



# Fathoms

APRIL 2012 – MAY 2012



*Cook Islands diving*

*Dive, dive, dive... until you drop!*

*Underwater time bombs*

Postal Address:  
VSAG, 15 Regal Ct, Vermont South VIC 3133

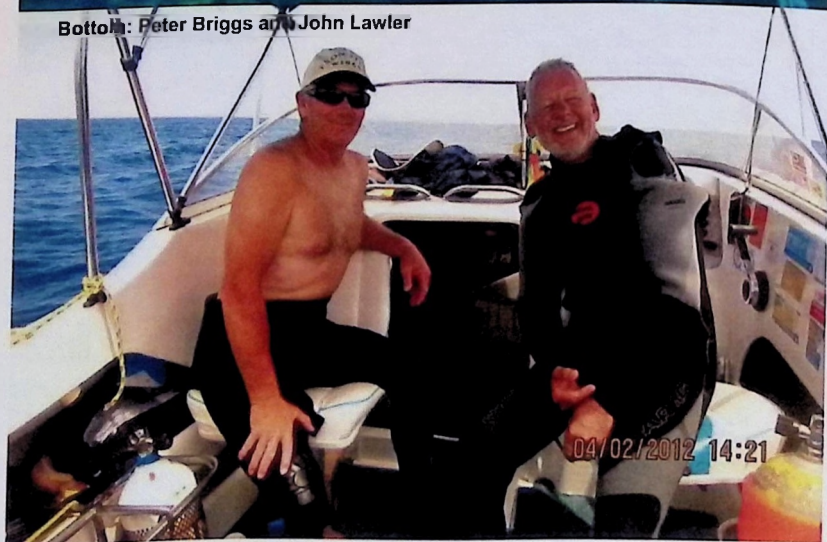
editor@vsag.org.au  
www.vsg.org.au



Photos: Benita McDonough — Top: JL on the prow

04/02/2012 13:43

Bottom: Peter Briggs and John Lawler



04/02/2012 14:21



# Fathoms

*Official Journal of the Victorian Sub-Aqua Group*

**In this April 2012 – May 2012 issue...**

<b>Article</b>	<b>Author</b>	<b>Page</b>
Notices		4
Editorial	Lloyd Borrett	5
VSAG Committee 2011–2012		6
Meeting report: El Pozo Azul Cave	Lloyd Borrett	7
Cook Islands diving	Alan Storen	8–11
Dive, dive, dive... until you drop!	John Lippmann	12–13
Dive report: Pope's Eye & Eliza Ramsden	Michael Ngai	14–17
Dive report: North Wall Corner and Ocean Grove Reef	John Lawler	18–19
Dive report: Rob's Reef and Coogee	John Lawler	20–22
New Zealand coastal marine casualties	John Lawler	24–25
Diving the web	Lloyd Borrett	26–27
It went something like this...	John Lawler	28–30
Underwater time bombs	Islands Business	31–37
Emergency contact information		38
Tidal streams at the heads: February 2012 to April 2012	Graham Ellis	39–41
VSAG dive and meeting calendar	Graham Ellis	42

## **VSAG General Meetings**

3<sup>rd</sup> Thursday in the month

Meeting starts at 8.00 pm

(Dinner starts from 7.00 pm)

Maori Chief Hotel

117 Moray Street (corner York Street)

South Melbourne VIC 3205

Melway: 1D L11

## **Editorial Submissions:**

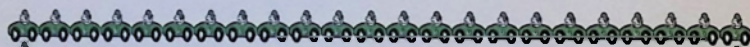
Email to [editor@vsag.org.au](mailto:editor@vsag.org.au)

Lloyd Borrett M: 0418 170 044

Cheryl Lees M: 0448 863 455

35 Courtenay Ave, Cranbourne North VIC 3977

Copyright © 2012 by Victorian Sub Aqua Group, Inc. ACN 004 591 575. All rights reserved.



## Tasmanian Combined Dive Clubs Weekend

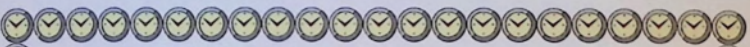

On the Queens Birthday Long Weekend in June the Tasmanian dive clubs gather at Bicheno on Tasmania's east coast.

Last year some Getunder and VSAG dive club members joined them and had a great time. They travelled over on the ferry on Friday night. Most came back on the ferry on Monday, but some stayed on a bit longer.

If staying on, one option is to head down to Eaglehawk Neck, which is a highly regarded Tasmanian dive destination. Another is to just go into tourist mode.



David Geekie went to Bicheno last year and had such a great time that he's looking to do it again this year.

If you're interested in being a part of this interstate trip, then please contact David by email to [dgeekie@bigpond.net.au](mailto:dgeekie@bigpond.net.au) or call 0419 300 686.



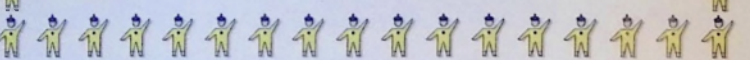
## VSAG Dive Equipment Box

VSAG now has a private transient equipment box located at The Scuba Doctor dive shop, 1/49 Peninsula Avenue, Rye VIC 3941. Equipment that is not in-use by VSAG divers and boat owners can now be held in our black storage box. Please use this facility responsibly.



Reports to the editor on VSAG dive days and other activities are actively encouraged. If possible please identify the dive captains, boat owners and other divers with you on the dive day.

Any photos of club dive days, trips and social activities are also most welcome. Please provide captions and identify people where possible.



# Editorial



Well we have another interesting edition of Fathoms for you. A nice item from Alan Storen about his recent trip to the Cook Islands. Plus an interesting read about the potential problems oil leaks from ageing wrecks might cause at Chuuk Lagoon.

Thanks go to Benita McDonough and David Flew for some great dive day photos. Plus there's a video from Michael Ngai for you to watch online as well.

Sadly, we're missing a number of dive reports. If the dive captains don't write them, or fail to get someone else to do it for them, then we all miss out!

I've had another idea for one of my esoteric diving articles, but haven't had a chance to write it. Yet Fathoms seems to have come in at a respectable number of pages anyway.

## Too busy to dive

Cheryl and I have found ourselves in the mode, which seems to be common for some VSAGers, of "too busy to dive". The Saturday before Australia Day we decided to move house, found a new place the next day, took a look on the Monday evening, and our offer to buy it was accepted on the Friday.

So we launched into a massive de-cluttering of our two places in readiness for them going onto the market, plus started planning the move. I became unemployed again, just to make things a little more complicated. (Anyone need a Marketing Manager with an in-depth understanding of web sales, online and offline marketing, digital communications and social media?) Then Cheryl's mum died and we had to deal with everything that that entails as well.

The result is that we haven't been diving since early January, and it seems unlikely we'll get back out diving until sometime after we move to Frankston South in late April. We're both missing it heaps.

This is the longest period I've spent out of the water since I started diving in early 2006. It's also the longest period for Cheryl.

I used to be a bit amused when other VSAG members would explain their long absence from getting out diving. After all, with more boat owners in the club and plenty of great dive days scheduled in the dive calendar, their excuses seemed a bit lame. Now I'll be a bit more understanding.

*Best Regards, Lloyd Borrett. ❖*

# VSAG Committee 2011–2012



## President / SDFV Representative

David Geekie 145 Johnston St, Newport VIC 3015 president@vsag.au.au  
0419 300 686 dgeekie@bigpond.net.au

## Vice President / SDFV Representative / Point Scorer

Greg Richards 5 Oakhurst Court, Frankston VIC 3199 vicepresident@vsag.or.au  
03 9783 4249 0417 042 839 jrichards1@hotmail.net.au

## Secretary

Alan Storen 15 Regal Court, Vermont South VIC 3133 secretary@vsag.org.au  
03 9803 3573 (H) 0417 017 446 storens@bigpond.net.au

## Treasurer

Peter Briggs 37 Blue Ridge Dr, Mooroolbark VIC 3138 treasurer@vsag.or.au  
03 9727 3947 0412 585 546 pcbiggs@bigpond.net.au

## Internal Auditor

Andy Mastrowicz 224 Wattle Valley Rd, Camberwell VIC 3124  
03 9809 0984 (H) 0402 060 711 amastrow@gmail.com

## Dive Calendar Coordinator

Graham Ellis 2A View Rd, Glen Waverley VIC 3150  
03 9803 0069 0412 100 067 graham\_ellis@optusnet.com.au

## Property/Equipment Officer

Michael Kakafikas 16 Goodwood Cres, Gladstone Park VIC 3043  
03 9338 1996 0439 044 122 didgipuss@hotmail.com

## Social Secretary / New Member Coordinator

John Lawler 7 Cloris Ave, Beaumaris VIC 3193 socialsecretary@vsag.org.au  
03 9589 4020 (H) 0414 922 916 jlawler@aapt.net.au

## Webmaster / Newsletter Editor

Lloyd Borrett 35 Courtenay Ave, Cranbourne North VIC 3977 editor@vsag.org.au  
03 5996 0033 0418 170 044 lloyd@borrett.id.au

## Assistant Newsletter Editor / Assistant Social Secretary

Cheryl Lees 5 / 67 Canadian Bay Rd, Mt Eliza VIC 3930 editor@vsag.org.au  
03 5996 0033 0448 863 455 cheryl\_marj@hotmail.com

VSAG Committee meets at 8.00 pm every 2nd Thursday of the month (except in January)

All Members Welcome

Maori Chief Hotel, 117 Moray St, South Melbourne VIC 3205

# Meeting Report

Thursday, 15 March 2012

## El Pozo Azul Cave

by Lloyd Borrett, VSAG.

