thank you to the Mountain Huts Preservation Society of Tasmania, Tasmania Parks and Wildlife Service and anyone else who maintains these lifesaving mountain refuges.



Rob Lennon waiting for a trout to rise Jen Taylor

Now, I'm sure, those bushwalkers more experienced than I (and that would be all reading this!) have seen the fatal flaw in my navigation method. All I had were way points with no map of what lay between them. A straight line through trackless country, can lead you off a cliff, into a ravine or an impassable swamp. Luckily my companion Rob was smart enough to buy the topographical maps of the area and Rob and Jen had two PLBs in case of emergency. With a real chance of being bitten by one



Temperate forest near the start of the walk Jen Taylor

of the six big Black Tiger snakes that we encountered along the way, or if I led them astray (far more likely than snake bite!)

I can't tell you how much an experienced Australian ecologist and environmental scientist walking with you adds to the enjoyment. Dr Jen turned a fly fishing trek into a real-life David Attenborough documentary. "Why are those skinks so fat? The ones always on the rocks sunning themselves?" I would ask, "They are the females and they carry live young up here because it's too cold for eggs to hatch." Replied Jen. Or she would say, "That's a white lipped snake." Or "Those are soand-so birds, they nest in the low bushes, there must be a predator about for them to be acting like that." and seconds later a one metre tiger snake slithered across our intended path! Jen's knowledge of the plants was encyclopaedic, her evidence-based information on fire ecology was fascinating, every plant and animal had a story attached, from potato orchids, to tree ferns, to giant cushion plants and the ancient pine trees.



Rob having a break Jen Taylor



"The GPS says it's that way. Follow me," says Scott. Head of the Western Creek track. Rob Lennon

That first glimpse of a lake you are going to camp on is always exciting. To plot these, I just zoomed in to the centre of the water on Google Earth and made that a way point, you couldn't miss. You can also re-enter the coordinates when you get there if you want to mark the way point of that perfect camping spot around the lake shore which can be a fair distance from the middle of the lake method. Pre-trip research is a lot of fun. You can track some of the little connecting creeks on the different systems and mark the larger tarns for exploration and you might even find your own secret spot! It's also interesting to look at your track and see how far you really walked between the way points, usually, a lot further than the initial estimate.



Near Lake Lucy Long Jen Taylor



Please don't attempt this navigation method if you don't have a PLB and always have at least two companions if you are a novice like me. Many experienced locals like Greg French can walk through that huge area just using a mental map and compass, I have trouble finding my car keys every morning, so that seems super-human to me. As a fishing walker, navigation on the mainland is often as simple as finding the river, walking upstream and at the end of the day walking back. In Tasmania's Central Plateau it's a different game with hundreds of lakes scattered across the plateau. I'm not saying what we did is anything special, I'm sure many had done it before, but for me it was a revelation that the latitude and longitude of any destination you want to visit is there for free. Then there was the sense of accomplishment to do it for myself and the great fun in the planning. There are much more sophisticated ways to do this, with expensive GPS units that have very detailed, coloured, contour maps loaded into them and, of course, for the hard core, you can go old school, and just use a map and a compass, after all, for walkers, possessions are just a burden.

Read about choosing a GPS and using a smart phone as your bushwalking GPS in past editions of BWA magazine.

Scott stumbled upon the joys of bushwalking when listeners to his ABC Central Coast radio program convinced him to have a crack at a 100 kilometre Oxfam Trail Walk. While training, Matt McClelland introduced Scott to the wonderland of walks on his doorstep in Central Coast national parks. Scott's team the Hawkesbury Hobblers finished, and Scott's love of bushwalking was born. With new walking skills and knowledge, Scott has enjoyed combining bushwalking with his other great passion, fly fishing. Being selfsufficient and able to get away from popular fishing locations opens up a whole new world of relatively untouched angling opportunities. Scott has found, that usually the harder the walk, the better the fishing!

# Bushwalking Safety, Medical and Rescue FAQs

Wildwanderer



The bushwalking FAQ below attempts to list information that I hope will enhance your safety and enjoyment when in the Australian bush. It's the culmination of knowledge

from many people in the bushwalking and wider communities and will be

... culmination of knowledge from many people in the bushwalking and wider communities ...

most useful to those who are just starting out or returning to the bush after a bit of a break.

