

NZ Dolphin Underwater & Adventure Club

Newsletter October 2024

Club Meeting 7:00pm Wed 9th October 2024

What's on : **Guest speaker is Johan Olivier from DAN**

www.dolphinunderwater.co.nz



**Remember Saturday 19th October is our club's 70th Anniversary Dinner at the
Milford Cruising Clubrooms**

**Club's Mail Address
14 Gails Drive
Okura
RD2 Albany**



**Club Contacts Inside
Website As Above**

COMMITTEE MEMBERS: 2023/2024

President/Entertainment	Allan Dixon	021 994 593	allanandjilldixon@xtra.co.nz
Vice-President	Chris Nipper	021 991 732	akidna27@gmail.com
Newsletter Editor	Denis Adams	0278 970 922	da.triden@gmail.com
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Sec/Treasurer backup	Trish Mahon-Adams	0272 715 410	t.triden@gmail.com
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Committee	Dave Craig	021 557 588	dave.wave5@gmail.com
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	Peter Howard	0225 194 046	pete.howard@xtra.co.nz
Web Site	Matt Gouge	0210 777 282	mattgouge@gmail.com

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:– Nuie Island’s Spinner Dolphins by Denis

WHAT’S ON?

9th October – Wed. – 7:00pm – Club Rooms – Northcote Rd Ext’n, Takapuna - “Johan Olivier from DAN”

13th October - Sun - 9am - Club Rooms - EMR Volunteer training day & Quarry Clean up with BBQ

19th October – Sat –5:30pm - Anniversary Celebration with Keith Gordan on the Wreck of the Tasmania

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

A juvenile pygmy blue whale stranded under a wharf on Kawau Island in the Hauraki Gulf has been freed.

The stranding under a private Schoolhouse Bay Wharf was first reported this morning, a spokesperson for the Department of Conservation (DOC) said.

DOC staff, iwi representatives, and technical experts were on-site throughout the day to assess the situation.

The whale, measuring 14 to 15 metres in length, was freed at 6pm after the wharf was removed around mid-afternoon.

"The whale was guided out of the channel and was last seen swimming well in deeper waters," the spokesperson said.

"This was a highly unusual situation, and we worked carefully to free the whale while ensuring the safety of everyone involved. Ngāti Manuhiri were an integral part of the mahi today, providing boat support and kaitiaki were alongside us during the day making decisions.

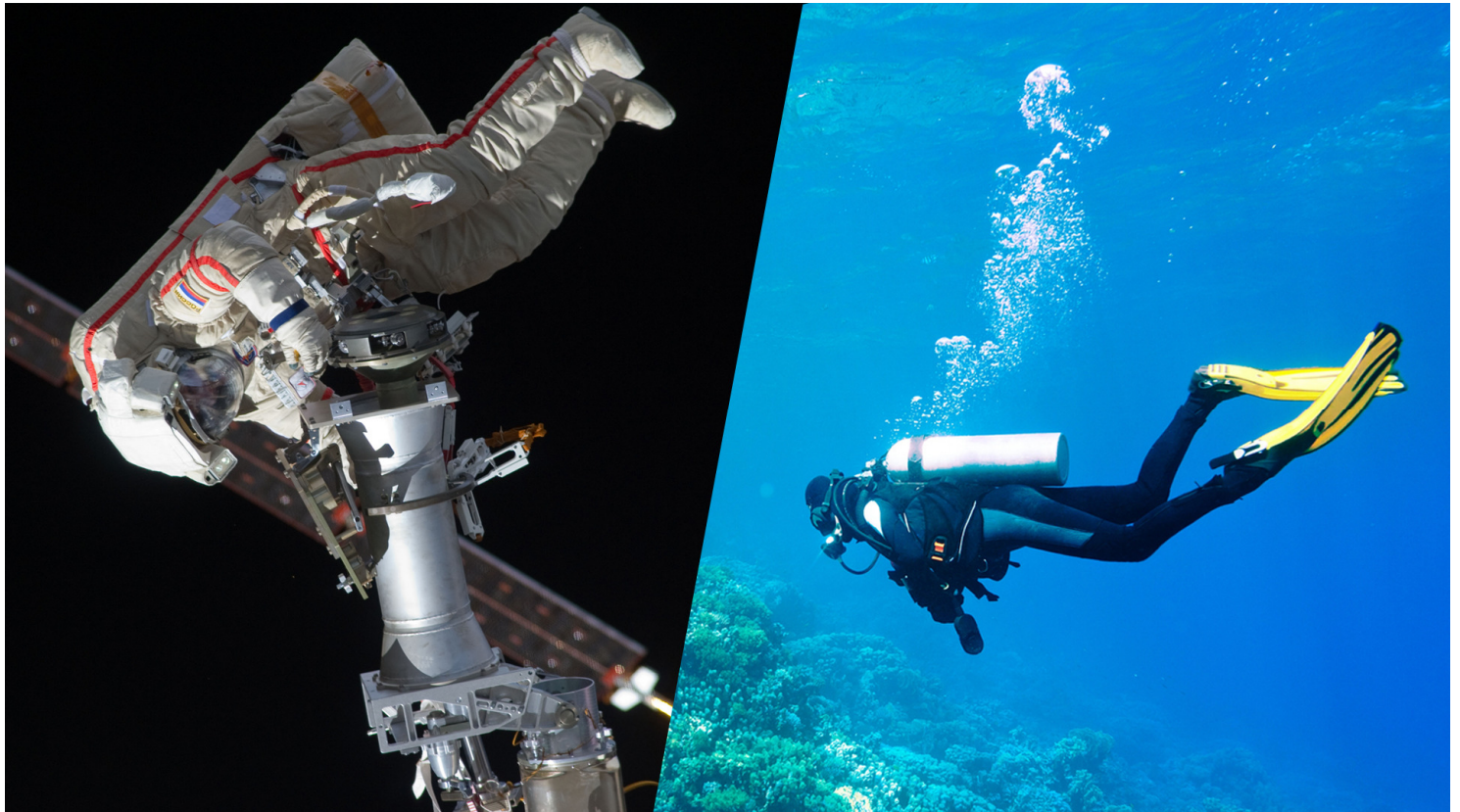
"The whale appeared calm throughout, and we are cautiously pleased with the outcome. We are grateful for the efforts of all those involved."