We were joined at the March 2012 VSAG meeting by David Rueda Roca, a Spanish caver and diver. In 2009, David was a sherpa supporting one of the expeditions to the "El Pozo Azul" cave near the small village of Covanera (Spain).

David spoke about this amazing underwater passage and the history of its exploration. Pozo Azul has a 700 m long first sump and more than 3.5 km long second sump (max depth 72 m).

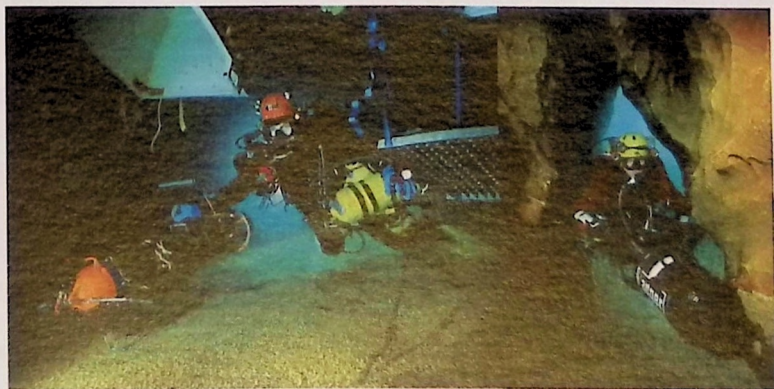
Then he showed us a film "Beyond the Limits", made by David Perez, which

documented the 2009 international expedition. Long penetrations (in 11°C water) with habitats, scooters, modified re-breathers and more are used by the cave explorers to go to the end of the line.

The 2009 expedition found the end of the second sump at a small area of dry cave they named "Tipperary". Push diver, Rick Stanton, made a brief 160 m foray into the third sump.

(During a 15 day campaign in 2011, another expedition, with many of the same people, was able to extend the known cave to a total of 9,685 m of which 9,135 m has to be done diving.)

You can look at excerpts from the video online, or buy it, at <http://bit.ly/xc7Jm6>  
❖



Divers at El Pozo Azul Cave. See also the cover photo.

# Cook Islands Diving

by Alan Storen, VSAG.

Where is Cook Island? Well there is an island in the Great Barrier Reef called Cook Island but this is not the one I visited recently.

I was on tour with a group I am involved with called the Easter Islanders – we try to visit a different island each Easter or there about. We have not been to Easter Island yet, but we live in hope (of winning Tattsлото!).

This year we went to The Cook Islands — a group of islands in the South Pacific. There are 15 main islands in the group and they cover a land area of about 2400 sq km and 2 million sq km of the Pacific Ocean.

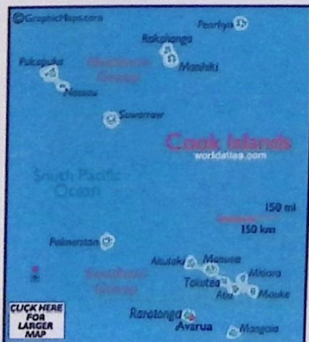
The Capital is Rarotonga — the main island of the group and population of about 14,000. This is where we stayed in a three bedroom villa. It has close links with NZ and the main currency is NZ

dollars. The indigenous people are of Polynesian descent.

These islands were named after Captain Cook, who sailed through them in 1773. They're divided into the *North* and *South* groups. The northern islands are mostly low-lying coral atolls, while the southern group generally consists of higher islands, volcanic in origin. The northern group is home to the famous Cook Island black pearls.

Long a British protectorate, in 1900 the administrative control of the islands was transferred to New Zealand. Today, even though self-governing, the Cook Islands are in a somewhat dependent association with New Zealand regarding defence and other external issues.

The lush green island of Rarotonga, ringed by white-sand beaches, and the stunning coral atoll of Aitutaki (with its blue lagoon), epitomize the beauty of the







Cook Islands, and for that matter, all of Polynesia.

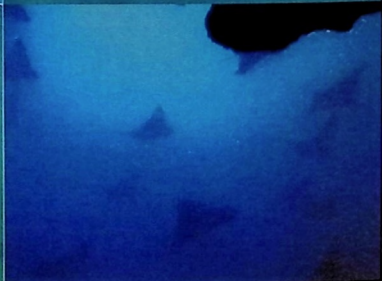
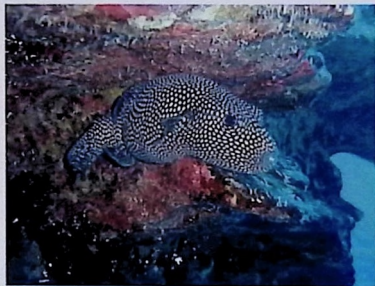
The local subsistence economy is subsidized by limited exports of agricultural products, and by foreign aid, mostly from New Zealand. Tourism is on a steady growth rate, however, the island's isolated location limits that growth.

### Getting there

We left on Saturday morning for our flight via Auckland and arrived Friday night due to the crossing of the International Date Line. The island of Rarotonga is roughly circular with a diameter of about 12km. We hired a car and happily

drove most places. It cost me \$30NZ for a plastic Cook Island License with photo!

About half the local transport was by motor bike — no helmets required unless you drove over 40 kph. Push bikes were also available but not very popular from what we could see. The speed limit was 50 kph max and often 30 kph in towns — most were in holiday mode and not in a hurry anyway! There was a public bus service which follows the coast line right around the island in both clockwise and anti-clockwise directions, at hourly intervals (island time!). One main road follows the coast and it is impossible to get lost.



### Cook Island Divers

There are four dive companies on Rarotonga but after much research on the internet the one that got the best reviews in diving forums was Cook Island Divers. I did 8 dives, all with this company, and was very happy with their service. On

many dives there was just me and the dive Instructor — we would go to the site, anchor, get wet, get back on board and return to the shore. Only on the first dive did we have a full boat — a Norwegian couple on their honeymoon, a Canadian and me.

The only incident was when we returned to the dive shop after the dive to wash our gear down and while washing my gear down I turned to see both Norwegians starkers in the shower area. Half was not a pretty site, but the other is etched in my memory! She did not come out on any other dives.

There are many dive sites around the island and I got to do the best due to low numbers on the boat.

The best are in the South and we dived many of the channels cutting the outer reef.

Not fantastic reef, and much was dead, but there were many sharks, big Eagle rays, moray eels, lion fish, turtles and other large reef fish to be seen and many smaller creatures for the muck divers — nudis, etc.

The boat was a rigid inflatable and with my shoulder still under repair I was concerned how it would go. A couple of hard pulls, but on a recent trip to the doctor to have my last op, he indicated no damage had been done, so all was good.

Hope to be back in the local water very soon. The lack of wet suit, few weights

and warm water (26C) probably helped — very easy diving!

The owner of the dive shop was Greg Williams and he comes highly recommended if you want to dive the island.

I don't think I would recommend the Cook Islands as a dive trip for VSAG but it is a very relaxing place to go and unwind, the people are very friendly, with plenty of things to do and see, the food is great and there is some good diving to do — but not a full-on dive trip!

Some photos of mine are shown here, plus some from Greg and some from the internet. They are very representative of what I saw. ❖



# Safety In Diving

## Dive, Dive, Dive... Until You Drop!



by John Lippmann  
OAM, DAN Asia-  
Pacific Executive  
Director

With the advent of  
dive computers and  
decompression soft-

ware, diving has become much more flexible. Without the inherent restrictions of the dive tables, dives tend to be far longer and more frequent, and surface intervals far shorter. The discovery of more wrecks, often in deeper water, as well as other deeper dive sites has also encouraged many of us to dive deeper.

Most divers these days use dive computers and appear to be reasonably confident that they will avoid decompression illness (DCI) as long as they dive within the limits of these devices. The reality is that the vast majority of the divers with DCI that we deal with have been using dive computers and have been diving within the limits advised by their computers.

Dive computer algorithms are based on decompression models, which are generalisations of what might be occurring within a diver's body. These models have

inherent inaccuracies and cannot cater for the broad individual variation between divers and the type of dives undertaken. The more these models are pushed to their extremes, the greater the potential for inaccuracies.

Deeper dives, longer dives, short surface intervals and repetitive diving, especially multiple repetitive diving, can all lead to higher inert gas loads, greater bubble formation and consequently less accurate decompression calculations. When these factors are combined, as they often are in current day diving scenarios, we can be inviting problems.

In a recent DAN Member publication (*Deeper with DAN*), we highlighted the case of a diver who suffered severe cerebral DCI while diving at Truk Lagoon. Looking through his dive profiles I was somewhat unsurprised with the outcome. From a dive safety perspective several concerns arose, some of which I will address here.

The diver conducted three dives each day for four consecutive days. The deepest dive done was on the last day and was to 54 msw. The average depth of all the dives undertaken was 30 msw. The length of the dives ranged from 45 to 69 minutes, with an overall average of 52 minutes of total underwater time. The length of the daytime surface intervals

ranged from 1:20 to 2:35, with an average of 1 hour 53 minutes.