It's also a handy reference for what to do in the unlikely event something does happen on a trip, who to contact and what first aid steps to take while waiting for help to arrive. And of course, some suggestions to avoid running into trouble in the first place!

The following information is general in nature and may not be suitable for your specific circumstance. Use your own judgement. Use this information at your own risk.

### Before you go

Familiarise yourself with the walk route and make sure you can read the map you are carrying. Give a written copy of the route to your family or friend. Tell them what time you are expected back.

Check the weather service and the local fire service (to see if any fires are in the area). Check the park authority for any closures. You don't want to arrive and find the walk area is closed.

Remember to **respect the environment** by carrying out all rubbish. Do not leave spare food for other walkers. Do not cut down living trees for firewood/bushcrafting.

### What to take on most bushwalks

The following is for day walks in temperate environments.

Water On hot days for full day walks you may require more than three litres. Even on a cool day for a half day walk 500 ml is not enough if you have no other source of water.

Carry a pack, mobile phone, map and compass, (a Personal Locator Beacon (PLB) is strongly suggested), rain jacket, warm jacket, light weight first aid kit including blister treatment, food, heat reflective emergency blanket. Whistle/bright item of clothing/loud voice to attract attention if lost, needing help etc.

Wear light weight comfortable clothing appropriate for the conditions. Hat! Light weight comfortable athletic/outdoor shoes you have walked in extensively before (or lightweight outdoor boots if you prefer but generally not needed).

The above list is the minimal essentials. You will need to adjust what you are carrying according to the length and climate/ environment of your walk.

Be aware that if you're bushwalking in offtrack or remote locations or in areas subject to significant weather conditions then you



If walking in hot, dry, cold or wet areas the list varies.

Hot and/or dry Extra water, a broad brim hat, long sleeve shirt, maybe long pants.

**Cold** Warm clothing, thermal underwear, beanie or hat, gloves, high-energy food, perhaps a stove and billy for a hot drink.

**Wet** A bushwalking blizzard jacket, either long enough to sit on or with overpants.

# What to do if unsure of your location in the bush/wilderness

**Stop** As soon as you realise you're uncertain of your approximate location: stop, stay calm, stay put. Panic is your greatest enemy.

Think Go over in your mind how you got to where you are. Look at your map. What landmarks should you be able to see? Are you still on the track? Get your compass/ map and determine the directions of landmarks based on where you think you are located.

**Plan** Based on your thinking and observations, come up with an approximate location of your present position and a route

to another safe and known location that is easy to identify (it could be the car park or a track sign). Carefully proceed to the safe and known location. However, if after evaluating the above you are still not sure of your approximate present position and a route to the safe and known location then you are probably lost.

If you determine you are lost you should strongly consider contacting emergency services. If you're lost stay in your present location or move to a nearby location that is more easily visible from the air. Use bright clothing, a reflective emergency blanket, a mirror, a whistle, or your voice to attract attention.

### Contact emergency services for rescue if

- You or a member or your walking party is lost; or
- Significantly injured or ill to the point where you cannot safely self evacuate; or
- Are bitten by a snake or venomous spider.

## Emergency numbers in Australia

**000** is the standard emergency number for Australia. 000 can be called from any

... stop, stay calm, stay put. Panic is your greatest enemy.

mobile phone and landline. It may (but is not guaranteed) to work from VOIP internet



**112** is the international digital mobile phone emergency number. It will connect you to 000 and can be used as an alternative. It is not any faster than calling 000 directly. 112 can only be used from a digital mobile phone.

Using SMS (text) to contact emergency services. As a last resort if the mobile phone reception is inadequate for a call to connect then it's possible to use the SMS service provided by the National Relay Service. A relay operator will receive your SMS and then contact emergency service on your behalf. Here's more information on how to use the service. They also have a helpful video. Keep in mind that this service is designed for people with hearing/speech impairments so using it for the alternate purpose of contacting emergency services while bushwalking is not what it was designed for and it should only be used as a last resort.