DOC has asked the public to report any whale sightings over the next few days while staff monitor the area for "any potential re-stranding".

Astronauts and aquanauts: What does the sea have to do with space?

Turns out, the best place to train to leave Earth is the big blue.

By [Alisha McDarris](#)



To go to space, you first need to spend a lot of time underwater.

Image: *Popular Science* composite/NASA/[DepositPhotos](#)

Space and the open [ocean](#): On the surface, it seems like two more wildly contrasting places couldn't possibly exist. But on the contrary, the two are more closely tied than you think. And people who have been to the farthest reaches of both can attest to the fact. Because as it turns out, the types of training and experience required and the environments you find in both have impressive parallels.

Just ask aeronautical engineer, astronaut, and aquanaut Nicole Stott. She's spent 104 days in space on the Space Station and Space Shuttle and plenty of time underwater, partially in preparation for space travel, but also for fun and education now that she spends most of her time on planet Earth.



STS-128 crew member Nicole Stott during STS-128 17A EVA 1 training in 2009. *Image: Bill Stafford/NASA*

The PADI-certified (Professional Association of Diving Instructors) diver confirms that under sea and outer space have a lot in common. After all, both are extreme environments that are not only hard to access, but often outright dangerous, require ultra specialized equipment to navigate, and are inhospitable to humans. Which turns out to be pretty convenient, because while simulating the lack of gravity and the vacuum of [space](#) can be tricky, the ocean offers a legitimate analog and impressively simulative training grounds.

In fact, astronauts, before they even think about setting foot in a shuttle to travel beyond Earth's atmosphere, have to spend time underwater. There's even a dedicated training center for it: the Neutral Buoyancy Laboratory in Houston that exists to train astronauts for space walks. Inside, one of the world's largest indoor pools—measuring 202 feet long, 102-feet wide, and 40 feet deep and containing 6.2 million gallons of water—is also home to replicas of International Space Station components, as well as other man-made structures in space.

Commercial Crew Program astronaut Barry “Butch” Wilmore in EVA suitup at NBL with Expedition 62 cosmonaut Nikolai Tikhonov during Expedition 62 ISS EVA Maintenance 2 training in 2016. *Image: Robert Markowitz/NASA*

In this pool, astronauts don 300-pound suits plus plenty of other equipment to achieve neutral buoyancy, and submerge themselves, surrounded by a team of support divers, to learn and feel like what it will be like to operate and move about in space. In fact, according to Stott, it's the closest feeling you can achieve on Earth that simulates what it's like to move in space (minus the drag and weight you experience underwater).



