

# **NZ Dolphin Underwater & Adventure Club**

## **Newsletter September 2023**

Club Meeting 7:00pm Wednesday 15<sup>th</sup> September 2023

**What's on : Philippines Diving**

**[www.dolphinunderwater.co.nz](http://www.dolphinunderwater.co.nz)**



**Club's Mail Address**  
14 Gails Drive  
Okura  
RD3 Albany



**Club Contacts Inside  
Website As Above**

## COMMITTEE MEMBERS: 2023/2024

<b>President/Entertainment</b>	Allan Dixon	021 994 593	allanandjilldixon@xtra.co.nz
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**Life Members** Barry Barnes, Margaret Howard, Peter Howard, Brian Horton, Reg Lawson, Roberto Tonei, Denis Adams, Trish Mahon-Adams, Dave Quinlan

**Honorary Members** Graham Thumah, Tony Enderby, Jenny Enderby, Eileen Slark.

**Cover Page Photo:- The deep in Tonga by Denis**

**15<sup>th</sup> September – Wed. – 7.00pm - Club Meeting Room - Philippines Diving – Northcote Road Extension**

**9<sup>th</sup> – 29<sup>th</sup> November – 10 days – P&O Cruise around NZ – Auckland and back to Auckland – Several Club Members are on this cruise if anyone else would like to join the trip please contact Margaret**

**Dive trips, NZ & Overseas** – Check out the dive shop's web sites, there is plenty available, but you do need to contact the shops in person to confirm costs & booking availabilities.

**Performance Dive NZ - Ph. 489 7782.** or <https://www.performancediver.co.nz/Dive+Trips++Events>

**Global Dive - Ph. 920 5200.** or <https://www.globaldive.net/page/trips> .

**Aucklandscubadive – Ph. 478 2814** or <https://www.aucklandscubadive.co.nz/dive-trips>

**Other events & suggestions please contact a committee member or organise it yourself & get the club to make up your numbers. i.e. – Dives, trips NZ & O'Seas, Events, Outings, Tramps, Dinners, Movies, etc.**

### **Our Club's Trip Rules (Organiser's rules apply for overseas trips)**

- A. Bookings allowed on all trips. *Two trips & club membership is a must.*
- B. **A deposit or full payment to be made at time of booking.**
- C. Full payment **MUST** be paid at least two weeks before departure date.
- D. Trip Organiser to handle trip & bookings, & Treasurer to handle finances. Cancellations due to weather will be refunded in full, or transferred to another trip.
- E. Members cancelling for any reason will lose full monies unless they find a replacement for their position on the trip.
- F. The trips Organiser will determine if there are enough people to run a trip & if not will notify cancellation two weeks prior to departure. **Non - financial members will be charged an extra \$10 on trips.**

**NB: All Memberships Now Due: Single – \$40 Family- \$50.00**

**For the club to continue we need paid up members see Margaret or Trish next meeting or do it online.**

**Club's Internet bank account is 06 0122 0074227 00 & don't forget to put in your name**

**Club Membership also includes Affiliation to the New Zealand Underwater Association**



## Press release from the Ministry for Primary Industries



The daily limit for recreationally caught pāua will reduce to 5 of each pāua species per fisher to support the sustainability of stocks in the central and lower North Island. The new rules take effect on **4 September 2023**.

"Pāua are a popular species to catch for many New Zealanders, and are highly valued by Māori customary fishers, recreational fishers, and commercial fishers alike," says Fisheries New Zealand's director fisheries management, Emma Taylor.

Tangata whenua, including the Mai Paritu tae atu ki Turakirae Fisheries Forum which represents iwi and hapū from Gisborne to South Wairarapa raised concerns about the sustainability of pāua stocks. This view was also reflected in submissions from recreational fishers.

"Customary and recreational fishers have reported localised depletion, particularly in easily accessible areas which are expected to have higher levels of recreational fishing during the summer months," said Emma Taylor.

"This echoes concerns from Taranaki hapū which led to a 2-year temporary ban for recreational and commercial pāua harvesting along the Taranaki coast in December 2022. This ban remains in place."

Recent extreme weather events also play a part with increased sedimentation caused by Cyclones Hale and Gabrielle having likely impacted local pāua populations in some areas of the East Coast.

"The new measures take a precautionary approach to managing the fishery so that pāua can be enjoyed by future generations.

"Community feedback, along with the best available scientific information, contributes to determining sustainable catch settings. It highlights the importance of working together for the sustainability of these important shared fisheries," said Emma Taylor.