Emergency app In an emergency situation you can use the following app to display your current location coordinates on your GPS-equipped mobile phone. It will work without a data connection however you will not be able to call emergency services and give them the co-ordinates (in an emergency situation) if you do not have a mobile phone signal/reception at that time. A PLB does not have this limitation (see below section).

### **Mobile phones**

- Be aware you may not have mobile phone coverage in the area you are walking, especially in valleys (even if close to a town).
- If coverage is weak, your phone battery will be used up much quicker due to the extra power required to maintain a weak signal and/or search for a signal.
- When walking switch your phone off and only use in an emergency. If you must use your phone (to take a picture etc) then keep it on flight mode for the duration of the walk as this will conserve the battery.
- GPSs and bluetooth use significant battery, so be sure to turn them on only when actively using. Then turn off.

### **Personal Locator Beacon (PLB)**

These are small lightweight devices, typically under 300 grams, that can be used in any

location worldwide. They do not require a mobile phone signal/reception as they use the global satellite system to track and locate activations. This system provides

... in a valley or a densely forested area it may take more time for the signal to get through ...

24 hour coverage across the globe. For details on when to trigger a PLB see bushwalking101.org/when-to-activate-a-plb/

When a PLB is activated a signal will be sent to the nearest rescue co-ordination centre which will organise a rescue response to the location of the PLB. The PLB transmits its location with an accuracy of up to 100 metres.



KTI Safety Alert PLB Source: Snowys.com.au

PLBs require a line of sight to satellites to work. Hence, if the PLB is located in a valley or a densely forested area it may take more

time for the signal to get through, up to several hours. If the PLB is located at a high point such as a hill or cliff top it has many more

Activate the PLB at a nearby location with clearest view of the sky possible.

opportunities to have line of sight to multiple satellites and therefore the signal can get through much more quickly, potentially within a few minutes.

PLBs do not work in a cave or anywhere there is no view or an extremely limited view of the sky. Activate the PLB at a nearby location with clearest view of the sky possible. PLBs only work when activated, which is done at the time of the emergency, not at the start of the walk.

You can borrow a PLB free of charge from some New South Wales Police stations (Blue Mountains) and it is possible to hire it in other locations around Australia.

In some locations, especially countries with limited Search and Rescue (SAR) resources a SAR response may take a long time to arrive, perhaps hours or days.

### Some common dangers in the bush

Pay attention to foot placement. Slippery and unstable rocks, uneven surfaces and ground level sticks can cause a fall or injury.

Watch for face level branches. These can injure your eye/face. Don't walk close behind someone as a branch may spring back and hit you.

Respect heights. Don't move quickly around cliffs and high places. Watch out for moss and wet rock which can cause you to slip. Don't dislodge rocks, you don't know who is below you.

Do not wade across a waterway unless you have experience in doing so or are with someone who has experience and knows the correct safety precautions. Do not wade across a waterway that is in flood or moving swiftly. Be aware of overhanging branches when pitching a tent. There is a chance (though unlikely) they could fall during the night due to wind or temperature fluctuations. Pitch your tent in an area with open sky above you if possible.

**Be careful around fires**. Always completely extinguish a fire before leaving. If the dirt in a fireplace or the remaining wood is still hot, the fire is not out. Always obey fire bans.

Be aware that walking solo can be riskier. Solo walkers should consider carefully if their experience, clothing/equipment and route knowledge is sufficient for the bushwalk being undertaken.

Stick together when walking in groups. If you need to stop let the others in your group know. Always pause at track junctions and ensure your entire group takes the correct track.

In early spring, be especially vigilant for snakes. During this time many snakes will come out of their winter low activity period and be warming themselves on trails and rocks. Never try to touch or kill a snake. Many bites are the result of people touching or attempting to kill snakes.

### **Snake bite**

A snake bite should always be treated as a venomous bite. Several snakes in Australia can cause death in under a few hours if they bite you and you fail to receive adequate first aid or medical treatment.

