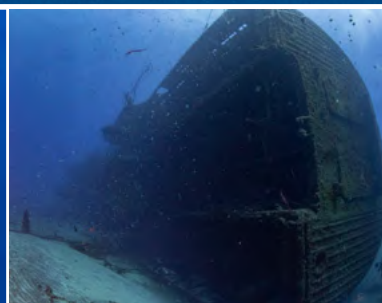


October - December 2020

OZDIVER

AUSTRALIA'S PREMIER DIVE MAGAZINE

**BOHOL
PHILIPPINES****WRECKS
OF THE
SOLOMONS****SPIDER
CRABS****DIVING
WITH
MINKE
WHALES****SHARKS****SAINT HELENA****FREE Digital Diving Magazine - www.ozdiver.com.au**



October - December 2020 Edition

Editor's Deco Stop

As times are tuff all over the world with this global pandemic, it had its biggest impact on the diving and travelling industry. Companies and friends in the industry that I have known for over 20 years are battling to survive and some just gave up.

It is sad to see how things change. We need to support our local dive shops and instructors. So when the international borders open, get on a plane and start diving again, as most of our neighbouring countries relied solely on tourism to feed their economy.

One good thing that emerged from these tough times, was that with me not being able to travel and write articles, I was able to finish my latest book which is now sold all over the east coast of Australia.

The Dive Spots of New South Wales is an indispensable guide for all levels of diver and snorkeler, broadening their horizons on places to visit and dive/snorkel in New South Wales.

Through extensive travelling and diving we bring you a valuable dive guide on more

than 250 dive/snorkel spots in New South Wales.

Guidelines and information on each dive destination include accommodation, facilities, travelling tips and dive conditions. This book contains more than 400 photographs and a 100 illustrated maps of dive/snorkeling spots.

All spots are star rated and cover depths, marine life and other essential information for the diving and snorkeling community.


You can buy it at your local dive shops or you can get it online at www.ozdiver.com.au

I hope that you enjoy this edition and thanks to everyone that supports us through these times.

Stay positive and start diving.

Editor in Chief & Publisher

Johan Boshoff

But seek first the kingdom of God and His righteousness and... 

OZ DIVER

Publisher & Editor-in-Chief

Johan Boshoff
johan@ozdiver.com.au

Editor & Marketing Coordinator

Bjanca Letinic
editor@ozdiver.com.au

Office

+ 61 (0) 44 887 9903
info@ozdiver.com.au

Contributing Editor's

Graham Willis
Malcolm Nobbs
Dave Abbott
Irene Groenewald

Primary Photographers

Christopher Bartlett -
David Caravias

Copy Editor's & Proof Readers

Gregg Cocking - Irene Groenewald

Production & Web Master

Innovative Businnes Solutions
www.innovativebusiness.com.au

Distribution

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Johan Boshoff



Bjanca Letinic



Amilda Boshoff



Irene Groenewald



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Primary Contributors & Photographers



Graham Willis



Christopher Bartlett



Malcolm Nobbs



Nuno Gomes



Dave Abbott



David Caravias



Barry Coleman



Andre Crone



Johan van Zyl

CONTENTS

Regulars

3 - Editor's Deco

4 - The Team

Letters

7 - Dive Log

Dive the Continent

9 - OZ News

15 - Spider Crabs

Weird and Wonders

31 - Sea Cucumbers

33 - Ocean Facts

37 - Sharks Part II

Med Talk

39 - Preventing
Panic

Dive the World

43 - Global News

47 - Saint Helena

65 - Philippines

Exploration

79 - Wrecks of the
Solomons

COVER PHOTO

Malcolm Nobbs



Christopher Bartlett

Through the Lens

91 - Photographer
Tom Hughes

Giant Stride

107 - Minke Whales

Technically Speaking

119 - Tech Diving
Bikini Atoll

123 - Nitrogen Narcosis

Instructor Diaries

127 - Rescue Diver

Gear Talk

129 - How Rebreathers
Work

135 - Books & Gear
Reviews

Safety Stop

142 - Funnies

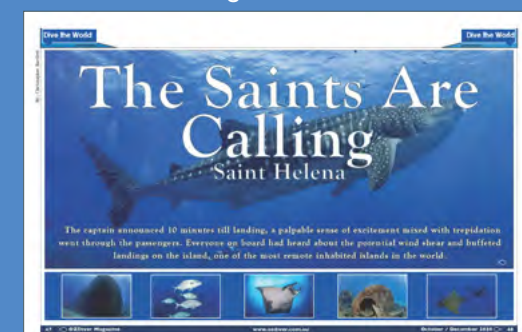
Dive Operators

143 - Listings

Spider Crabs - Pg 15



Saint Helena - Pg 47



Philippines - Pg 65



Wrecks of the Solomons - Pg 79



Minke Wales - Pg 107



Dive Log

Diving in Muscat

I recently travelled to Muscat, the capital of Oman, for romantic reasons – and some scuba. I thought readers might like to know whether it was worth it – the diving, I mean.

Muscat is about 300km east of Dubai, but Oman is separate from the United Arab Emirates. Dive masters employed in Dubai, Oman can mean part-time work or a great diving weekend.

The only snag is that Dubai's weekend falls on Friday/Saturday while Oman prefers Thursday/Friday.

The northern province of Oman is cut off from the rest of the Sultanate and is 120km from Dubai, making it a comfortable car trip – otherwise all flights land in Muscat.

