

Tech Dive NZ

Newsletter March 2011

www.techdivenz.com, info@techdivenz.com

WELCOME TO OUR MONTHLY NEWSLETTER

Welcome to the March issue of the TDNZ newsletter. Since our last newsletter we've had a cave fest, experiencing everything from the fabulous to the tragic. As posted in earlier newsletters we've been to Blue Creek Resurgence - which was a very 'real' trip, and also been to see Sanctum 3D, which wasn't quite so 'real'. We've had lectures and talks at OZTeK about impressive cave expeditions



Jamie in 'B' tunnel, Blue Creek Resurgence.
Photo by Steve Trewavas

around the world, done a little dry caving of our own here in NZ and witnessed the loss of one of Australia's leading female cave divers Agnes Milowka.

Cave diving is always going to be on the fringes of the diving world. It will never become mainstream simply because of the immense amount of dedication, training and equipment required to safely undertake such dives. The occasional cavern dive is all that the vast majority ever get to see of the beautiful and dangerous world beyond the daylight zone.

Of course we had hoped Sanctum 3D was going to provide more of an insight, but Hollywood as always demands the sensational. Whilst some of the beauty of the underworld was shown, euthanising injured divers is not the norm in our experience. However, the film was eerie in another way, as Agnes Milowka was a stunt diver for the film. Watching her simulating drowning, knowing that only 3 days earlier it had happened for real was a difficult experience.

Finally OZTeK - unlike Sanctum it did not disappoint. The range and quality of invited speakers was superb and those of us who went did not miss the opportunity to have a few drinks with some of today's living legends. For a full report see the section later on in this newsletter.

LOCATION HIGHLIGHTING A GREAT NZ DIVE SITE



OK, so your first cave dive is always going to be a bit daunting, but if we had to recommend a location for this first dive then Riwaka Resurgence would be it.

Located only 20km from Motueka, this is probably one of the most accessible cave diving sites in NZ. There is a large carpark only 5 minutes walk from the cave, the walk up to the cave is relatively flat and wide and DOC have very helpfully provided some solid steel steps to help you get down to the entrance pool.

The picture above shows the entrance pool, which is big enough for 4 or 5 divers to be in the water at the same time. The water is a cool 10-12 degrees, depending on the time of year (it was 10 degrees when James and Jamie

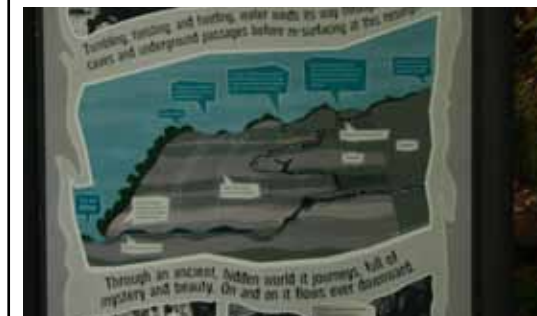
dived it in September), but for a NZ cave this is good.

The dive itself is split into two parts, sump 1 and sump 2. (There are more sumps but they are very difficult to access.) In sump 1 you can swim almost 100m, although the actual overhead portion is only a few meters. In sump 2 you swim another 80m, with the majority being in the overhead environment.

The water is usually very clear (20-30m vis) and the bottom is mainly fine white silicate sand and large rocks - so no major silting problems. The maximum depth is about 10m.

The only awkward part of the dive is getting from sump 1 to sump 2, which involves climbing out of the water and walking across a low rock pile for about 40-50m. Be careful not to twist an ankle carrying your dive gear on this part.

Steve B gave us the best description of this dive site: "It's given me my silly smile back."



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DIVING

TRIP OF THE MONTH

Blue Creek Resurgence February 18-27th

Are you an avid Google Earth user, or do you prefer the touch and smell of a real paper map? Whatever your preference the existence of maps is something we take for granted in the modern world. It is almost inconceivable that we might go somewhere new without a map and although it might sound strange even the first astronauts had maps of where they were going. But what if I told you that right here on earth there are still places which are unmapped and unexplored; places not shown on Google Earth; places which have not been photographed by satellites and which no human has ever seen. I'm talking about caves – the last true unexplored frontier.