If bitten by a snake or strongly suspect you have been bitten:

- Remove yourself and the patient several metres from the snake's location/danger.
- 2. Do not move. Moving will rapidly increase the opportunity for venom to travel through your body and reach critical areas (which could cause loss of life).
- 3. Immediately wrap the bitten limb or body part with a compression bandage as this will slow the venom travelling through your system. Suggested bandage Setopress. This is a specially designed bandage with indicators guiding the correct amount of compression (tightness of wrap). Most chemists can order this in for you, \$12-20. A splint can be useful to prevent limb movement.

Red-bellied black snake Fotolia Premium

- 4. Activate your PLB, or if there's mobile phone coverage call 000.
- A snake bite will not always be visible as the tips of some snake fangs are like pin pricks/small. It can be painless.
- If you see a snake lunge for you and the snake head impact your body assume you have bitten even if you cannot see or feel a bite.
- Gaiters may provide some protection against lower leg snake bites however there is limited evidence to support this other than theory.
- Do not wash the bite site. As venom on skin may help identification and appropriate treatment once patient has been transferred to hospital.

### **Spider bite**

Several spiders in Australia can cause death in under a few hours if they bite you (and you fail to receive adequate first aid/seek medical treatment).



A male Mouse spider Peripitus via Commons.wikimedia.org/CC BY-SA 3.0

The most dangerous spiders include:

- Funnel web spider
- Mouse spider

If bitten by spiders that look like a funnel web or mouse spider treat as for snake bite. Immediately apply compression bandage, don't move and contact emergency services for medical evacuation.

Redback spider.

Please refer to St John Ambulance advice on treatment of redback spider bite.

Do not wash the bite site. Venom on the skin may help identification and appropriate treatment once patient has been transferred to hospital.



Female funnel web spider. They can also be black. Sputniktilt via Commons.wikimedia.org/CC BY-SA 3.0

### Injuries and other medical symptoms

- Take a first aid course to learn how to respond to various injuries/medical symptoms.
- If you cannot safely self-evacuate consider contacting emergency services for evacuation.

It's strongly recommended to delve beyond the basic information above.

There is a lot of great information in the Bushwalk.com forum, including discussion on first aid kit contents, what should you pack for an overnight walk, suggested bushwalking foods, day and multi-day walk suggestions for all areas of Australia etc. The forum search box is your friend. Read the discussion that led to this article.

The author wishes to acknowledge the many suggestions and additional information provided by members of the Bushwalk.com forum during the preparation of the FAQ.



# Drop bears: Chronic Stress And Habitat Loss Are Flooring Koalas

Edward Narayan



Each year, hundreds of koalas are taken to veterinary clinics after being rescued from roadsides or beneath trees, and the incidences increase during the summer months.

Chronic and ongoing pressures such as habitat destruction are overwhelming koalas' ability to cope with stress. Koalas are nationally listed as vulnerable, so it's important to understand how they are affected by threats that can reduce life expectancy and their ability to cope with problems.

### What is stress?

The term "stress" was coined in 1936 by Hans Sayle after experiments on rats. Sayle demonstrated that the adrenal glands, which sit on top of the kidney and produce the stress hormones adrenaline and cortisol, can swell in response to any noxious stimulus or due to pathological state. In addition, there are changes in the tissues and glands

involved in the basic functioning of the immune system, reproduction and growth.

The short-term stress response is not necessarily bad, because it prepares the

body to cope with external challenges. For example, tadpoles that are exposed to dragonfly nymphs grow larger and have bigger tail fins than other tadpoles.

... chronic stress over a long time can seriously affect an animal's health ...

However, chronic stress over a long time can

seriously affect an animal's health (humans included) and survival rates.

### How do koalas respond to stress?

Koalas release the stress hormone cortisol in response to any unpleasant stimulus like being handled by humans (oddly, males are much more stressed by handling than females, unless the females are lactating).



Koalas have biological feedback mechanisms that can regulate the amount of cortisol they produce, so they can carry on with their day-to-day routine. However, if koalas are continuously stressed by something large and permanent, such as land clearing of their territory, it's difficult for them to relax from a stressed state.

When this happens, the body undergoes a barrage of sub-lethal chemical changes. The resulting chronic stress can negatively affect the animals' reproductive hormones and immune system function.