After all, in both places, you're floating—though in the water because you're buoyant and in space because there's no gravity—and in neither can you simply call it a day, throw off your helmet or respirator, and walk home.

Which is why Stott and others have also trained in the Aquarius Lab, an underwater habitat and aquanaut basecamp 60 feet under the surface of the ocean off the Florida Keys. She spent 18 days beneath the surface. Down there, “you're in a real, true, extreme environment,” Stott explains, just like you would be in space—though

with much more atmospheric pressure. But being at those depths doesn't just simulate the movements and teamwork required outside Earth's atmosphere, it mimics the sense of isolation and self-reliance, too.

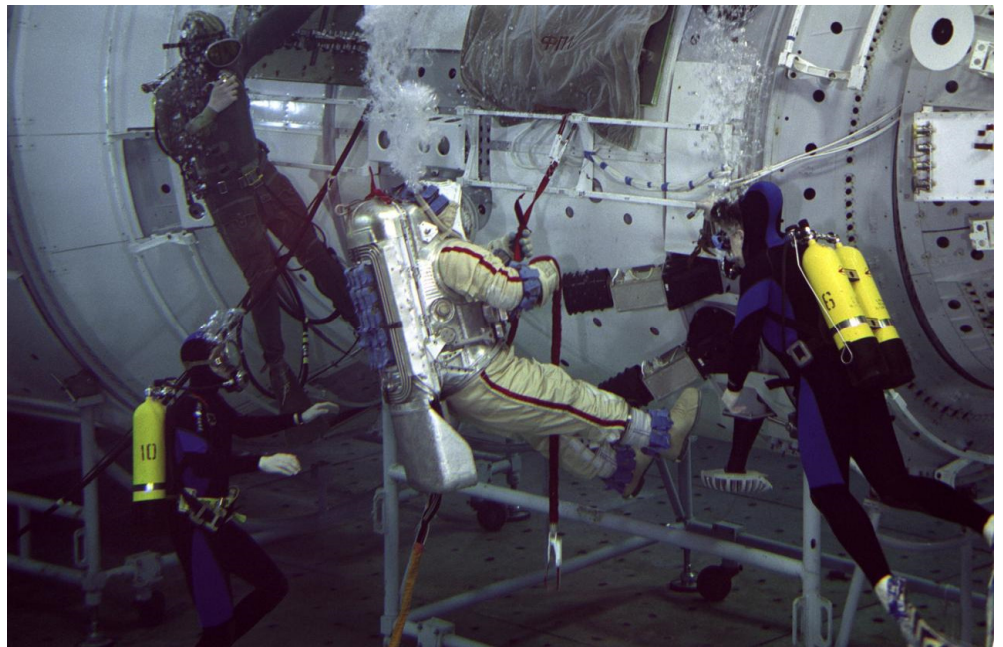
"You can't just bail," Stott explains. When you're underwater at significant depths, your body and blood become too saturated with nitrogen to quickly retreat to the surface if you run into trouble. Do so, and the excess nitrogen can cause bubbles in your blood and/or lungs, causing serious bodily harm and decompression illness or even death via arterial gas embolism. At Aquarius' depth, Stott explains, saturation happens once you're down there for just 60 minutes.

Sure, there's a relatively safe "indoor" environment to retreat to—similar to being inside a spaceship—but in either location, "If something goes wrong, you and your crew have to figure out how to get into a safe configuration, including accounting for your crewmates."

Everything about it is a perfect analog for space, she goes on: How you communicate, act with your crew and mission control team, live in cramped quarters, use specialized equipment, and the way you are required to deal with emergency situations. It's just that in one case you're under pressure surrounded by water and the other you're dealing with the deadly vacuum of space.

Astronaut William Shepherd, ISS Expedition One commander, rehearses an extravehicular activity (EVA) with a full scale training model of the Zvezda Service Module in the Hydrolab facility at the Gagarin Cosmonaut Training Center in Russia in 2000. *Image: NASA*

"It's the ultimate parallel of the extreme environment of space," Stott says, even more so than other training astronauts have to endure, including cold weather and wilderness survival. But in those situations, she explains, you know that help is only a satellite phone call away. Deep in space or deep underwater, it all comes down to self-survival, working as a team, and knowing how to manage stress in a high-stakes environment. "It's a totally diff psychological experience," Stott adds.