Public consultation on the changes was undertaken as part of Fisheries New Zealand's regular reviews in April 2023. Fisheries New Zealand received more than 60 submissions from a wide range of interests including strong support from tangata whenua, recreational fishers, and local communities to reduce daily limits.

Another upcoming change for the central and lower North Island pāua fishery is the setting of a total allowable catch (TAC) for the region for the first time. The TAC limits the amount of pāua allowed to be harvested to 192.188 tonnes from all sources, commercial, recreational, and customary.

**This next article is on our back door step & hopefully will keep you informed & up to date.**  
**Ed.**

### Gulf Users' Group Update

September 2, 2023 Gulf Users' Group

In a flurry of activity before this term is up, the Government has recently advanced two significant developments concerning the Hauraki Gulf - the approval of a Hauraki Gulf Fisheries Plan and the introduction of the Hauraki Gulf/Tikapa Moana Marine Protection Bill, both of which we believe warrant concern.

Our campaign to retain democratic control of the Gulf has taken a significant blow under the approved Hauraki Gulf Fisheries Plan, which the government has now taken steps to implement. Under the Plan, fisheries are now to

be managed under what is effectively a co-governance arrangement between Māori and the Crown. The general public are largely excluded from the process. For more details see '[Hauraki Gulf fisheries under new management](#)'

Under the current Labour government, it appears that democracy, accountability and the rights of ordinary citizens count for much less than they used to. As we approach the upcoming elections, we asked the main parties for their stance on the concept of co-governance of the Hauraki Gulf. Please see our article '[Where the main parties stand on co-governance of the Hauraki Gulf](#)' for their responses which may influence your vote in what we see as a particularly crucial election.

The new Hauraki Gulf/Tikapa Moana Marine Protection Bill, introduced to the House last week, creates 19 new marine protection areas, tripling the amount of marine protection in the Gulf to 18 per cent, which on the face of it sounds like promising news for the revitalisation the Gulf. However, the gold standard for marine protection – marine reserves created under the Marine Reserves Act 1971 - are only a minor part of this proposal. Instead, the bill introduces a new category of protection called 'High Protection Areas', notable for including built-in rights for Māori customary fishing practices. Such continued exploitation flies in the face of the proven benefits of no-take marine protection, thereby undermining the credibility of the stated goal of the 'Revitalising the Gulf' initiative. More details on this proposal are available at '[The Government's Hauraki Gulf 'protection' plan](#)'

A further measure to protect the Hauraki Gulf is a plan to restrict bottom trawling. Under the proposal, nearly nine-tenths of the Gulf would be free from bottom trawling, with the activity confined to defined 'bottom fishing access zones'. The size and placement of these zones are now open for public consultation. Despite public feedback, the option to completely ban bottom trawling from the Hauraki Gulf Marine Park is not offered as an alternative. **We have until 6 November to have a say.**

More details on this proposal are available at '[Bottom-trawling ban for most of Hauraki Gulf](#)'

Also, see below information on a new aquaculture proposal for the Firth of Thames. Before the aquaculture decision is made, Fisheries New Zealand is seeking information from fishers on how the proposed aquaculture activities may affect their fishing. Submissions are invited from people whose customary, recreational, or commercial fishing may be affected by the proposed marine farm. **We have until 5 pm on 12 September to have a say.** More details on this proposal are available at: '[New aquaculture proposal in the Firth of Thames](#)'

## Notices

### **Upcoming Hauraki Gulf Forum meeting**

The next Forum meeting is to be held on Monday 11 September, beginning at 1 pm. The venue is Thames Coromandel District Council, 515 MacKay St, Thames. The public are welcome to attend. As of writing, the agenda is not yet publicly available. Closer to the time, it will be posted here:

<https://infocouncil.aucklandcouncil.govt.nz/>

### **State of the Gulf Report 2023**

Every three years the Hauraki Gulf Forum produces a report on the state of the Hauraki Gulf environment. The 2023 edition is now available at: <https://gulfjournal.org.nz/state-of-the-gulf/>

As always, thank you for your ongoing interest and support – and please help us spread the message by sharing this newsletter with anyone you think would be interested.

## **Diver fights off over 20 sharks in Bay of Islands** 16/03/2023 Molly Swift

A man has captured the moment he and one other diver had to fight off a frenzy of sharks who were after their catch of the day.

Last month, Zach Pattie was out spearfishing in the Bay of Islands when suddenly he became surrounded by a shiver of sharks.

"Quite often we see them, like one or two, but we don't normally see it like that. It's probably the most hectic experience," Pattie told Newshub.

Pattie, who has been spearfishing for years, had shot a kingfish which caused a sudden outburst of sharks from 10 metres below the two divers.