Koalas, like all animals that call Australia home, have basic physiological and behavioural

adaptations needed for life in Australia's often extreme environment. But human-induced threats such as Foetal development of koalas could also be impacted by maternal stress ...

land clearing continue to create ecological imbalances, and chronic stress makes it very difficult for koalas to cope with environmental change.

### How much stress can a koala bear?

As my review of the research shows, the most common sources of stress for koalas are heat stress, car impacts and dog attacks. Foetal development of koalas could also be impacted by maternal stress due to lack of adequate food from gum trees in drought periods.

Urban and fringe zones (areas between rural and urban zones) are particularly stressful for koalas, with added pressures like noise pollution and a higher chance of land clearing.

All of these factors create a continual strain on koala physiology. The sight of a koala dead by the road is the distressing culmination of multiple, complex and dynamic environmental influences.



Clinical research has shown that wild koalas are suffering from chronic stress. Koalas

are often rescued with signs of trauma, caused by car accidents, burns or dog attacks, which is very difficult to handle in veterinary clinics.

clearing is not reduced now we will continue to add invisible stress on koalas.

Koalas are a living treasure, the only extant representative of the family Phascolarctidae. They live exclusively on Australia's east coast, but are considered rare in New South Wales and South Australia.

There are now numerous local dedicated koala conservation centres aimed at safeguarding their habitat and educating the public. Koalas also help increase public awareness of conservation among both young people and adults.

But more research is needed in studying how they respond to the stresses of life

in a human-dominated landscape. Techniques such as non-invasive hormone monitoring

Koalas are a living treasure ...

technology can be used to provide a rapid and reliable index of how our koalas are being affected by stress.

Simply put, if land clearing is not reduced now we will continue to add invisible stress on koalas. Our children may one day be more likely to see a koala dead on the road than one happily cuddling their gum tree.

### **Edward Narayan**

Senior Lecturer in Animal Science; Stress and Animal Welfare Biologist, Western Sydney University

The article was first published in The conversation (an independent source of news and views, sourced from the academic and research community and delivered direct to the public) on 25 October 2017.

### In the News

### Correction

In BWA June 2018 there was an article about the Overland Track. Some corrections.

The traditional Overland Track from Waldheim to Cynthia Bay is almost exactly 82 kilometres. The Lakeside section at Leeawulena is around 16 kilometres. Ronny Creek to Narcissus is 65 kilometres without sidetrips. There's a sign at Cynthia Bay saying that this is the end of the Overland Track.

Comments from the same person that picked up the above.

"When I first visited the current Windy Ridge Hut there was a multi-page print out of the design rationale by the architectural ignoramus, including the delightful information that the high ceilings were '... to avoid a feeling of claustrophobia.' Someone should have remembered the greater desirability of avoiding a feeling of hypothermia. The site has been known as Windy Fridge for almost as long as there has been a hut there. The name was certainly well known back in the early '80s. The wire-covered vents have to be rewired regularly because possums can chew through just about anything.

"People who get tummy troubles on the OT invariably blame the water when 99% of the time (if not more often) the cause is related to hygiene. It is all too easy for one careless person to contaminate a door or tap handle and, unless others use gloves, the problem is passed on to all comers. One more reason to avoid the huts.

"No comment about the website (except that you're far from being the first to notice its inadequacy) or the booking system (except that since its inception I only walk certain sections off-season)."

### **Hike Naked Day**

Held on summer solstice (21 June) each year, this is the day when clothes come off and body parts breath freely. Thru-hikers on the Appalachian Trail and Pacific Crest Trail have the largest number participants.

### Luxury camp in Tasmania's Wilderness World Heritage Area (TWWHA)?

The Tasmanian Government is planning a luxury camp at Halls Island, including a helipad.



## **Common Food Questions**

Sonya Muhlsimmer



There's a number of common food questions that people ask me about gluten free foods. Are the recipes in my book gluten free? What can I use as a substitute in a recipe that calls for wheat? I have recently been diagnosed with coeliac disease, or gluten intolerance: what can I eat?