Diver certification isn't required for those dreaming of becoming astronauts, either [professionally or as space tourists](#). But Stott says if you don't have dive experience already and your astronaut application is accepted, you'll get that certification and experience soon.

For those who prefer to go in prepared or want to experience what space feels like here on Earth, Stott is more than thrilled to make an introduction. In fact, she just completed her second Island Astronaut Camp in partnership with PADI and COMO Maalifushi in the Maldives. Together, kids snorkeled, built bottle rockets, designed space suits, and learned the importance of acting like a crew member, not just a passenger, whether they head to space, stay firmly rooted on terra firma, or explore underwater environments. It's just one way she helps connect the space curious with the space serious via her Space for A Better World and Space for Art Foundation.

"It's pretty cool that we can spend time undersea—living and working in inner space—to best prepare for what it's going to be like to live and work in outer space," Stott says. So if you want to experience what it's like in space, head underwater.

Why do we send so many fish to space?

Zebrafish embryos aboard the Chinese Tiangong Space Station are the latest ‘aqua astronauts.’

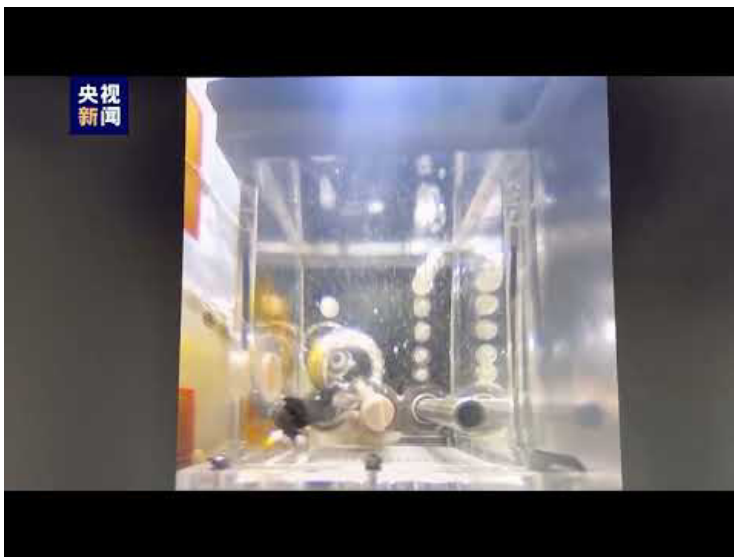
By [Briley Lewis](#)

Zebrafish are a great example of a model organism, a species that’s been extensively studied to help us understand a particular aspect of biology, often in ways we can’t experiment on humans. E+ / Getty Images



Nearly a decade before Sally Ride became the [first American woman in space](#), two humble little [mummichogs](#) became the first fish in space. In 1973, these little fish rocketed to space aboard one of the famed [Apollo](#) crew capsules as part of [Skylab 3](#), a three-month mission to [NASA’s early space station](#). For three weeks, the [fish](#) tumbled about in their plastic bag aquarium, totally disoriented by the lack of Earth’s familiar gravity, until they finally regained their bearings and could once again swim straight.

Those two mummichogs (plus another 48 that hatched from eggs onboard Skylab 3) were the first entries into a long history of orbiting fish who have taught us a great deal about how microgravity affects living creatures. Nearly 50 years later, [four zebrafish are now swimming aboard China’s Tiangong Space Station](#), adapting to their strange outer space environment—except now instead of a simple plastic bag, they’re living in a first-of-its-kind self-sustaining ecosystem.



Four zebrafish swim inside a tank aboard China’s Tiangong Space Station. Credit: CNSA

Last week, China’s astronauts (also known as [taikonauts](#)) reported that the zebrafish, launched on April 25th along with some algae, are alive and well. This experiment aims to see how [microgravity](#) will affect the fish’s life cycle and other natural cycles within their closed environment.