He said there were at least 20 bronze whaler sharks, which have an average length of two metres. The sharks demolished the fish and then turned to the divers.

"Once the fish was gone they were sort of in a frenzy, and came up and had a go at us," Pattie said.

"We were pushing them away with our spear gun."

Pattie said the sharks charged at them and brushed against them a few times but didn't open their mouths.

Thankfully, the sharks soon realised the divers were not fish food and left them alone.

The pair then quickly swam back to their boat.

Around [70 species](#) of sharks are found in New Zealand's waters. They range from the tiny pygmy shark to giant whale sharks. And in between are several that are dangerous, including the great white and mako sharks.

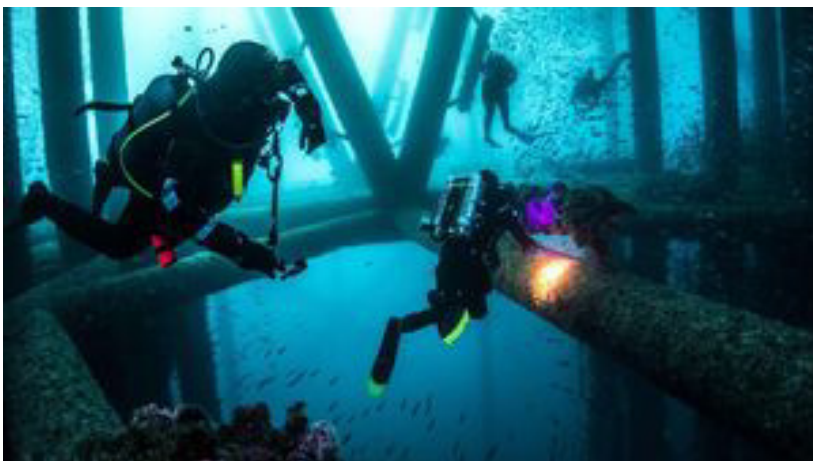
However, for those scared of a shark encounter, an expert has previously [told Newshub](#) it's very unlikely.

"Sharks are actually really lazy. They aren't bothered by humans at all and very few types of sharks would ever interact with humans," Felix Berghoefer from Kelly Tarlton's said.

"Most sharks are literally just out to catch fish and stay away from humans. Humans aren't on the spectrum of prey that sharks hunt."

### **'The closest humans come to being a fish': How scuba is pushing new limits**

Scientists have begun to explore the ocean's 'middle light' – the mesophotic zone, a lesser-known part of our seas – with new rebreathers



Divers explore under the Eureka oil rig platform at Long Beach California. The platform is 8 miles off the California coast and has an ecologically diverse ecosystem underneath

Helen Scales

In between the sunlit shallows and the dark, deep ocean lies an inky realm where few people have ever been. Stretching from about 30 to 150 metres, the mesophotic zone (meaning 'middle light') is an awkward depth. It lies just beyond the reach of regular scuba divers and it's usually what aquanauts inside multimillion-dollar submersibles merely glimpse as they plunge deeper.

However, a new generation of scientists is pushing the limits of diving to discover the secrets of this ecological zone. "There's so much to see, and everything seems new. It's like a different world," says Erika Gress from James Cook University in Queensland, Australia.

To access the mesophotic zone, divers use equipment called rebreathers, which don't exhale bubbles.



“It’s so quiet. I think it’s the only time in my life that I feel like there’s just an absence of noise,” says Kylie Lev, assistant curator at the Steinhart Aquarium at the California Academy of Sciences in San Francisco.

A rebreather unit is usually a black or yellow box mounted on a diver’s back with a loop of pipe to breathe through. The device recycles a diver’s exhalations, which still contain plenty of breathable oxygen. It adds more oxygen as needed and filters out carbon dioxide.

The setup is efficient and can keep a diver breathing for eight hours, although dives generally last four or five. Most of that time is spent coming up slowly to avoid getting decompression sickness — or the bends — when dangerous gas bubbles form in the body, like opening a shaken can of beer.

Deep-diving scientists also breathe a special mix of gases because the amount of oxygen in normal air becomes toxic below 60 metres.

“If you breathe too much oxygen too deep you can pass out, and when you pass out in the water, you drown,” says Luiz Rocha, the curator of fishes at [California Academy of Sciences](#).

Nitrogen also becomes a debilitating narcotic. To avoid those effects, some of the oxygen and nitrogen is replaced by helium, which isn’t poisonous.

Helium is expensive – all the more reason for using a rebreather. If you filled a regular scuba tank with this helium mix and dived to 150 metres, Rocha says, “you would be spending \$20 (£16.50) in every breath”.