These dives are quite typical of what many divers complete at Truk Lagoon (and some other dive destinations). To further illustrate this point, DAN was contacted about two other divers in Truk that also suffered from DCI over this same three-day period.

Divers need to be aware that deeper diving is associated with a higher risk of DCI and the resulting DCI is more likely to affect the nervous system. Very long dives also carry a higher risk of DCI. U.S. Navy data have shown that this risk increases substantially for dives deeper than 30 msw or longer than 45 minutes.

### **What about surface intervals?**

Many years ago when the HMAS Swan was sunk in Western Australia, the local recompression facility witnessed a dramatic increase in divers requiring treatment for DCI. All of the divers were required to follow a set dive plan with two dives separated by a one-hour surface interval. In an attempt to try to address the situation, the dive operator increased the surface interval to two hours, leaving all other aspects of the diving protocol unchanged. Subsequently, there was a very substantial reduction in DCI cases, which appears to have resulted from the longer surface interval.

Bubbles can often be found in a diver's venous blood after surfacing from a dive and this is common after recreational dives. These bubbles are usually detectable within the first hour after diving and can continue to appear in peak numbers for several hours. Therefore, in most circumstances, it is a good idea to extend surface intervals as long as possible between dives. Although it is often convenient and relatively common on dive boats to have surface intervals of around one hour or so, it is probably safer to extend these to at least two – three hours, preferably longer, especially after deeper dives.

### **So, what does this all mean?**

In reality, relatively few divers suffer DCI given the enormous amount of diving that takes place around the world. However, for those that do, it can be a very unpleasant, disruptive and, in some cases, life-changing experience. Therefore, it is wise to balance the benefits of the extra depth, dive times and dives against the potential problems that can arise, and make an informed choice about the level of risk one is willing to take.

Fortunately, our diver in this case fully recovered from his DCI experience. Not all divers do.

<http://www.danasiapacific.org> ❖

# Dive Reports

Sunday, 15 January 2012

## Pope's Eye & Eliza Ramsden

by Michael Ngai, VSAG.

Lloyd's Boat:

Lloyd Borrett, Cheryl Lees, Christine Reynolds, David Flew.

John's Boat:

John Lawler, Benita McDonough, Dickon Roddie, Andrew Quested, Michael Ngai.

First dive this year with JL and boat, really looking forward to yet another great day diving with VSAG. Not to mention the hot dogs that JL has promised in response to Alan Beckhurst's friendly gourmet lunch challenge!



Photo: Lloyd Borrett — Andrew, Michael, JL and David deciding what we'll do.

Well done JL, the hot dogs were absolutely delicious. The political thing to say is, "They were just as good as Alan's ones!". Thus, "There needs to be a round 2 to decide which ones are better!".

### Dive #1:

Site: Pope's Eye

Bottom Time: 47 minutes

Max Depth: 10.1 m

Bottom Temp: 18 C

Visibility: 4-6 m

Overcast and fairly calm day inside the bay, original plan was one dive outside the bay and then the slack dive at 13:43.

Having recently got my boat license, JL kindly offered me some practice lessons in getting us to the heads. So far so good, except Lloyd had taken off ahead of us and we were a fair way behind.

JL pointed at what looked like a speck of dust and said that was Lloyd's boat and asked me to follow it. I could barely make out if the boat that I was following was indeed Lloyd or not — well let's assume it was and not the Spirit of Tasmania!

Got to the heads, quickly changed boat drivers and JL had the challenging task of getting us out. It was a very rough crossing, with waves breaking left right and centre and we were zig zagging along. A

few minutes in, JL decided it wasn't safe for the crossing and radioed Lloyd to turn back.

We turned around, JL practicing his "boat surfing" skills riding the waves in through the heads. I was impressed! Wondered if I'd ever get this good at driving a boat. A few surfs later and we were safely through, Lloyd following not too far behind.

Quick discussion between the two boats and we decided Pope's Eye was a good alternative. Plan was for Dickon, Benita and myself to do this dive, then JL and Andrew would do a check out drift dive elsewhere.

There was a fairly strong current running during the dive which had kicked up a fair amount of sand and particles. It actually looked like it was snowing underwater! But that surely didn't keep the fishes at home.

There were plenty of fishes all around... Um... Yer... There were many different looking ones! (I could never remember fish names) Look! There's my favourite male Blue Throat Wrasse! A Shaw's Cow Fish which I chased after with my video camera but could never catch up close enough for a good footage. Despite looking like a "ball" these buggers swim pretty fast!

An attempt was made to "swim" against the current back inside the "eye" where

JL's boat was. Well, to me it was more like a crawl, grabbing onto rocks and kelps so I didn't get washed away (probably to Tasmania again) by the current.

Oops, just broke a bunch of kelp off the rocks. Did someone say it was a marine reserve? Hopefully no fishery officers around to witness me destroying the habitat!

In the end we just had to surface due to the strong currents and JL was there ready to pick us up!

#### **Dive #2:**

Site: Eliza Ramsden

Bottom Time: 38 minutes

Max Depth: 20 m

Bottom Temp: 19 C

Visibility: 4-6 m

More discussion between the boats and a decision was made for Eliza Ramsden as our second dive. JL was feeling a little cold after the first dive and kindly offered



Photo: Benita McDonough — Dickon Roddie  
clambering over the rocks.

to man the boat while the four of us dived. I was buddied up with Dickon, while Andrew and Benita were the second group.

Back-rolled into the water at 14:15 and we made our descent. The water was a little milky with a lot of floating particles all around. There were many fishes too... err... Yer fishes, not as many Blue Throat Wrasse but there's yet another Shaw's cow fish. (Hey, I didn't feel like anymore Googling for names ok?)

We did a few rounds of the wreck, and started to make our ascent back to the surface. I practiced breathing my way back up without any finning and thought I did pretty well, only losing control a few times. Patted myself on the back during the safety stop and soon we found ourselves back in the safety of JL's boat.

Trouble struck when Lloyd tried to retrieve the shot. The current must have turned and have wrapped the line around the wreck! From our boat we could see David making an attempt to free the shot to no avail. Andrew in our boat still had his kit assembled and offered to dive down in an attempt to free the shot. Andrew jumped in while everyone kept an eye out at the surface.

It was getting close to 3 pm and shipping was about to resume and we still had not seen any signs of Andrew. We waited a bit, expecting Andrew to surface at any

moment as he'd been down for a while by now. Soon enough Andrew surfaced with shot in hand! What a relief!

I quickly pulled the rest of the shot and buoy (plus plenty of entangled kelp) back onto the boat while Dikon helped Andrew ungear and get back onto the boat.

Another great day of VSAG diving done, time to head home! An eventful day with the failed Rip crossing attempt and having to retrieve the shot before shipping arrived but I'm sure everyone had fully enjoyed the dive plus JL's hot dogs!

#### Video:

Please view my video of the dive <http://vimeo.com/user8893632/popescyclizaramsden20120115>

#### P.S.

Anyone wanting to watch the video of the dive please see above. Sorry for the lack of lights and colour. I do accept donations for the "Get Michael a video light fund". ❖



Photo: Benita McDonough — Dickon Roddie and Michael Ngai between dives.





Photo: David Flew — Cheryl Lees and Lloyd Borrett clambering over the rocks to get back into Pope's Eye. Or as David put it... "Seals in Port Phillip Bay"

## A Medical Problem

An old woman came into her doctor's office and confessed to an embarrassing problem.

"I fart all the time, Doctor Johnson, but they're soundless, and they have no odour. In fact, since I've been here, I've farted no less than twenty times. What can I do?"

"Here's a prescription, Mrs. Harris. Take these pills three times a day for seven days and come back and see me in a week."

Next week an upset Mrs. Harris marched into Dr. Johnson's office.

"Doctor, I don't know what was in those pills, but the problem is worse! I'm farting just as much, but now they smell terrible! What do you have to say for yourself?"



"Calm down, Mrs. Harris," said the doctor soothingly. "Now that we've fixed your sinuses, we'll work on your hearing!!!"

Saturday, 4 February 2012

## North Wall Corner and Ocean Grove Reefs

by John Lawler, VSAG

Well basically a very good dive day. Had 5 with me, and Alan Beckhurst had 6, so we all had company.

We dived the North wall corner. Bay conditions were very good... the big winds earlier in the week stirred the viz up a bit yet we still had 15-20. Found a

nice 3 kg cray, now steam cooked and in the freezer.

Went outside and dived the reefs off Ocean Grove and Lonsdale. All very nice but the crays were all gone... heaps of cray pots everywhere! No abs either!

Wind was easterly and from time it got a bit choppy but very low swell. Some excellent reefs found so the diving was good and interesting.

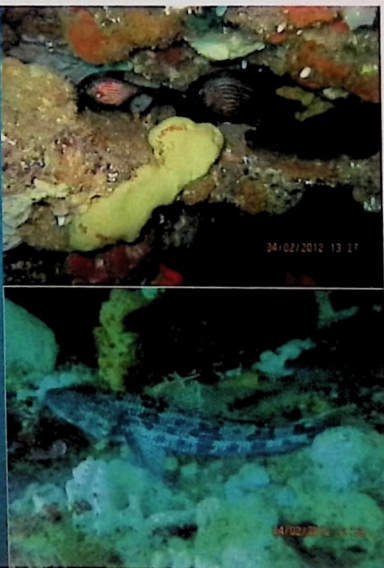
(Mick Jeacle, Greg, Jessica and Viapree were at the ramp getting ready to launch but were doing a private dive!)