Of course all the easily accessible caves were explored 100's of years ago, today what remains are only the most difficult, dangerous, inhospitable or inaccessible ones; or as cave explorers euphemistically call them, challenging. Blue Creek Resurgence near Mount Owen in New Zealand is one of these caves. It is only accessible to divers and only during the dry summer months; it is located a long way from the nearest habitation; it is deep; it is very cold

(6 degrees); and most excitingly for us all previous exploration has been extremely limited.

I initially heard about Blue Creek in 2007, but at the time was not in a position to visit. I first visited in September 2009, when I did a non-diving day trip to check out the logistics. In January 2010, together with Mel Jeavons and James Croker I did my first dives into the cave, again checking things out. How tight was it? How clear was the water? How much flow? In April 2010, Mel and I went back, this time with Steve Baldwin and Peter Carruthers. We did 6 dives, going much further into the system and taking a video camera with us. All the dives were still within the 'explored' part of the system, but they had a purpose – familiarisation, preparation, development. Little steps and although we weren't extending the limits of the known world we were learning what was required of us if we wished to do so. In February this year we took the next steps.



STEP 1: The Team

For this trip we decided to take a bigger team than previously, which reflected the additional goals we had set ourselves. There were 4 of us from NZ, James, Mel and myself as per the first trip, plus Mike Batey – who as well as being very keen and enthusiastic is also young, fit and strong – an important consideration when you have a vast amount of heavy equipment to carry. We were also joined by Steve Trewavas and Trent Lee from Australia, who brought a wealth of experience with them. Steve is the National Director of the Cave Diving Association of Australia (CDAA) and Trent is a real Mr. Fixit type of guy (affectionately known as an equipment geek - or the wedding singer, but that's another story..), the type of person all expeditions need.

STEP 2: Equipment

Preparing for a week of diving in a remote location is not entirely straightforward. With the nearest town over 80km away and the one dive shop only offering air fills, having your own compressor and the ability to blend trimix is a necessity for such a trip. We purchased a compressor in 2010 and over the last few months we have built a portable trimix blending system, capable of filling tanks with whatever mixtures we require. Having enough tanks for such a trip is also costly: we used 24 dive tanks during this trip,

plus had large oxygen and helium tanks with us. The other issue is tools and spare parts, enough to fix any of the dive gear, the compressor, the van and set up a habitat.



For those of you unfamiliar with the term, a habitat is a dry area of cave created by the use of either a large rigid box or water tank type container, or a more flexible set up like an air tight tent. It is open at the bottom and filled with air to the same pressure as the surrounding water. The habitat is anchored to the cave in some way and allows the divers to duck inside and get out of the water, whilst still remaining at pressure for decompression purposes. (Hopefully the picture explains it better than my words.) The habitat we used on this trip had been designed and fabricated by Trent.

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BLUE CREEK RESURGENCE

STEP 3: Access

Blue Creek is not on a main road unfortunately, but instead in the middle of a national park. After driving along 23km of gravel road you reach a grassy car park and from here it is a 1.7km bush walk to the entrance. And the entrance itself is not simple. The small crack you pass through to get to the entrance pool is set back and down into a rocky gully, bounded on 3 sides by sheer rock walls and on the fourth side by a slope of slippery moss covered boulders.

On our last trip we had trialled hand carts for moving all the gear from the car park along the 1.7km track and we again made use of these. A cart loaded with a twin set and some dive gear can be moved up to the cave in about 25-30mins. However, the next part of our logistical exercise was a huge improvement from the last trip. We set up a zip-line from a tree at the end of the track right into the cave itself, and whilst this took an hour to set up the time saving was enormous. We could move a set of double tanks into the cave in only a couple of minutes – compared to approx. 45mins if you had to carry the gear up and across the boulder slope. This time saving meant that on the first day we were able to cart all the

gear up to and into the cave and still have time to do a first dive. On previous trips we have always been too tired to do any diving on the first day.