Rebreathing apparatus has been around since the late 1870s, and was used by military frogmen during the second world war. “Mechanically and even electronically, rebreathers are very much the same as they were 50 years ago,” says Rocha. Rebreathers have a reputation for being dangerous, chiefly because the gas mix can be deadly if it isn’t right. But the computers that monitor and control gas levels have become more reliable.

“The most important thing when you’re diving on a rebreather is knowing how much oxygen you’re breathing at all times,” says Rocha. “We use a computer that sits right in front of our eyes.” That way there’s no risk of getting distracted chasing after a fish and forgetting about the oxygen levels. Even a minute or two breathing too much oxygen can be fatal.

Still, rebreather divers take down up to four or five bailout tanks — regular scuba tanks filled with different gas mixes — that they can use if their rebreather fails, giving them an emergency exit from the deep. “We’ve never had a bailout situation in our team,” says Rocha.

Safety requirements, especially for scientific divers, have also become more rigorous. It takes years to train and hundreds of hours of diving. Rocha likens it to learning to fly.



Tosanoides aphrodite.  
Picture: Luiz Rocha,  
California Academy of  
Sciences

“You can’t have one week of training then the next day go and fly your plane by yourself. You have to accumulate a certain number of hours flying with an instructor,” he says. “It’s the same thing with a rebreather.”

Preparation at the surface, assembling and checking the large amount of equipment before each dive, takes an hour, and it’s often the most physically and mentally challenging part of a dive. “The weight of all of your gear is real,” says Lev. “But there’s this moment for me every time I hop in the water that the pressure is lifted.”

Below the surface, the human body isn’t aware of the water crushing down. “You don’t feel any pressure,” says Gress. “I just find it mesmerising that we humans are able to have so much water above us.”

Divers who make it to the depths of the mesophotic zone are rewarded with sightings of fabulously colourful animals. Rocha has helped to name dozens of fish species including the Aphrodite anthias (*Tosanoides aphrodite*), with neon pink and golden markings, which he found 100 metres down at St Paul’s Rocks in the Atlantic Ocean off the coast of Brazil. “It hypnotised us,” he says.

Gress studies black corals in the mesophotic zone. “Everybody thinks they are dark creatures that live in caves, but not at all,” she says. The corals’ skeletons are black or dark brown, but their external, living tissue can be orange, white, red, green or yellow. “All the colours that you can imagine,” Gress says. Black corals grow as long spirals, wide fans, bushy shrubs and branching trees, five metres tall.

For Gress, descending to these depths is vital because in many parts of the world the jewellery industry has stripped black corals from shallow seas for their dense, precious skeletons.

“Nowadays, we can only find them beyond 40 or 50 meters,” she says. Compared with hard corals that form tropical coral reefs, little is known about black corals, which grow down to at least 9km and can live for more than 4,000 years, making them the oldest known colony-forming animals.

Rocha has tried using deep-diving submersibles for his fish studies, but says it was a nightmare. He compares it with studying birds in a rainforest using a helicopter: “It’s not the right tool for the job.” Silently diving with rebreathers allows Rocha and colleagues to get close to fish, to photograph them and collect specimens in hand nets. “You can hear all of these small nuanced noises that animals make,” says Lev.

To describe a new species requires bringing back several specimens for museum collections. Rocha emphasises that these fish are not rare once you get down into their realm.

The team also uses a small decompression chamber to bring fish up alive, by slowly releasing the pressure over several days. “It unlocks a lot of doors for getting these animals to be strong ambassadors for their species,” says Lev.

Fish from the mesophotic zone have proven remarkably hardy and are surviving well at [Steinhart Aquarium](#) at the California Academy of Sciences. These fish are helping to show aquarium visitors that mesophotic reefs are unique, threatened and need just as much protection as shallow coral reefs, Lev says.

“Everybody assumed they could be a refuge,” says Rocha. But as his and other studies are showing, these depths are home to a different set of species. This won’t be somewhere that shallow species can retreat to escape from impacts above, such as overfishing and coral bleaching.

And these deep reefs are not out of reach of human impacts. Rocha is soon to publish a study showing plastic pollution is often worse on mesophotic reefs than nearer the surface, likely because currents are weaker down there. “Plastics just sit there for longer,” he says.

Perhaps the most powerful thing that rebreathers allow is for scientists to safely explore more of the ocean than ever before in bubble-free tranquillity.

This is the closest humans can come to being a fish.

## Giant Squid Facts

Giant squid grow up to 13m long & weigh up to 300kg. The females are larger than the males at maturity (males reach about 10m & about 200kg).

The latin name is Architeuthis dux (pronounced 'AR-key-TOO-this ducks').

There is just one species worldwide, in all oceans except the Arctic & Antarctic.