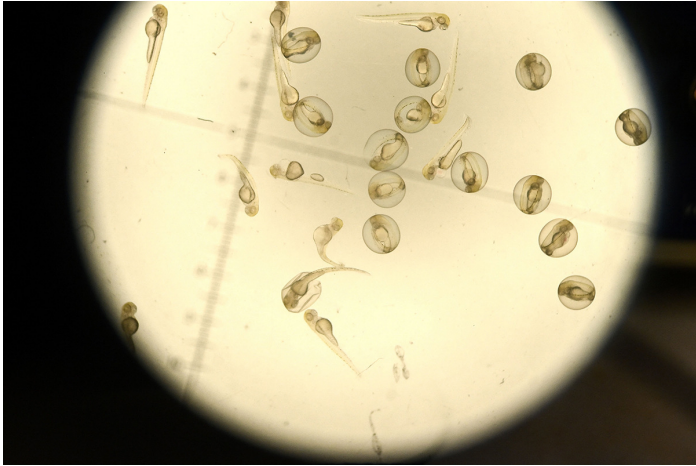
Microgravity’s effects reach far beyond the weightlessness humans experience in space. It leads to [changes in nearly all of our bodily functions](#), from our bones to our hearts and our brains. In order to spend more time in space, such as on long missions to Mars, it’s absolutely crucial that we understand these biological changes. Humans are complicated and hard to study, though, especially if you want to track changes from birth. That’s where fish come in.

Zebrafish are a great example of a [model organism](#), a species that’s been extensively studied to help us understand a particular aspect of biology, often in ways we can’t experiment on humans. Although zebrafish might seem quite unlike us, they actually “have many of the same major organs and their bodies generally work the way ours do even down to the cellular level in many cases,” explains University of Washington developmental biologist [Aaron van Loon](#).

Zebrafish are also small, easy to take care of, and actually [entirely see-through before they hatch](#), making it possible for scientists to peer inside them during their development. It’s also a lot easier for scientists to manipulate genetics in these fish, enabling “a lot of important experiments that simply wouldn’t be possible or ethical to perform with humans,” adds van Loon.

Here on Earth, zebrafish have already been used for numerous medical experiments that eventually help humans, “from the inner workings of embryonic development, to the function of immune cells during infection, and even

insights into genetic disease,” says van Loon. And in space, they’ve [been studied as early as the 1970s](#), when they flew aboard the [Russian Salyut 5 space station mission](#). More recently in 2015, [zebrafish aboard the International Space Station](#) were used to investigate how muscles atrophy in microgravity.



Embryos of zebrafish at various stages as seen through a microscope in a laboratory. *Credit: CHRISTOPHE ARCHAMBAULT/AFP via Getty Images CHRISTOPHE ARCHAMBAULT*

Many other fish—including those very first mummichogs—have flown to space as well.

For example, the slightly larger (and admittedly, uglier) oyster toadfish soared on [NASA’s Space Shuttle Columbia](#) in the late 1990s, so that scientists could watch their brains readjust to Earth’s gravity upon their return. In fact, a whole menagerie of creatures was aboard that flight on [Columbia’s STS-90](#), including “68,000 freshwater swordtail fish, 5,000 freshwater snails, 2,000 goldfish, 1,000 crickets and 125 saltwater toadfish” according to a [NASA annual report](#). On the International Space Station in the 2010s, [a school of medaka fish were used to track bone density loss](#) and see how the [higher radiation in space](#) degrades their DNA.

An oyster toadfish (*Opsanus tau*), like those that are part of the Neurolab payload on Space Shuttle Mission STS-90, is shown in its holding tank in the Space Station Processing Facility. Each fish is between eight and 14 inches long. Toadfish live in an estuarine environment and are native to areas along the Northeast coast of the United States. Investigations during the Neurolab mission will focus on the effects of microgravity on the nervous system. This fish is an excellent model for looking at vestibular function because the architecture of its inner and middle ear are similar to those of mammals with respect to the vestibular apparatus. *Credit: NASA*



NASA archives also contain “several records about the research done using jellyfish, goldfish, guppies, salamanders, and newts,” says [NASA archivist Julie Pramis](#), such as those aboard [space shuttle mission STS-65](#) in 1994 to investigate the critters’ balance, spatial awareness, and mating behaviors.

Similarly to human astronauts, fish are carefully chosen to go to space, and always with a particular mission in mind. From mummichogs to zebrafish and beyond, our little aquatic friends are leading the way for us to brave the final frontier safely, with full knowledge of how to keep ourselves safe and healthy in microgravity.

Stop Press: Just come in from Chris Nipper.

Hello Chris

Thank you for the email, we would love to have you come and dive with us again. I have listed the space available on the 7 night Yongala departing 13th March , this trip commences in Townsville - completes in Cairns Please note as a returning guest there is a 5% discount from the pricing shown , please let me know if you would like to book.