STEP 4: Diving

Diving in the cave is quite challenging. Apart from all the 'normal' factors associated with diving in an overhead environment, Blue Creek is cold, deep and in places quite tight. The entrance pool is large enough for 4 divers to be in the water at the same time, but once you descend down the 45 degree slope and pass the 15m mark you are forced to go mainly in single file. The bottom is a gravel slope and depending on rain fall and flow during the winter this slope can be anywhere from 1.5m to 50cm from the roof of the cave. In the latter case you have to push the gravel out of the way in order to progress into the

cave, knowing that all the while it is filling in behind you. You continue down the slope to about 35m where you reach an intersection with 4 tunnels. Dropping down the main tunnel you reach a pinch at 40m and then a big rift chamber at 45m. From here you drop down very quickly to 60m. From reading various reports from other would-be explorers most people don't make it to the end of the gravel slope at 35m.

The big upside to the cave is the visibility. Once clear of the gravel slope we had 10-15m visibility on every dive, which massively reduces stress and make mapping far easier. There are also various shallower tunnels to explore which allows less experienced team members to avoid big decompression obligations.

In total we did 12 dives in the cave, which included our set up dives, mapping down to 44m, two photography dives and a familiarisation and exploration dive to 60m.



Above is Jamie, below is Mel.



To read the rest of this report check out the website: www.techdivenz.com.

All of the photos from this report were taken by Steve Trewavas.

Our next Blue Creek trip will be at the end of the year.

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WHAT'S COMING UP

Matai Bay - Northland March 26th - 27th

The most chilled out diving in NZ. Jamie will be running a cavern course for those people interested, otherwise just come along for the warm sea water and cold white wine.

The diving is excellent, the scenery is spectacular, the logistics are easy, the dive sites are uncrowded - in fact "it's all good."

We have a couple of places left on this trip, so if you fancy a last minute dive, call us ASAP.



Orewa Fun Run April 17th

Half a dozen of us have already signed up for this event. Join us and do either the 5, 10 or 20km run.

GUE Fundamentals April 22-25th [Easter]

Learn how to back-kick, how to hover and why many of the world's dive ninjas all wear the same equipment configuration. This class is the gateway to all GUE training and an excellent starting point for would-be techies.



The course is a very intense 4 days, but you will have a great time and you will learn loads. In fact Jamie is so confident you will learn a lot he offers a money back guarantee: a full refund if you don't think the course was worthwhile. How good is that?

The course is strictly limited to a maximum of 4 people; can be done in either a single or double tank configuration and is suitable for everyone from a 10 dive novice to a 500+ dive expert. If you want more info drop Jamie an email or give him a call.

Cave & Cavern diving: Poor Knights April 29th - May 1st



Join us for a 3 day live-aboard to explore the hidden interior of these iconic islands. Enjoy the challenge and beauty of Taravana, Crystal and many other caves. During this trip you can also do the TDI Cavern course, TDI Introductory Cave Diver course, or both as a combo. Please note, over half the places on this trip have already been taken, contact us ASAP if you want to join us.

Poor Knights Winter Live-aboards

May 28-29th

June 11-12th

July 9-10th

August 13-14th

September 24-25th

During these weekends we will be specifically targeting the dive sites for the 10*10*10 challenge. See below for more details.

Mikhail Lermontov October 14-17th

This is NZ's biggest and most totally awesome wreck dive! It has 12 decks, lots of artifacts and areas to explore and it's all located in a max. depth of only 37m - perfect. Having done 4 trips in the last year we've now learned how to access some of the wrecks best kept secrets - but they will remain a secret unless you come on this trip.



Events still to be scheduled:

Lake Taupo and Waikato River drift dive

Halcyon Treasure Hunt

Cage diving with Mako sharks

Cave 2 in Mexico

SAFE DIVING EVERYONE

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OZTeK '11

CONFERENCE REPORT

It has been two years since the last OZTeK, which seems like along time, but as always the wait is worthwhile. Without a doubt this is the best opportunity to meet with and listen to the cream of technical diving from around the world. And we really mean meet - all of the speakers are wandering around the exhibition when they are not presenting and they are all open to questions.

Strangely only a few of us made the short trip to Sydney, but those of who did had a great time.



Some of the highlights included listening to Rick Stanton discussing his Pozo Azul dive, which involved a world record 8.5km traverse via three sumps. And the cave is still going! Other great talks were given by Casey McKinlay on the WKPP and NZ's own Professor Simon Mitchell discussing the impact of carbon dioxide on divers.