Photos: Benita McDonough — See inside front cover, plus these two pages.

In all a very fine day. Good fun easy diving. Happy to say the run home was the best ever... the traffic so light and fast... after the day and all it takes to do it all (being a boatie).

After a great meal Yvonne had for me and a few coldics and a glass or two (well 4 actually) of red, hot shower fell into bed at 9pm... Tired but happy. ❖



## Hey Older Crowd

An older gentleman was on the operating table awaiting surgery and he insisted that his son, a renowned surgeon, perform the operation.

As he was about to get the anaesthesia, he asked to speak to his son.

"Yes, Dad, what is it?"

"Don't be nervous, son; do your best, and just remember, if it doesn't go well, if something happens to me, your mother is going to come and live with you and your wife."

Saturday, 18 February 2012

## Rob's Reef and Coogee

by John Lawler, VSAG.

Weather good... sunny, light winds until mid afternoon when the predicted South-easterly kicked in. A very good dive day.

Three boats. JL with 5. Jeacle with 4. Geekie with 3.

My crew dived the best dive in the bay Rob's Reef... sensational! Viz about 10 metres... heaps of fish and silly, silly me messed up bagging a 10 pounder cray... not happy!

My crew was Benita McDonough, Dave Kelly, David Flew and Andrew Ousted. Dave Kelly drove and we four dived.

Jeacle's crew had Jessica, Greg Richards and Viapree. They dived up Lonsdale way.

Geekie's crew did Rob's also, but David and Pam did a (long!!) pre-slack drift. Michael Ngai drove the boat!

Went outside. Rip a bit testy.

Dave Kelly and I dived a 22 metre reef 100 metres from the ex HMAS Canberra. Found some crays... no abs.

Geekie dived Chimney Rock. Some of Jeacle's crew did the J4 Sub.

Next dive for my crew was the Coogee. We wanted to do the J4 Sub, but Dive Victoria had just dropped 20 divers in so the Coogee was the plan. We shot the site right in the middle... wow!

All came up happy. First dive here for Andrew.

Second dive for Dave Kelly was a drift off the Quarantine Station. He had some mental marks and it paid off. Came up with a brilliant old jar in mint condition. No marks to identify it however.



Photos: Benita McDonough — Above: JL on the hunt.  
See also: next two pages, plus inside back cover and back cover.

We all started out basically together but over the day each boat did separate diving.

In all, one out of the box. Good fun from a great bunch on my boat.

Round trip 52 kms. Boat went well... just serviced...new AM/FM radio fitted... so nice music at last. ❖





A Blonde was sent on her way to Heaven. Upon arrival, a concerned St Peter met her at the Pearly Gates.

'I'm sorry,' St Peter said; 'But Heaven is suffering from an overload of goodly souls and we have been forced to put up an Entrance Exam for new arrivals to ease the burden of Heavenly Arrivals.'

'That's cool' said the blonde, 'What does the Entrance Exam consist of?'

'Just three questions' said St Peter.

'Which are?' asked the blonde.

'The first,' said St Peter, 'is, which two days of the week start with the letter T?'

'The second is 'How many seconds are there in a year?'

'The third is 'What was the name of the swag-man in Waltzing Matilda?'

'Now,' said St Peter, 'Go away and think about those questions and when I call upon you, I shall expect you to have those answers for me.'

So the blonde went away and gave those three questions some considerable thought (I expect you to do the same).

The following morning, St Peter called upon the blonde and asked if she had considered the questions, to which she replied, 'I have.'

'Well then,' said St Peter, 'Which two days of the week start with the letter T?'

The blonde said, 'Today and Tomorrow.'

St Peter pondered this answer for some time, and decided that indeed the answer can be applied to the question.

'Well then, could I have your answer to the second of the three questions?'

St Peter went on, 'How many seconds in a year?'

The Blonde replied, 'Twelve!'

'Only twelve?' exclaimed St Peter, 'How did you arrive at that figure?'

'Easy,' said the blonde, 'there's the second of January, the second of February, right through to the second of December, giving a total of twelve seconds.'

St Peter looked at the blonde and said, 'I need some time to consider your answer before I can give you a decision.'

And he walked away shaking his head.

A short time later, St Peter returned to the Blonde.

'I'll allow the answer to stand, but you need to get the third and final question absolutely correct to be allowed into Heaven.

Now, can you tell me the answer to the name of the swagman in Waltzing Matilda?'

The blonde replied; 'Of the three questions, I found this the easiest to answer.'

'Really!' exclaimed St Peter, 'And what is the answer?'

'It's Andy.'

'Andy?'

'Yes, Andy.' said the blonde.

This totally floored St Peter, and he paced this way and that, deliberating the answer.

Finally, he could not stand the suspense any longer, and turning to the blonde, asked 'How in God's name did you arrive at THAT answer?'

'Easy' said the blonde, 'Andy sat, Andy watched, Andy waited til his billy boiled.'

And the blonde entered Heaven.

# New Zealand Coastal Marine Casualties

*By John Lawler, VSAG, with extracts taken from the New Zealander.*

Most likely the Australian dive community was excited as the distressing news that the Russian cruise liner Mikhail Lermontov had sunk off Wellington, New Zealand. (VSAG divers were on the wreck not long after but that's another story for another time.)

New Zealand is in the news again with a container ship now broken up and spilling oil and containers into the pristine waters.

It seems that the coastal casualties have been a big part of maritime history in New Zealand stretching back as far as 1848 with many ships wrecks around Wellington.

So there is a diver's paradise as a result and many can be dived although not all after all this time. Some wrecks are just nuts and bolts and a keen eye needed to find them.

## **Subraon:**

Wrecked in Breaker Bay, October 26th, 1848. Not too much left to see after 163 years.

## **Tui:**

Had it's bottom ripped out en route to Wellington on November 1st, 1886 and now lies 500 metres north of Barrett Reef... the site can be dived but a boat is needed as it is way out.

## **Willie McLaren:**

While passing Steeple Rock she scraped bottom and sank 300 metres off Scatoun Beach on November 5th, 1889. The wooden ship was carrying a cargo of coal.

## **Halcione:**

Still some complete sections of this iron hull ship exist. This Scottish built ship sank in bad weather January 8th, 1896 on it's way from London to Wellington and the wreck lies 1 km south of the Pencarrow sewer outlet and 30 metres offshore. Some say it is a stinker of a dive!

## **Nambucca:**

The wreck lies near a lone rock now named Nambucca Rock, 1 km west of Sinclair Head and around 600 metres from shore. Wreck lies in about 11 metres but is prone to tidal currents so it suits boat diving. Sank on January 16th, 1905.



**Woolahra:**

This 61 metre iron barque is rated as one of Wellington's more complete wrecks and lies just 30 metres offshore in a small bay inshore off the Karori Rock Light. It ran aground at midnight while sailing to Sydney on July 14th, 1907.

**Devon:**

Sank on August 25th, 1913. At 128 metres this is Wellington's largest wreck. A steel steamer, she ran aground in heavy seas 300 metres north of Pencarrow Head and still much of the wreck exists.

**Defender:**

An unusual occurrence for this wreck. The steamer caught fire at the wharf. It was towed clear of the wharf and drifted to Maiti/Somes Island where, with 1132 cases of motor spirit on board, it exploded and sank. This was on August 2nd, 1918.

**Magic:**

Not much left. A few pieces of steel is all that remains of this schooner which sank after it was hit by a gale in March 1921.

**South Sea:**

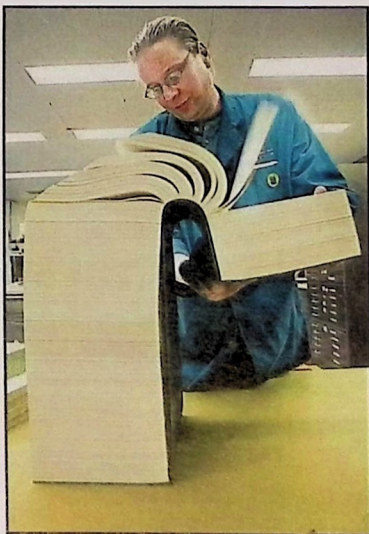
This steel steamer sank after colliding with an inter-island ferry while on patrol in the harbour as a navy mine sweeper. Sunk on 19th December, 1942. This wreck is almost intact and sits upright on the ocean floor 1.5 kms northeast of Pt Haswell in 15-20 metres of water.

**Wahine:**

Rated as the most famous wreck in Wellington harbour and sadly one of the worst maritime disasters! She sank in a huge storm after being blown off course and struck Barrett Reef. 51 persons died and the wreck was cut up and sold.

**F69: former frigate  
HMNZS Wellington**

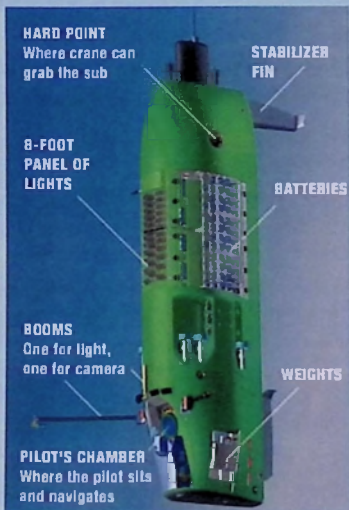
Bought by the Sink F69 Charitable Trust for \$1, she was sunk off Houghton Bay on November 13th, 2005 as an artificial reef and dive site. The wreck has since broken into three pieces but is still a very popular dive site. ❖



The book "Understanding Women" has finally arrived in paperback.