I thought it was time to cover this topic and hopefully answer these and other questions. You are probably asking why I'm writing about this in a bushwalking magazine. Well, as I said I have been asked a lot of questions about this topic, and besides, what would you do if your hiking buddy or someone in your group you are leading says they have been diagnosed with coeliac disease or are gluten intolerance and you are doing the menu for the trip? You have to know a bit about how to prepare the correct type of food and what they can and more importantly what they can't eat, or you may have heard about it and just want some more information. So here it is.

### Coeliac disease or gluten intolerance

Coeliac (pronounced something like seeli-ac) disease is an auto immune disorder. The body reacts to a type of protein found naturally in wheat, barley and rye, adversely affecting or damaging the lining of the small intestine. This is a complex disease, and I will keep this as simple as I can. Here goes ... The small intestines are covered in microvilli, and these microvilli are like millions of microscopic fingers covered in microfilament that are designed to increase the surface area of the small intestine. The microvilli help trap food and with an enzyme contained in the microvilli, the food breaks

down and crosses the lining of the intestine to reach the body tissues. For someone that has coeliac disease, the body's reaction to gluten is that these microvilli break down, disappear, lose shape or flatten which damages the lining and surface area of your intestine. This means you are more than likely to have poor nutrient intake from your diet as your intestines can't properly absorb the food you eat. The cure? You have to remove gluten from your diet; the disease can't be cured. By the way, the small intestine has an approximate surface area of around the size of a tennis court. That's big!

Coeliac disease is pretty common. According to Coeliac Australia it affects approximately one in 70 Australians, and apparently a lot of people from this number don't even know they have it. Coeliac disease is one of the most under-diagnosed disease in Australia. That is shocking ... and another good reason to talk about it. So are you one of them, and how do you even know if you have coeliac disease or are gluten intolerant? If you leave this disease untreated, it can lead to serious health issues. If in doubt, take the Coeliac Australia's Online Self Assessment for a start. It is a basic assessment but worthwhile if you are in doubt in any way, and the web site has some really good information.



## Why is there so much coeliac disease now?

You must be born with a genetic disposition to develop coeliac disease, but environmental factors play a role in triggering the reaction, and the cause to why some people get it and others don't is still a mystery.

According to a scientific journal the likely rise of this disease is due to environmental factors as the rate it is growing it is too quick for genetic changes to occur. In the last century there's been significant changes in our diet and the use of antibiotics, which can alter the microflora – this is the bacteria in the gut, thus changing the reaction in the gut to gluten. Another theory is that the microflora could be different from the beginning, and this is like the flow on effect.

Gluten intolerance is a separate condition by the way. The symptoms are similar but the difference is that gluten intolerance is not as dangerous as having coeliac disease.

### Let's talk about what you can't eat

Gluten is found in wheat, barley, oats and spelt, so that means food like bread, cakes, pasta, biscuits, cous cous and beer should be avoided. Simple right? Not really as gluten can also be disguised in or added to some foods such as soy sauce, vinegar, cornflour, seasonings, textured or hydrolysed vegetable protein and maltodextrin. It is also recommended to avoid foods that

contain MSG, which has an additive number of 621 on the ingredients label. MSG has been reported to cause some health symptoms in coeliac sufferers so it is

Coeliac disease is a lifelong disease ...

best to stay away from it. You will also have to learn a bit on how to read ingredients labels. The Food Standards are pretty good at food labelling these days so if the pack says Gluten Free, it usually is. Or if it says "May Contain", well, it may contain some allergenic substances, generally due to cross-contamination in the manufacturing environment, and you may have a reaction when you consume that food. Check out the Australian Food and Grocery website for more details on labelling.



### What you can safely eat

There are many naturally gluten free foods to choose from such as meat, fish, fruit, vegetables, nuts, buckwheat, polenta, legumes, quinoa and rice to name a few. There is also gluten free baking powder. If you cruise the supermarket aisle you will find a range of products that say gluten free, and products that can be used as a substitute for gluten containing products.