However, the talk which stands out was the one which dealt with the most difficult and potentially most controversial subject. Leigh Bishop presented a talk on the death of Carl Spencer, one of his best friends, on the Britannic Expedition in May 2009. Leigh presented a very thoughtful and complete talk on the events leading up to and the fallout from the tragic death, and more importantly highlighted what lessons need to be learned so it doesn't happen again. This is exactly the type of information divers everywhere need access to - well done Leigh.

As usual the conference ended with the Gala Dinner, which may seem civilised on the surface but quickly turns into something far more drunk and disorderly - but a lot of fun. I think most attendees would have had hangovers in the morning.

So now we have to wait for another 2 years - a long time - but we will definitely be there in 2013. In fact we're looking forward to it already. If you missed out this time then put a mark in your diary for the next one today.

DIVE CLUB

LATEST NEWS AND FUTURE EVENTS

We had several club get-togethers in February; two different trips to see Sanctum, plus drinks at the Horse and Trap in Mt Eden. The drinks session was well attended, with about 15 of us there and we also welcomed Rita and Neil to NZ, recently arrived from Hong Kong.

We have also been trying to generate a little more publicity this month, with 3 of us (Christian, Mel and Jamie) wearing TDNZ T-shirts at OZTeK - the picture shows the back of the T-shirt. We felt the black and white colour scheme, plus the huge NZ would let the Aussie's know where we were from. (We'll ignore the fact all 3 of us have English accents.)

At present we only have 3 T-shirts printed, but if anyone is keen to get one for themselves we will be doing another print run later this month. Email Mel if you are interested. mel@techdivenz.com

In terms of club activities this coming month we've decided to do one final evening in the sun, hopefully before the nights get too dark and cold. We'll be having drinks at Mission Bay, at the Belgium Beer Cafe: De Fontein. The date for these drinks: Tuesday April 5th; time 6pm onwards.

For our May club evening Jamie will do a talk on the recent trip to Blue Creek, and will show a selection of pictures from inside the cave system, plus give everyone who is interested a chance to see the habitat we used and even climb inside if you wish to really have the full experience. This talk will also combine with house warming drinks for Jamis and Mel's new house. (Yes we know it's a bit late but we had to wait for all the visiting relatives to go first.

Finally advance warning for June/July - we're thinking about a night dive for either the June or July club night. Does anyone have any preference for location or date?

Happy diving everyone!

PS: Congratulations to The Auckland University dive club, 50 years old this month!



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10 x 10 x 10

WINTER DIVING CHALLENGE

*****DATES NOW*****

RELEASED

We are looking for 10 adventurous divers to take up our winter diving challenge.

Between May and September we have arranged 10 days where we will be specifically targeting 10 of the most exciting and challenging dives at the Poor Knights Islands. Pit your skills against the whims of the weather gods and the best sub-tropical diving in the world.

The first diver to complete all 10 diving challenges* wins a free weekend of diving with OceanBlue. And EVERY diver who completes 6 challenges gets a half-price weekend with OceanBlue.

*or the most completed challenges at the end of the period

*****DATES NOW RELEASED*****

What have you got to lose?

Join us for all or just a couple of the diving weekends aboard Mazurka, knowing you will be sailing out specifically to dive the best spots.** On each weekend you have the

opportunity to do up to 7 dives, you will get great food and have great company. And after only 6 successful challenges you get even more diving for free. In fact the only thing you can lose is this opportunity, if you sign up too late and all the places have gone!

**Weather dependant

The Challenges

1. Twelve-Fathom Reef
2. Phil's Pins
3. The Mermaid of Taravana
4. Fresh-water zone in Crystal Cave
5. The Chimney at Fraggie Rock
6. The Window on Landing Bay Pinnacle
7. Drift-dive: Wild Beast Pt:Northern Arch
8. Circumnavigate: Sugarloaf or Scary Deep
9. The air chamber at Red Baron Cracks
10. East or West

We have tried to pick dive sites which show off all the best bits of the Poor Knights Islands, plus highlight a few of the lesser known gems, such as Phil's Pins and Twelve Fathom Reef. These are some of the main sites which helped to rank the Poor Knights as Top 10 in the World, and if you haven't seen them yet you are really missing out.