# Diving the web

by Lloyd Borrett, VSAG



## Deepsea Challenge

As this edition of *Fathoms* goes to press, famous filmmaker and National Geographic Explorer, James Cameron, is preparing to embark on a dive to the ocean's deepest point — the Mariana Trench's Challenger Deep near Guam — which lies 10.99 kilometres (6.83 miles) below the ocean surface.

We know less about the deepest points on our planet than we do about the surface of Mars. Twelve men have walked on the surface of the moon and maybe 500 have travelled to space, but only two have visited the very deepest point of the ocean. They reached it in the bathyscaphe Trieste on January 23, 1960 and stayed for just 20 minutes.

James Cameron will be going there solo, taking about two hours to reach the seafloor and will have some six hours or more on the seafloor. He'll explore the deep-ocean frontier, conduct tests, collect samples and document the experience in the high-resolution 3-D for which he's known globally.

The Deepsea Challenger submersible engineering team, led by Australian co-designer and pilot Ron Allumhas, made historic breakthroughs in materials science, incorporated unique approaches to structural engineering, to create a unique craft capable of withstanding the pressure at full ocean depth. The craft was largely designed and built by the predominantly Australian team in Sydney.

On Tuesday March 6th, 2012 on a test dive, Cameron dived deeper than any other human has on a solo mission to 8,000 metres to the bottom of the New Britain Trench, off Papua New Guinea.

Read all about it, plus follow the progress of the expedition online:  
<http://deepseachallenge.com>



## HONEYMOON DIVE

*The real story behind the tragic honeymoon death of Tina Watson*

LINDSAY SIMPSON and JENNIFER COOKE

Most of us would have read or seen reports about the tragic honeymoon diving death of Tina Watson on her first dive on the SS Yongala off Townsville, plus the Australian and US trials of her husband Gabe Watson.

Michael McFadyen was involved as an expert witness for the US trial. He has written a fascinating account of what he believes happened, the bungled Queensland Police investigation, the Australian trial's miscarriage of justice, plus the acquittal of Gabe Watson in the US trial. It's an absorbing and highly informative read.

Michael has published it online at:  
[www.michaelmcfadyenscuba.info/viewpage.php?page\\_id=523](http://www.michaelmcfadyenscuba.info/viewpage.php?page_id=523)

# STOP.

Don't Enter the Water  
Without DAN Protection



Emergency Medical Evacuations can cost more than \$100,000 and that doesn't include treatment costs.

**Be Prepared. Join the Experts  
In Dive Accident Management**



[www.danasiapacific.org](http://www.danasiapacific.org)

# It went something like this...

by John Lawler, VSAG

*A true dive story. (Names are changed to protect the innocent!)*

## Monday 19/12

Pierre: Pierre here mate. How you are doing? Mate the conditions look good for Friday and I reckon I'll take the day off and see if I can get a crew together for a pre Christmas cray dive out of Flinders. Are you interested?

Jack: OK... Yep count me in... Will you do the ring around?

Pierre: Yep... Talk later...

## Tuesday 20/12

Jack: G'day Pierre... Any luck with a crew?

Pierre: Na, no luck so far... What's his name is too busy... and Fred is going to a work do.. You got any ideas?

Jack: I'll have a think... Talk later... By the way, are we going in your boat as I get the feeling you want to run with this dive?

Pierre: Look mate I'm flat out on a roof job... Could we use yours?

Jack: Mmmmm... OK but we will now need another diver to make up the crew

of 4... Puts the pressure on numbers mate!

## Wednesday 21/12...am

Jack: G'day Big Fella.. Look, planning a dive at Flinders Friday and thought you might be interested, yep?

Big Fella: Na... got some stuff to do with Anniebelle so count me out... But you can have my crays... (laughs always!)

Jack: G'day Dicko... Jack here... Planning a cray dive Friday at Flinders. Are you available and interested?

Dicko: OK on all fronts... Count me in and email all the details... Sounds good and I need a cray and a dive so happy you called... Thanks for thinking of me mate.

Jack: Jack here Pierre.... Mate I have one keen diver available... We now have three so we only need one more and we are looking good for a crew.

Pierre: Mate getting tight and running out of time... I'll sleep on this one.

## Thursday 22/12...am

Jack: Hi Slim, Jack here... Sorry for the late call but planning a dive at Flinders tomorrow... Cray bash... Conditions look good... My boat and we have three

up and wonder if you are available and need a cray or two for Xmas?

Slim: Mate, not too sure on this as we had planned to go to Chris' but look I'll get back to you... Probably later today if it is a goer... Thanks for the call.

Jack: Pierre, so far it looks like three... Might get lucky with a fourth and will advise later tonight.

#### **Thursday 22/12...pm**

Slim: G'day Jack, Slim here... Yep I'm all clear for the dive... Is it two tanks 'cause I'll have to get one from Big Fella...

Big Fella: G'day Jack, Big Fella here... change of plan... Any space available for a small guy as I'd like to join the dive tomorrow?

Jack: You bet and we now have a crew of five so usual format as in the good old days... Two tanks, lunch and all the normal goodies.

#### **Thursday 22/12...pm...late**

Pierre: Jack here mate... Good news... We're now five divers... The diving gods have smiled on us... See you at Flinders at 8.30... Can't wait for this one... Was meant to happen for sure.

#### **Friday 22/12...Flinders Beach 8.30am**

Jack: Hi all... Right on time... Great... Let's get the boat in... Great conditions out there... Wow!! High tide will be

tricky... Might get the boat in without taking it off the trailer... Let's try that...

#### **8.45am**

Jack: Lads it 'aint gonna work and the trailer wheels are stuck... I'll pull the trailer out and try on higher ground and put the beach launch wheel on... OK... now all push... We're in... All good.

#### **9.15am**

Slim and Big Fella get the first dive...40 minutes later Big Fella pops up... three small crays... was just about to give the dive away as the crays were scarce but came upon a good reef.

Slim pops up with a small cray in hand... catch bag mate? Lost it in the kelp! Just below where I lost my bag is some really good reef... try it out.

#### **11.15am**

Jack, Pierre and Dicko get the second dive. All in on the buoy lines... Jack sees Pierre under a ledge... Comes onto good looking reef and spots a mass of yellow in the weed... Slim's catch bag... So is on the good reef... Jack bags first cray... Dicko not in sight... Pierre sees Jack and shows only a feeler... Bad luck... Jack sees another cray... Bagged it... Other divers not in sight but time to exit... All divers back in boat... Only Jack's two crays... Boat catch so far 5 crays for 5 divers. Big smile on Slim's face as his all

time favourite and sentimental catch bag has been saved... Marriage as well!

Pierre advises that the big sip of amber liquid the night before has taken hold and has decided not to dive... Slim has also had enough... So Dicko, Big Fella and Jack get another dive... Where?

### 12noon

Big Fella: Move closer to that reef down there... The big crays are there...

Jack: Not too sure about that Big Fella but terrain looks ok... In for the last hunt.

Dicko and Jack cover a lot of territory... Reefs covered with very thick kelp... No crays despite hard work moving the kelp away from the deep ledges... Dive over.

Big Fella waving away about 300 metres away... Collect him... No crays!

### 1.30pm

Jack: Well a good day out huh!! Low winds, no swell, five crays and one catch bag... Lots of fun... Back to the beach to haul the boat out... All done with ease.

The usual debrief at the Flinders Pub closed off another spectacular dive day.

So, what you now need to work out is, who are Slim... Dicko... Pierre... Big Fella... and Jack? ❖

## Children Are Quick

Teacher: *Why are you late?*

Student: *Class started before I got here.*

Teacher: *Maria, go to the map and find North America.*

Maria: *Here it is.*

Teacher: *Correct. Now class, who discovered America?*

Class: *Maria.*

Teacher: *John, why are you doing your math multiplication on the floor?*

John: *You told me to do it without using tables.*

Teacher: *Glenn, how do you spell 'crocodile'?*

Glenn: *K-R-O-K-O-D-I-A-L.*

Teacher: *No, that's wrong.*

Glenn: *Maybe it is wrong, but you asked me how I spell it.*

Teacher: *Donald, what is the chemical formula for water?*

Donald: *H-I-J-K-L-M-N-O.*

Teacher: *What are you talking about?*

Donald: *Yesterday you said it's H to O.*

Teacher: *Winnie, name one important thing we have today that we didn't have ten years ago.*

Winnie: *Me!*

Teacher: *Glen, why do you always get so dirty?*

Glen: *Well, I'm a lot closer to the ground than you are.*

Teacher: *Millie, give me a sentence starting with 'I.'*

Millie: *I is...*

Teacher: *No, Millie... Always say, I am.'*

Millie: *All right... 'I am the ninth letter of the alphabet.'*

# Underwater time bombs

*from Islands Business*

[www.islandsbusiness.com](http://www.islandsbusiness.com)

As the United States fought its way across Micronesia during World War Two, it launched a strike against Japanese naval forces that could hinder the US advance on the Japanese mainland.