[Yongala Wreck & Coral Sea](#) 7 Nights/ 28 Dives

Summary: This expedition combines adventure diving: SS Yongala Wreck; dramatic vertical walls of Holmes and Flinders Reef. This expedition is booked as a 7 Night expedition. Dive back in time and into history.

Embark: Thursday– Check-in 6pm on Spoilsport at Breakwater Marina, Townsville.

Disembark: Thursday 8:00am, Cairns. Last dive is finished by 5:00pm the day before.

Experience: Advanced divers comfortable diving exposed walls with some current. Not suitable for children, snorkellers and novice divers. Certification required for Coral Sea expeditions is AOW or 15 ocean dives with 5 in the last 12 months.

Availability and price per person in AUD\$ - **7 Night Yongala Wreck & Coral Sea**

Cabin	Twin share available in Standard, Club and Budget cabins.	P/Person Twin	Sole Occupancy	13 March 2025
Premium	Queen or Double Bed, Ocean View, Ensuite	\$6813	\$12263	Sold out
Standard	Twin share, Single Beds, Ocean View, Ensuite	\$6271	\$11288	2 cabins/ 4 berths
Club	Twin share, Bunk Beds, Ensuite	\$5496	\$9893	2 ½ cabins/ 5 berths
Budget	Twin share, Bunk Beds, Share separate Bathroom	\$4704	\$8467	Sold out

The expedition fee includes:

- Spoilsport accommodation in twin / double cabins
- Delicious meals & snacks (no dinner on Thurs. departure evenings)
- Tea & Coffee all day, plus complimentary soft drink, and wine with dinner
- Tanks, air fills and weight belt
- Daily cabin service
- Reef ecology program
- Dive computer workshop
- Transfer to either our office, the airport or inner-city hotel after your expedition

Extras:

- \$8.00 EMC per day (capped at 3 days) spent at the Great Barrier Reef.
- [Equipment rental](#)
- Nitrox fills - \$25 Per Day
- [Courses](#)
- Bar purchases and souvenirs

For a full list of optional extras please see- <http://www.mikeball.com/prices/>

Spoilsport is Australia's most awarded liveaboard. We have many repeat customers who enjoy our fantastic crew and Spoilsport's exceptional space, stability, and diver conveniences. She is a custom designed twin hulled liveaboard with spacious sundeck, al fresco deck, saloon, and large fully equipped dive deck. Enjoy the luxurious motor yacht atmosphere and the attentive crew topped off with spectacular meals. [Click here](#) for meal options.

Additional Information:

Nitrox Instruction: Nitrox diving is highly recommended for liveaboard diving whether you wish to increase your bottom time or increase safety. The PADI Nitrox Course is great value at AUD\$310 (incl. 3 days Nitrox use). Nitrox certified divers can purchase fills for \$25 per day.

Guided Dives: It is not our policy for all dives to be divemaster led. We cater to guests who prefer more supervision with a combination of complimentary orientation dives to enhance skills, and scheduled morning and afternoon group guided dives daily. This service does not provide continuous personal or group guided dives, however these can be booked; please see Private Dive Guide details below.

Note: Junior divers and those with limited depth experience or dive skills may not be able to join all group guided dives (particularly in the Coral Sea).

Private Onboard Dive Guide – solely onboard to dive with you on all dives. Currently unavailable unless guide berth is paid for by guest, plus additional AUD\$350 per diving day. Subject to crew and berth availability and must be booked and confirmed prior to final balance.

Onboard Per-Dive Guide – Available on most expeditions, subject to staff availability on each dive. These are in addition to the Group Guided dives. AUD\$50 per person, per dive. For dives with 2 – 3 people, all divers charged AUD\$30 each.

Not dived for a while? If you have logged less than 200 dives and have not dived for 5 years, to maximise your comfort, enjoyment & the number of dives you will undertake, we recommend you complete a refresher course prior to travel. If it has been more than 10 years since your last dive, please discuss this with us prior to booking.

To book your expedition: A 30% deposit is required to confirm your booking and the balance is processed 60 days prior to departure. If the expedition departure date is within 60 days, full payment is required at time of booking.

We look forward to hearing from you soon.

Kind regards, Dorothy

Dorothy Johnson

Reservations, Mike Ball Dive Expeditions , Office is manned Monday – Friday 8am -4.30pm

T: +61(0)7 4053 0500 or 1300 998 018 (within Aust)

E: groups@mikeball.com

W: <https://www.mikeball.com>

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

NB: Especially in the Hauraki Gulf area, things have changed.