The Dates

Weekend 1:

Saturday 28th and Sunday 29th May

Weekend 2:

Saturday 11th and Sunday 12th June

Weekend 3:

Saturday 9th and Sunday 10th July

Weekend 4:

Saturday 13th and Sunday 14th August

Weekend 5:

Saturday 24th and Sunday 25th September
(This weekend is also special as we will be celebrating Jamie's 40th Birthday!)



Details

Our belief is that anyone who enjoys their diving will want to do at least 4-6 days diving in a five month period, especially with such a great selection of dive sites on offer. And unless disaster strikes this should be comfortably enough time to earn a half-priced weekend, maybe even a free weekend if you work hard.

We also think by giving you plenty of time to prepare and train for this challenge that all of the dive sites are possible. Of course we're not making it easy – but then anything good takes a bit of effort.

As the challenge progresses we will give regular updates in the TDNZ newsletter so everyone will know how our 10 divers are doing. And the divers will know who is out in front in the race to do all 10 sites first and claim the free weekend.

All the diving will be done from Mazurka (OceanBlue) and Kev and the crew will be giving plenty of help and advice to ensure you successfully dive each site.

HOW TO ENTER

If you want to join in this challenge please send us an email. info@techdivenz.com Remember only the first 10 people to contact us get the chance to win a free weekend!

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PROFILE

CLUB MEMBER OF THE MONTH

In this section we profile one of our dive club regulars, find out a little more about them and see if they have any recommendations for us. This month we profile:

TONY FRITH



Profession/job? Primary School Teacher

When did you start diving? I did my open water course in 1991 and then didn't do anything with it until 2006. I guess you could say that was my real start in diving.

How many dives have you done? 203

What qualifications do you have? PADI Divemaster and Master Scuba Diver, various specialties, GUE Fundamentals

Favourite NZ dive site? Tough choice. For life either the Poor Knights or Volkner Rocks, for wrecks either the Waikato or the Lermontov. And I loved Riwaka Resurgence.

Which course would you most recommend? GUE Fundamentals or Advanced Wreck

What do you love most about diving? The peacefulness – Less hustle and bustle, less extreme noise than we are accustomed to in the ordinary world, amazing learning opportunities, see amazing sights and having amazing experiences. I tend to dive more for the experience and to take photographs rather than taking prey.

What do you do when you are not diving? I enjoy tramping, fishing, mountain biking, reading (particularly Sci Fi, Fantasy and Medieval English History), plus spending time with family and friends.

Any other information we should know about you? I love diving as much for the social side and great people as for the diving itself. I enjoy taking photographs, but I'm still at the stage of only getting the odd good picture. I'm looking forward to doing more wreck and cave diving in future as these are the diving areas which interest me the most.

DIVE FACTS

DID YOU KNOW?

No one is entirely sure when diving equipment was first used for cave exploration, but we know it was used at least 130 years ago. In 1878 a Frenchman from Marseilles, Mousieur Nello Ottonelli, used 'Standard Equipment' to visit Fontaine de Vaucluse, near Avignon.

Records also show Standard Equipment being used in 1880 to help stop flooding in the Severn Railway Tunnel in the UK and again in 1894 in an attempt to rescue some trapped cavers in Austria. Standard Equipment continued to be used by cave explorers into the 1930's, with groups of divers pushing caves in the UK, France and Switzerland.

By the 1940's diving equipment had developed into it's current form: compressed air cylinder and regulator - and in 1946 Jacques Cousteau returned to Fontaine de Vaucluse with the Undersea Research Group. However, his was not a successful expedition, with both Cousteau and his diving companion Frederic Dumas both coming very close to death.

Throughout the rest of the 1940' and 50's cave diving exploration continued to grow in Europe and in 1951 the first dives were



carried out in Florida, which is still one of the foremost areas for cave diving anywhere in the world.

Rebreathers have also been part of the cave diving world for a long time, with Graham Balcombe using an oxygen rebreather in Wookie Hole (UK) as early as 1944.

The use of helium in breathing mixtures is another area where cave divers have again lead the way, with heliox being successfully used as early as 1970: Sheck Exley and Jochen Hasenmayer dived to 212m!

So if you want to know the future of the recreational diving market simply look at what the cave divers are up to.

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New Zealand 