In February 1944, the US Navy mounted Operation Hailstone — a major naval and air attack against Truk Atoll in the Japanese territory of the Caroline Islands, the home base for Japan's Imperial Combined Fleet.

Even though some ships escaped before the attack, the initial US air assault on 16 and 17 February 1944 sank a good part of Japan's remaining naval forces in Micronesia.

More than 50 destroyers, cruisers, merchant ships and support vessels — including at least three oil tankers — were left on the bottom of Truk Lagoon.

Today, Truk is renamed Chuuk, one of the four states of the Federated States of Micronesia (FSM). Nearly 70 years on, these shipwrecks are a looming time bomb for the environment and inhabitants of Chuuk Atoll.

The shipwrecks are a major tourist attraction and Chuuk Lagoon is a paradise for divers. But decades of corrosion, shifting

tides and storms have weakened many of the wrecks.

There are already small oil leaks and growing concern that more oil contained in the ruined vessels will leach into the marine environment.

Last September, FSM President Emmanuel Mori stood before the United Nations General Assembly and called for international support to address this looming environmental catastrophe.

"More than sixty years ago, my island country, the Federated States of Micronesia, drew worldwide attention as a battleground in the Pacific conflict.

"Today, the remnants of an estimated sixty shipwrecks from that conflict are posing threats to the lives of our people, our environment and the marine ecosystem," he said.

"Approximately 32 million litres of oil contained in the bellies of the wrecks are a ticking environmental time bomb.

"Leading experts on underwater corrosion have warned that the shipwrecks will collapse and when they do, we believe oil from these wrecks could create a spill on a massive scale with an impact comparable to the disaster last year in the Gulf of Mexico."

## Thousands of shipwrecks

The Federated States of Micronesia is not the only Pacific nation to face this problem — there are over 3,800 World War Two (WW2) wrecks scattered throughout the region.

During the Pacific War, American, Japanese, British, New Zealand and Australian ships were sunk in a number of battles. Many US and Japanese warships were lost in the open sea during the Battle of Midway and the Battle of the Coral Sea, but a range of naval and merchant shipping was sunk in more shallow waters in the north Pacific, including Pearl Harbor (Hawai'i), Chuuk Lagoon (FSM), Betio, South Tarawa (Kiribati), and atolls across the Marshall Islands.

In Solomon Islands, Japanese ships litter the area off Guadalcanal known as the Slot and the name Iron Bottom Sound reflects the tonnage of shipping sunk in these waters.

Many vessels were also wrecked in waters off Papua New Guinea as US, Australian and Japanese forces fought for control of the islands.

Recent maritime accidents — such as the break-up of the freighter *Rena* in New Zealand or the grounding of the Italian cruise liner *Costa Concordia* — highlight the risk of oil spills from beached or stranded vessels.

But in a 2005 paper, marine researcher Rean Monfils Gilbert argued that “there is a significantly larger global marine pollution threat from the over 7,800 sunken World War Two (WW2) vessels

worldwide, including over 860 oil tankers, corroding for over 60 years at the bottom of the world's oceans”.

“World War Two was the single, largest loss of shipping in a relatively short period of time the world has ever witnessed,” Gilbert says.

With support from the Secretariat of the Pacific Regional Environment Programme (SPREP), Gilbert compiled a database on WW2 shipwrecks across the Asia/Pacific region.

The database shows that at least 3,854 sunken vessels with a total tonnage of more than 13.6 million tonnes are located across the Pacific Ocean.

As well as aircraft carriers, battleships and smaller civilian and military vessels, there are at least 332 sunken fuel tankers and oilers on the bottom of the Pacific.

## Threat to the environment

The 1944 raid on Chuuk Atoll left one of the largest concentrations of sunken vessels. As evidence mounts that these vessels are beginning to leak oil into the lagoon, the FSM government is raising the heat, calling for support from the “flag nations” — countries like Japan and the United States that owned the ships at the time of their sinking and are still responsible for the vessels on the bottom of the ocean.

Around the region, some of the more accessible underwater wrecks have important cultural and economic value.

In recent decades, WW2 battle sites have been an important source of tourism as



old soldiers tour the region where they fought as young men. The shipwrecks still have a historical and spiritual role as war graves.

Many underwater wrecks in Micronesia (from the Second World War or ships sunk at Bikini Atoll during post-war nuclear testing) serve as important dive sites that attract tourists from around the world.

The wrecks also retain important biological functions, acting as artificial reefs in lagoon environments and a vibrant source for marine biodiversity.

In spite of these economic and environmental values, many vessels still contain fuel oil, other toxic chemicals or old bombs and ammunition (known as unexploded ordinance or UXO).

These cargoes are potential hazards as saltwater corrosion is steadily weakening metal, wooden and rubber parts on the underwater wrecks.

The rate of corrosion varies according to a range of factors. Wrecks in shallow lagoon waters are exposed to warmer temperatures and usually deteriorate at a faster rate than wrecks located in colder deep water locations.

The stability of some shipwrecks is precarious, because submerged sites are vulnerable to damage that can breach fragile spots or expose fresh metal to corrosion.

As well as storms and tidal shifts, wrecks are vulnerable to human impacts (boat anchors, shocks from dynamite fishing or tourists taking objects).

For vessels carrying large amounts of fuel oil, known as bunker fuel, accidents or damage could cause catastrophic damage to the marine environment.

Some oil products leaking from underwater sources will evaporate in the open air through wind and warm water, but remaining amounts can be carried by the wind and tide into sensitive environments, such as fishing grounds, reefs or beaches and mangroves of nearby islands.

Speaking to **Islands Business**, corrosion expert Ian McLeod from the West Australia Museum agrees that the problem of oil leakage is urgent, as some shipwrecks could start to collapse over the next decade.

“Without active management of the risk of oil leaks, there is a likelihood of fish breeding in mangroves being wiped out.” McLeod said.

Anthony Talouli, the Pollution Advisor with the Secretariat of the Pacific Regional Environment Programme (SPREP), agrees that there is a particular problem with bunker fuel, which is very slow to break down in the ocean environment.

“Heavy bunker fuel is very persistent,” says Talouli. “It will last a long time in tropical waters. Some vessels are also sunk at very deep levels, so it’s not easy to extract the oil. It’s a very costly exercise.”

## Leaks in Chuuk Lagoon

In her study of WW2 wrecks, marine researcher Gilbert notes: "The location of oilers and oil tankers, both military and merchant, is of prime concern. These vessels pose a higher risk due to the large quantities of oil carried on board at the time of sinking."

Amongst the shipwrecks in Chuuk Lagoon, there are three oil tankers named Hoyo Maru, Shinkoku Maru and Fujisan Maru.

Over the last decade, the Chuuk Historic Preservation Office and Department of Marine Resources have worked with SPREP and overseas researchers to conduct technical studies of these vessels and determine the source of oil slicks found on the surface of the lagoon.

With potentially millions of litres of fuel oil still stored in these vessels, researchers need to conduct costly assessments to determine the amount of oil aboard each vessel, the risk of leakage and the impact that this might have on the surrounding environment.

In July and August 2008, a team from the environment group Earthwatch led by Dr Bill Jeffery conducted searches of WW2 wrecks in Chuuk and found that oil seemed to be leaking from two sites.

In August 2008, a long slick was found to be coming from Hoyo Maru — an oil tanker with a carrying capacity of 95,000 barrels of oil.

The ship is lying upside down on the seabed and the hull is broken near the bridge.

On 8 August, a small slick was located south east of the island of Uman, near the Rio de Janiero Maru, a former passenger vessel that was converted to a support ship for submarines.

These two ships are not the only potential sources for leaks and there are other vessels at risk including the Fujisan, Nippo Maru, Kiyosumi Maru, Hanakawa Maru and San Francisco Maru.

As noted in the 2008 Earthwatch report: "From the corrosion surveys, it can also be seen that some sites are receiving numerous and ongoing bangs from dynamite fishers.

Coupled with impact from boat anchors and storms, the stability of some shipwrecks is precarious. If this included a full oil tanker, it would have major environmental consequences."

In April 2009, SPREP's Talouli visited Chuuk and worked with FSM government staff to study some vessels. Talouli carried out a refresher course with the Chuuk oil spill response team and conducted a Shoreline Clean-up Assessment Technique (SCAT), involving visits to the wreck sites, studying ocean currents and then determining the direction of a potential oil spill.

With marine experts Trevor and Gilbert, Talouli has prepared a technical assessment of the sunken tanker Hoyo Maru and found that if there were a serious breach, "the majority of the main islands of Chuuk Lagoon are at risk from an oil spill from the Hoyo Maru with the island of Fefan at most risk. Shoreline impacts

are possible on the islands of Fefan, Dublin, Moen, Parah, Udot and Lidot”.

Their Strategic Environmental Assessment presented to the Chuuk Government notes: “Negative effect on this reef would cause a disruption of the fishery which in turn would affect the people of Chuuk Lagoon as their food source is disrupted. With the fishery disrupted, the locals of FSM would have to find alternative food sources.”

Researchers note, however, that there are methods available to delay corrosion rates, giving time to assess the threat of hazardous materials and find the technical and financial resources needed to remove them.

“We know how corrosion works in these wrecks, and there are techniques for remediation,” McLeod told **Islands Business**.

“Corrosion rates drop with the water depth, so we’re lucky and can focus on some wrecks in shallower waters where there’s easier access.