The giant squid is NOT the same as the colossal squid (*Mesonychoteuthis hamiltoni*), the famous squid at Te Papa with swivelling hooks. The two species are from different families (like cats & dogs) and the colossal is only found in Antarctic waters.

The giant squid eats small fish & squid & there is some evidence of cannibalism (pieces of a giant have been found in another squid's stomach).

The giant squid's oesophagus (the tube through which food passes when it swallows, to reach the stomach) is about the diameter of your thumb, and passes through the middle of the doughnut-shaped brain.

The giant squid (like all cephalopods) has three hearts, one to pump the blood through the body & one for each gill. The 'blood' is pale blue, with copper-based molecules (haemocyanin) transporting oxygen, instead of iron-based haemoglobin like ours.

Giant squid are eaten by sperm whales but few other animals. (They do not eat sperm whales themselves.)

We do not have any way to reliably estimate the worldwide population of the giant squid.

But one paper (Roper & Shea, 2013) estimated that sperm whales may eat up to 320 million giant squid each year!

Adult giant squid normally live at about 5000m depth. They do not come to the surface once fully grown.

Unsolved giant squid mysteries include: how long they live, what their egg masses look like, and where they live as young individuals (babies live at the surface, adults in the deep sea).

AUT squid scientists (teuthologists) have examined more than 50 giant squid in the past 20 years. These have usually been caught by accident in commercial fishing or research trawls, or washed up on beaches.

## Philippines Diving

Diving in the Philippines is a great experience as the options are huge in terms of underwater life. There are hundreds of options which I can tell you about next week. I will focus on a 2 resort 12 day option in both Moalboal (Cebu) and Anda (Bohol).

A plus for both island suggestions is staying at the Magic Resorts one on Moalboal and the other in Anda. Both are 3 star diving resorts so they are good at what they do. I have stayed with them 3 times now and am welcomed and looked after very well.

<https://magicresorts.online/>

### What's special about Moalboal Diving?

Well two areas are outstanding. Pescador Island, just 10 minutes boat ride off the beach, has several excellent sites with dramatic steep walls and a massive amount of marine life. Depending which way the water is running, you can dive down one side of the island then the other for a second dive. There is great macro life, particularly frogfish. Turtles can be seen on almost every dive, both in the blue and sleeping or eating on the reef. In the shallows there are stunning amounts of corals.

And of course you may have heard of the huge school of sardines million strong that live year around just off the shore. They used to be on Pescador Island but moved inshore some years ago.



## What's special about Anda Diving?

Largely undiscovered destination.  
Wonderful kilometres long reef just meters from the shore  
Fantastic muck-diving with plenty of bucket-list creatures

Situated on the easternmost tip of Bohol, 150-kilometres, Anda offers an idyllic escape from the hustle and bustle of the island's tourism hotspots. Known as the 'Gem of Bohol'. The charming town of Anda represents the very best the Philippines has to offer.

The diving in Anda reflects the area's peaceful and relaxed atmosphere, and is focused on the reef running along the coast from Anda to Guindulman, and around 30 varied dive sites, less than a 10-minute boat ride. Local sites incorporate sandy slopes, mangroves, reefs, small caves, and walls full of marine life, as well as the nearby islands of Lamanok and Camiguin which can often be visited by day-trips. With such a rich diversity of dive sites, perfectly suited to all experience levels. Anda is a haven for macro-lovers, playing host to a kaleidoscope of bucket-list critters such as pygmy seahorses, blue-ringed octopus, hairy frogfish, tiger shrimp, mimic octopus, and over 200 species of nudibranchs. While many of the sites around Anda offer their fair share of macro-life, there are several specific muck-diving sites such as Pogaling, Basdio Sanctuary, Secret Place, Suba Sanctuary, and Larry's Corner. For guests visiting at the right time of year, Anda also offers its fair share of bigger species which frequent its many coral gardens, slopes and walls. As well as the ever-present sea turtles, possible encounters with larger species include big schools of jackfish, passing whale sharks, and even occasional manta rays.



We would stay at each resort 5 or 6 days so you will get to see two very different areas and dive site. A little bit of traveling is involved but that is in itself part of the fun.

I will see you all on Wednesday for a chat and any questions. Both Magic Resorts will make you very welcome and I have told them what good divers you all are!!

Ray Aucott

<https://unsplash.com/@rayjo>



**Practice being safe & staying safe for you & your buddies & we will see you all at the club meeting**

**The MAF regulations vary in particular when it comes to your catch size/limits & locations.**

**Especially in the Hauraki Gulf area, things have changed.**

**Please familiarise yourself with them**