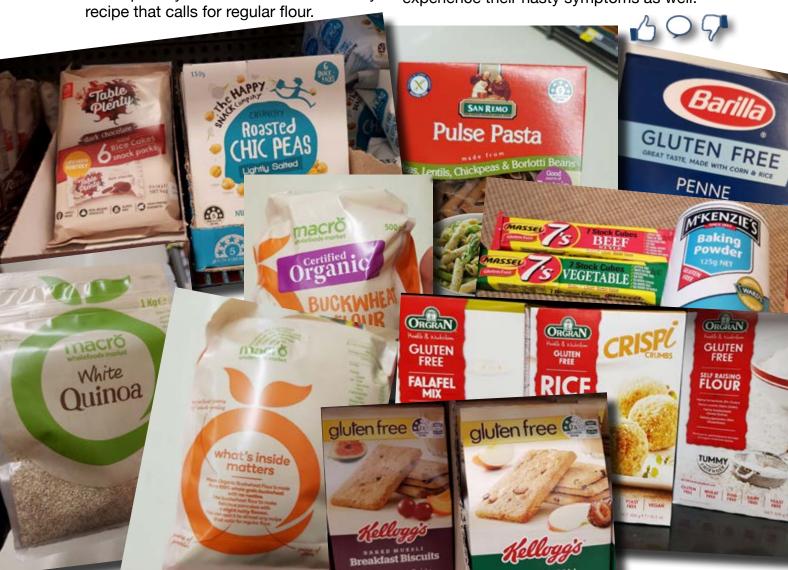
These are just some gluten free products available at my local Woolworths.

- Rice cakes and roast chick peas as snacks.
- Breakfast biscuits however I recommend having these as a snack and not solely for breakfast.
- Quinoa cook it just like rice, and you can even get quinoa flakes which is great for breakfast and cooks in a couple of minutes.
- Buckwheat flour as stated on the back of the pack: you can add it to almost any

- Gluten free pasta, falafel mix, rice breadcrumbs and self raising flour. Organ is the brand that does a lot of gluten free products, check them out.
- Lowan brand rice flakes and rice porridge.
- Last but not least gluten free baking powder and stock cubes are readily available.

A handy hint: if you are not sure of something stay away from it, especially some seasonings and as a substitute just add some salt, pepper, a few dried herbs and a pinch of chilli, keep it simple.

So if you hiking buddy says they are gluten intolerant or have coeliac disease, look after them and feed them well if you are in charge of the food. Do your homework - read up on the disease and learn how to read food labels, and remember to KISS - Keep It Simple, Stupid. You don't want them to experience some of the nasty symptoms out on the trail and I'm sure you don't want to experience their nasty symptoms as well.



### In the News

### **Feral horses**

In BWA June 2018 there was an article about feral horses in Kosciuszko National Park. Since then there's been a few news items.

On 2 June the **Brisbane Times** ran an article on Victoria's plan to control feral horses which puts it at odds with New South Wales.

This article started: "Victoria has challenged NSW over its plan to extend protection to wild horses in the Kosciuszko National Park, introducing a rival strategy to control animals it says are 'causing significant damage to threatened plants and other wildlife'".

Stephen Lake comments: In effect the NSW government is saying that horses are not a problem and the Victorian government is saying that they are a problem. It's interesting that the Brisbane ran this article.

The **ABC's 7.30** program had a good report on 4 July, saying:

"Wild horses at the centre of a controversial new law."

Stephen Lake comments: This is more or less the same as other media, but with more graphic images and interviews. There's also a number of comments.



On 5 July the **Sydney Morning Herald** had a further article:

"About 200 national park sites damaged by the original Snowy Hydro scheme are yet to be repaired and feral horses trampling through the Australian Alps are limiting water available for hydro power as the federal government plans a massive expansion of the project", scientists and academics say.