“The first step is that you need to look at each wreck and assess the options. In some wrecks, there may not be many problems, but those holding major reserves of fuel oil or unexploded ordnance may need urgent attention.

After assessment, you can then decide amongst a range of options: in-situ bioremediation (such as using bacteria to break down the oil); stabilising the metal by using anodes; and preparing the ships for a technique known as hot tapping.”

All this costs money! The high cost of removing oil from WW2 wrecks was highlighted in 2001-2003, when leaks from the sunken tanker USS Mississinewa in FSM’s Yap State led to a costly clean-up and remediation effort. US Navy and salvage operators removed nearly 5 million gallons of oil from at a cost of more than \$5 million.

### **Lobbying for support**

The 2001 Mississinewa disaster spurred action at regional level. At the SPREP meeting that year, the regional environment organisation was asked to formulate a strategy to address the pollution risk posed by the many shipwrecks across the Pacific.

In 2002, under its Pacific Ocean Pollution Prevention Programme (PACPOL), SPREP developed a regional strategy “to address marine pollution from World War II shipwrecks and to assess and determine the extent of pollution risk posed by these vessels to the islands nations of the Pacific and their resources.”

A year later, however, SPREP member countries decided that the Apia-based secretariat would take no further direct action on the strategy and could simply offer technical assistance to member countries.

Given the range of pressing environmental and economic pressures facing Pacific Islands Countries from climate change to unregulated logging and overfishing, the hidden time bomb of underwater wrecks is low on the regional agenda.

The real work of removing oil would need to be carried out by the affected country and the flag nation responsible for the wreck.

The core problem is that countries like Papua New Guinea, Solomon Islands and FSM lack the financial and technical resources to urgently address potential leakages. Beyond this, the legal responsibility for the sunken vessels and any remaining cargo in the wreck (whether a military or civilian ship) resides with the government that had control of that vessel at the time of its sinking.

For this reason, the Japanese Government has sovereignty or ownership of more than 85 percent of the vessels sunk in the Pacific Ocean. Other "flag nations" with responsibility for many vessels include the United States, the United Kingdom and Australia.

According to Gilbert, these governments all accept that "the vessels and their contents are flag state (government) property no matter where they rest, and this sovereignty does not diminish with depth of water nor passage of time. These wrecks are also entitled to special respect as war graves and any attempt to interfere or salvage the vessel or contents without the expressed permission of the flag state would be regarded as a serious breach of sovereign immunity."

In recent months, FSM President Mori has been at the forefront of efforts to spur action by the flag nations. In 2011, the FSM government formally wrote to the embassies of Japan and the United States,

the two nations whose flag was flying over most of the vessels when they were sunk in FSM waters.

The issue was then taken to the Pacific Islands Forum leaders meeting in Auckland last August, to gain regional support.

The 2011 Forum communique "noted the risk to the environment posed by oil leakage from WW2 shipwrecks in the region and called for the safe removal of oil from those shipwrecks such as in the Chuuk Lagoon in the Federated States of Micronesia, Solomon Islands and the Marshall Islands."

In response, at the post-Forum dialogue, Japan's Parliamentary Senior Vice-Minister for Foreign Affairs, Dr Tsuyoshi Yamaguchi stated that "Japan, from an environmental perspective, will look into the possibilities of assistance on this issue. The Government of Japan is now considering what assistance we can do."

At the Auckland meeting, Forum officials also launched a major report on unexploded ordnance in the Pacific, with detailed studies of the hazards of ageing explosives in four countries.

In their communique, Forum leaders "expressed concern at the continuing existence of unexploded WW2 ordnance (UXO) which remains a human security problem for many members, as well as a threat to public health, safety and the environment.

"They also recognised that UXO poses a serious obstacle to development. Leaders welcomed the development of the Re-

gional UXO Strategy Framework as a practical approach to addressing the challenges of UXO in the region and called on the assistance of relevant international bodies and development partners in addressing this long neglected issue.”

In September, FSM President Mori stood before the UN General Assembly, highlighting the challenge of remediating shipwrecks at a time when there are a range of other pressing environmental challenges:

“Oil from some of the shipwrecks in my state of Chuuk has already started leaking. Any disaster could have a devastating effect on the environment, our food chain, and the surrounding reefs that serve as breeding grounds for many fish species. It will also adversely impact our tourism industry which depends largely on coral and shipwreck diving.”

He added: “To avoid a major environmental disaster, I am now appealing to the international community for immediate assistance.”

The FSM government formally briefed US officials on the problem, at the annual US-FSM Joint Committee Meeting on 17 November.

SPREP’s Talouli stresses the need for co-operation between flag nations and the Pacific countries that host the wrecks: “The vessel owner and the state need to work together. Both legally and financially, Pacific islands countries can’t do it alone.

“The responsibility for clean-up lies with the vessel owner. FSM can’t touch the

vessels legally, as they belong to the flag state. Small Islands states have to plead with the flag nations to provide the necessary resources.”

## Rays of hope


Talouli says other countries could assist: “We’re looking to work with personnel from the Royal Australian Navy and Royal New Zealand Navy on this issue. We’re hoping to do more in the coming year, asking them to do assessments of possible oil leaks when they deploy to the islands.”

With extra resources, there is real potential to address the looming problem. McLeod believes that Chuuk has real expertise that can be supported by outside governments and environmental organisations.

“People should work in conjunction with the Chuukese heritage team to turn this into the best-managed WW2 undersea park, conserving the wrecks in-situ and preserving them indefinitely. There are rays of hope but we need money to move in this direction.

“The object is not just to get rid of the oil, but to preserve these wrecks over time,” says McLeod.

“There’s a cornucopia of marine life on these wrecks and they make wonderful artificial reefs and nursing grounds for fish and sedentary bio-forms. Old wrecks are good! With appropriate resources, we could turn an inherited nightmare into a real plus,” he said. ❖



## Emergency Contact Information Mornington Peninsula Area

<b>Police – Ambulance – Fire</b>	<b>000</b>
<b>Water Police</b>	<b>1800 135 729</b>
	or 03 9534 2983
<b>Diving Emergency Service</b>	<b>1800 088 200</b>
<b>Rosebud Hospital</b> 1527 Nepean Hwy, Rosebud	<b>03 5986 0666</b>
<b>Frankston Hospital</b> Hastings Road, Frankston	03 9784 7777
<b>The Bays Hospital</b> Main Street, Mornington	03 5975 2009
<b>Southern Peninsula Rescue (Sorrento)</b>	03 5984 4555
<b>Mornington Bay Rescue Service</b>	0419 233 999
<b>Coast Guard (Queenscliff)</b>	03 5258 2222
<b>Coast Guard (Hastings)</b>	03 5979 3322
<b>Coast Guard (Safety Beach)</b>	03 5981 4443
<b>State Emergency Service (SES)</b>	26 14 68
<b>Diving Doctors</b>	
Dr Pamela Dagley (Eltham)	03 9439 2222
Dr Vanessa Haller (Carrum Downs)	03 9782 6666
Dr Adrian Murrie (Sorrento)	03 5984 4322
Dr Guy Williams (Rosebud)	03 5981 1555
<b>VHF Emergency Channel 16</b>	(club channel 73)
<b>27 MHz AM Emergency Channel 88</b>	(club channel 96)

## Tidal Streams at the Heads — April 2012

**RED** italic times are slack water with EBB about to start (Flood Slack)  
which are the best diving conditions near the Heads.

Daylight Saving starts Sunday 2 Oct 2011 and ends on Sunday 1 April 2012 (times adjusted)

Mon 2	Tues 3	Wed 4	Thurs 5	Fri 6	Sat 7	Sun 8
Slack	Slack	Slack	Slack	Slack	Slack	Slack
0314	0404	0505	<b>0003</b>	<b>0100</b>	<b>0156</b>	<b>0250</b>
<b>0844</b>	<b>0934</b>	<b>1035</b>	0616	0726	0831	0929
1543	1633	1732	<b>1148</b>	<b>1316</b>	<b>1446</b>	<b>1557</b>
<b>2221</b>	<b>2310</b>		1839	1951	2102	2204
Mon 9	Tues 10	Wed 11	Thurs 12	Fri 13	Sat 14	Sun 15
Slack	Slack	Slack	Slack	Slack	Slack	Slack
<b>0341</b>	<b>0428</b>	<b>0512</b>	0024	0104	0144	0229
1024	1115	1204	<b>0553</b>	<b>0633</b>	<b>0713</b>	<b>0755</b>
<b>1656</b>	<b>1746</b>	<b>1833</b>	1531	1332	1414	1457
2257	2343		<b>2131</b>	<b>1958</b>	<b>2040</b>	<b>2125</b>
Mon 16	Tues 17	Wed 18	Thurs 19	Fri 20	Sat 21	Sun 22
Slack	Slack	Slack	Slack	Slack	Slack	Slack
0323	0432	0556	<b>0014</b>	<b>0120</b>	<b>0220</b>	<b>0310</b>
<b>0843</b>	<b>0944</b>	<b>1110</b>	0716	0821	0916	1004
1546	1646	1801	<b>1251</b>	<b>1415</b>	<b>1519</b>	<b>1612</b>
<b>2215</b>	<b>2311</b>		1923	2037	2137	2226
Mon 23	Tues 24	Wed 25	Thurs 26	Fri 27	Sat 28	Sun 29
Slack	Slack	Slack	Slack	Slack	Slack	Slack
<b>0352</b>	<b>0427</b>	<b>0458</b>	0018	0050	0121	0153
1046	1124	1159	<b>0527</b>	<b>0556</b>	<b>0627</b>	<b>0701</b>
<b>1657</b>	<b>1738</b>	<b>1815</b>	1231	1301	1332	1405
2307	2344		<b>1850</b>	<b>1923</b>	<b>1954</b>	<b>2026</b>
Mon 30	Tues 1	Wed 2	Thurs 3	Fri 4	Sat 5	Sun 6
Slack	Slack	Slack	Slack	Slack	Slack	Slack
0226	0248	0332	0426	0531	<b>0000</b>	<b>0103</b>
<b>0740</b>	<b>0822</b>	<b>0912</b>	<b>1013</b>	<b>1129</b>	0644	0757
1442	1511	1557	1654	1802	<b>1305</b>	<b>1436</b>
<b>2059</b>	2135	2216	2304		1920	2038

## Tidal Streams at the Heads — May 2012

**RED** italic times are slack water with EBB about to start (Flood Slack) which are the best diving conditions near the Heads.