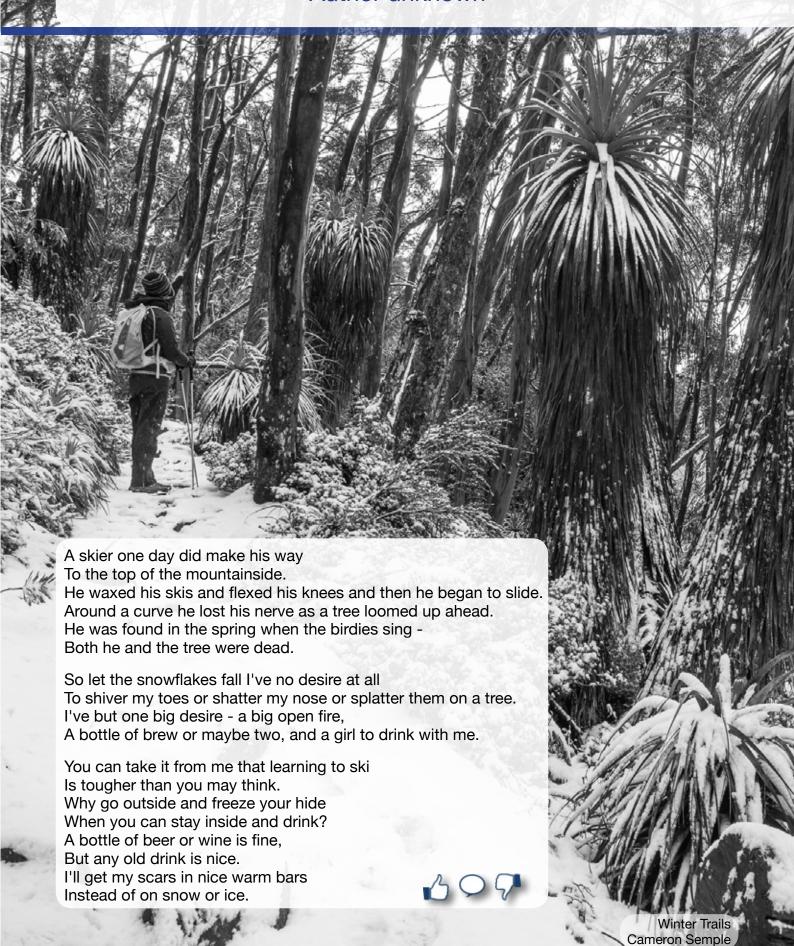
Stephen Lake comments: The adverse implications for the proposed Snowy 2.0 scheme need to be addressed. Will the Liberal federal government take action making Snowy 2.0 viable thwart the Liberal New South Wales state government's pro-feral horse policy?

There's also been a request for access to submissions. One person who made a submission has received an email:

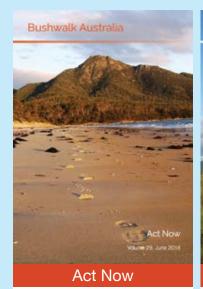
"The NSW Threatened Species Scientific Committee has received an access application under the Government Information (Public Access) Act 2009 seeking access to submissions received relating to the Preliminary determination for Habitat degradation and loss by Feral Horses."

# A Skier One Day

Author unknown



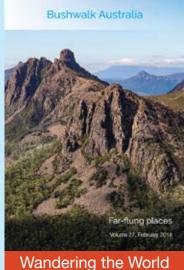
### **Bushwalk Australia**



- Viking Circuit
- A Blogger's Journey
- Overland Track
- > Teddy Goes Trekking



- D'Alton Peaks, Grampians
- Three mighty peaks
- Sleeping bags
- Our forests are worth standing



- 10 reasons to Hike The PCT The Spires via Holley Basin
- > From hiker to Globewalker Should they be stopped?



- Bushwalking Heritage
- Kidmans Hut Walk
- Conquering the Giant
- Dam Madness
- > Five benefits of silent bushwalking



Discover & Explore

- > The Great River Walk Mount Triglav, Slovenia
- > First aid kit



Wandering the World

- 10 reasons to Hike The PCT
- The Spires via Holley Basin
- > From hiker to Globewalker



Longer and Wilder

- The Western Arthurs
- Bibbulmun Track
- Skinners



Desert Discovery Walk

- Rewilding
- Sun clothing

Bushwalk Australia



Six Foot Track

- Choosing a GPS
- Water requirements



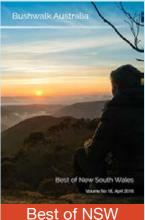
> AAWT

High horses



Winter Walking

- Gear freak footwear
- 10 tips for snowshoeing



Best walks of NSW Wolgan Gorge adventure



Best walks of Victoria

Wilsons Prom



- Best walks of Tasmania
- Rescue at Cradle