Daylight Saving starts Sunday 2 Oct 2011 and ends on Sunday 1 April 2012 (times adjusted)

Mon 30	Tue 1	Wed 2	Thu 3	Fri 4	Sat 5	Sun 6
Slack	Slack	Slack	Slack	Slack	Slack	Slack
226	248	332	426	531	0	103
<b>740</b>	<b>822</b>	<b>912</b>	<b>1013</b>	<b>1129</b>	644	757
1442	1511	1557	1654	1802	<b>1305</b>	<b>1436</b>
<b>2059</b>	<b>2135</b>	<b>2216</b>	<b>2304</b>		1920	2038
Mon 7	Tue 8	Wed 9	Thu 10	Fri 11	Sat 12	Sun 13
Slack	Slack	Slack	Slack	Slack	Slack	Slack
<b>207</b>	<b>309</b>	<b>404</b>	<b>453</b>	11	54	138
906	1008	1103	1152	<b>538</b>	<b>620</b>	<b>701</b>
<b>1546</b>	<b>1643</b>	<b>1732</b>	<b>1817</b>	1236	1317	1356
2145	2240	2327		<b>1858</b>	<b>1937</b>	<b>2015</b>
Mon 14	Tue 15	Wed 16	Thu 17	Fri 18	Sat 19	Sun 20
Slack	Slack	Slack	Slack	Slack	Slack	Slack
224	315	417	530	642	<b>20</b>	<b>121</b>
<b>745</b>	<b>836</b>	<b>941</b>	<b>1104</b>	<b>1233</b>	747	843
1437	1525	1623	1735	1855	<b>1350</b>	<b>1453</b>
<b>2054</b>	<b>2136</b>	<b>2224</b>	<b>2319</b>		2009	2110
Mon 21	Tue 22	Wed 23	Thu 24	Fri 25	Sat 26	Sun 27
Slack	Slack	Slack	Slack	Slack	Slack	Slack
<b>217</b>	<b>304</b>	<b>345</b>	<b>422</b>	<b>456</b>	29	100
933	1016	1055	1130	1203	<b>530</b>	<b>605</b>
<b>1546</b>	<b>1630</b>	<b>1710</b>	<b>1745</b>	<b>1818</b>	1235	1308
2200	2243	2321	2356		<b>1849</b>	<b>1919</b>
Mon 28	Tue 29	Wed 30	Thu 31	Fri 1	Sat 2	Sun 3
Slack	Slack	Slack	Slack	Slack	Slack	Slack
131	203	239	321	353	456	611
<b>642</b>	<b>723</b>	<b>808</b>	<b>902</b>	<b>958</b>	<b>1116</b>	<b>1253</b>
1342	1418	1458	1546	1621	1728	1848
<b>1948</b>	<b>2017</b>	<b>2047</b>	<b>2122</b>	<b>2214</b>	<b>2310</b>	



## Tidal Streams at the Heads — June 2012

*RED* italic times are slack water with EBB about to start (Flood Slack)  
which are the best diving conditions near the Heads.

Daylight Saving starts Sunday 2 Oct 2011 and ends on Sunday 1 April 2012 (times adjusted)

Mon 28	Tue 29	Wed 30	Thu 31	Fri 1	Sat 2	Sun 3
Slack	Slack	Slack	Slack	Slack	Slack	Slack
131	203	239	321	353	456	611
<i>642</i>	<i>723</i>	<i>808</i>	<i>902</i>	<i>958</i>	<i>1116</i>	<i>1253</i>
1342	1418	1458	1546	1621	1728	1848
<i>1948</i>	<i>2017</i>	<i>2047</i>	<i>2122</i>	<i>2214</i>	<i>2310</i>	
Mon 4	Tue 5	Wed 6	Thu 7	Fri 8	Sat 9	Sun 10
Slack	Slack	Slack	Slack	Slack	Slack	Slack
<i>18</i>	<i>131</i>	<i>241</i>	<i>343</i>	<i>438</i>	0	45
731	846	951	1046	1135	<i>527</i>	<i>614</i>
<i>1420</i>	<i>1529</i>	<i>1626</i>	<i>1714</i>	<i>1757</i>	1218	1258
2011	2122	2221	2312		<i>1836</i>	<i>1913</i>
Mon 11	Tue 12	Wed 13	Thu 14	Fri 15	Sat 16	Sun 17
Slack	Slack	Slack	Slack	Slack	Slack	Slack
129	213	259	351	453	600	705
<i>659</i>	<i>746</i>	<i>839</i>	<i>940</i>	<i>1052</i>	<i>1207</i>	<i>1318</i>
1338	1419	1505	1558	1700	1813	1928
<i>1949</i>	<i>2024</i>	<i>2059</i>	<i>2138</i>	<i>2222</i>	<i>2313</i>	
Mon 18	Tue 19	Wed 20	Thu 21	Fri 22	Sat 23	Sun 24
Slack	Slack	Slack	Slack	Slack	Slack	Slack
<i>9</i>	<i>109</i>	<i>209</i>	<i>302</i>	<i>349</i>	<i>432</i>	1
803	855	940	1020	1057	1132	<i>512</i>
<i>1421</i>	<i>1514</i>	<i>1558</i>	<i>1637</i>	<i>1713</i>	<i>1746</i>	1207
2035	2130	2215	2254	2329		<i>1817</i>
Mon 25	Tue 26	Wed 27	Thu 28	Fri 29	Sat 30	Sun 1
Slack	Slack	Slack	Slack	Slack	Slack	Slack
32	103	136	211	253	345	431
<i>553</i>	<i>634</i>	<i>717</i>	<i>804</i>	<i>856</i>	<i>958</i>	<i>1107</i>
1242	1317	1354	1434	1520	1617	1656
<i>1846</i>	<i>1913</i>	<i>1940</i>	<i>2009</i>	<i>2043</i>	<i>2128</i>	<i>2233</i>

## VSAG Dive and Meeting Calendar

Date	Activity Details
	<b>Can swap between Sat and Sun depending! Dive sites adjusted on the day to suit divers and conditions.</b>
31 Mar / 1 Apr	Newhaven Philip Island — Dive Captains's Choice DC: Lloyd Borrett 0418 170 044
6/7/8/9 Apr	Easter Weekend — Details TBA. Local dives will occur. Watch for email updates.
15/14 Apr	Sorrento/Queenscliff — Canberra and Outside Reef DC: Greg Richards 0408 287 754
19 Apr	<b>General Meeting @ Maori Chief — 8.00 p.m.</b>
21/22 Apr	Newhaven Philip Island — George Kermode and Pinnacles DC: Michael Kakafikas 0439 044 122
28/29 Apr	Sorrento/Queenscliff — Coogee and Slack Water Dive DC: Graham Ellis 0412 100 067
5/6 May	Sorrento/Queenscliff — Submarines and slack water dive DC: Alan Storen 0417 017 446
12/13 May	Newhaven, Phillip Island — Pyramid Rock & Pinnacles DC: Lloyd Borrett 0418 170 044
17 May	<b>General Meeting @ Maori Chief — 8.00 p.m.</b>
19/20 May	Sorrento/Queenscliff — Canberra and slack water dive DC: Peter Briggs 0412 585 546
26/27 May	Newhaven, Phillip Island — George Kermode and Pinnacles DC: Greg Richards 0408 287 754
2/3 June	Sorrento/Queenscliff — Coogee and slack water dive DC: Cheryl Lees 0448 863 455
9/10/11 June	Queens Birthday Weekend — Details TBA closer to the date DC: John Lawler 0414 922 916
16/17 June	Sorrento/Queenscliff — Twin bommies and slack water dive DC: David Geekie 0419 300 686
21 June	<b>General Meeting @ Maori Chief — 8.00 p.m.</b>
23/24 June	Newhaven, Phillip Island — Crack Cave and George Kermode DC: Andy Mastrowicz 0402 060 711
30 June / 1 July	Sorrento/Queenscliff — Slack water dive and outside dive DC: Michael Kakafikas 0439 044 122

*by Graham Ellis, Dive Calendar Coordinator, VSAG*





18/02/2012 10:47



Photos: Benita McDonough

18/02/2012 10:48