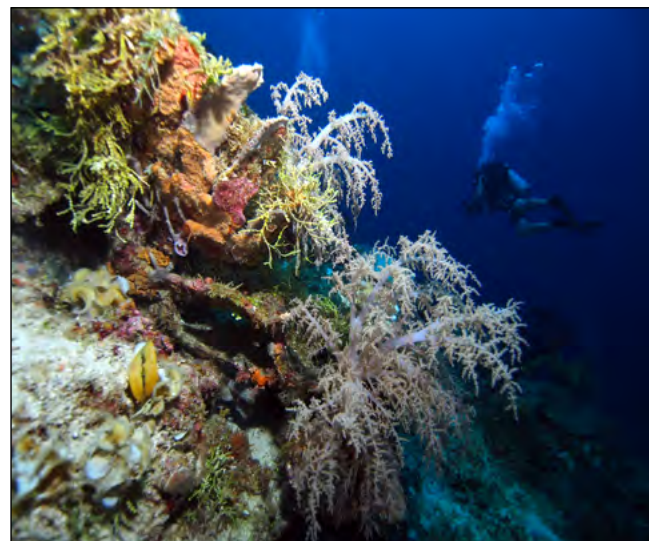
We stayed at the Oman Dive Centre which has its own dive shop. It was an eclectic concoction of rigid, German efficiency and the laid-back, 'narced' atmosphere typical of dive shops everywhere.

You were never quite sure what you would get each morning, but at least everyone came on time.

The beach rondavels were spacious with double beds, air-con, mosquito nets and a central fan.

The highlight was the en-suite, open-air shower and toilet that in the still, pressing heat of the desert was a passion-saver. But how was the diving? In the words of my fiancé, the diving was "unlikely to make your top 100 list", but there were some worthwhile sites.

The 'Al Munnassir' is well worth getting wet for – sunk by the Royal Oman Navy in April 2003, the wreck is 84m long, lying upright in the sand at 29m, with coral growth still relatively sparse.



As the Munnassir is a landing craft, you can be forgiven for thinking the bow to be the stern. The forward hold forms a vast space behind the bow doors and the engine room is accessible from there, with the aid of a powerful torch.

There are intact gauges and plenty to see for the technically minded.

The forward section hosts a large, friendly, Honeycomb moray eel that free-swims on the deck to meet divers, staring back, open mouthed, at interested buddy pairs.


All other dive sites are just offshore and are reached by boat. They offer a shallower second-dive option after the wreck, but are not necessarily less interesting.

The hard and soft corals were exceptional

with a fabled seahorse sometimes found clinging to beautiful, purple fan coral.

We had more luck, however, in finding a large Greenback turtle and Moray eels in more colours than I have ever seen in one place.


Lionfish, scorpionfish, anemone and the usual reef fish are on display in water that averaged 23°C while we were there in March, but can be a chilly 15°C around December, in mid winter. Visibility varied, even on the same dive, from 5m to 15m.

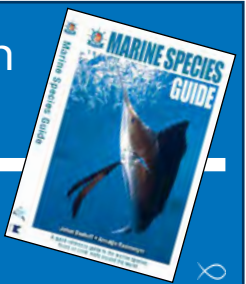
Apart from the snake that wrestled unsuccessfully to free itself from the bamboo of our bedroom wall, and the resort running out of water on the final morning, Oman is a secure and convenient dive location. 



WIN

Send your letter to us and win a Marine Life Species Guide

Here is a chance to be heard! If you have anything that you would like to share with OZDiver Magazine and other divers, send an email to Log Book at info@ozdiver.com.au. Remember that letters have more impact when they are short and sweet. We have the right to edit and shorten letters. In every issue, the winning letter will receive a Marine Life Species Guide. 



OZ NEWS



Photo by Bob Bobisavljevic, model Ivana

SSI Australia

SSI is the fastest growing Training Agency in the world today, and despite international uncertainty, SSI continues to add new Training Centres and Professionals by supporting them through webinars, promotional ideas and product improvements.

One example of this support was the Free Science of Diving Campaign. This program was offered to divers from ALL agencies. The promotion was overwhelmingly successful with more than 50,000 registrations worldwide totalling more than 3.5 million in retail support.

Now, we want to do the same thing by launching the WE WANT YOU Promotion globally – a free Professional Crossover Kit for all Scuba and Freediving Professionals* with the following goals:

- Acquire new Professionals to fix the permanent shortage of SSI Professionals for both SSI Training Centres in local and resort markets
- Connect new SSI Professionals to the SSI Instructor Trainer Network to promote Specialty Instructor and Assistant Instructor Trainer training
- Support Dive Professionals from all agencies by offering them an opportunity to increase their credentials and employment opportunities.

This is their No Risk Opportunity to join the SSI Professional Network. Here is how the WE WANT YOU Promotion will work:

- **CROSSOVER REGISTRATION** – Professionals can simply go to any SSI Training Centre and register or register directly online and SSI will issue the free Digital Crossover Kit. Registration at a local SSI Training Centre is preferred, because Professionals want to work after finishing the Crossover.

- **ACADEMIC TRAINING** – Prior to attending the Virtual Crossover, all candidates are required to finish the Home-study Crossover materials and take the Online Final Exam. Once completed, either SSI or the Training Centre will schedule the Virtual Academic and Skills Video Sessions and in-water training.


- **IN-WATER TRAINING** – The In-Water Session will require a confined water session for a skills review to be performed by an Instructor Trainer. This session is either organized centrally by the Service Centre or by an outside Instructor Trainer at no-charge to the candidate.

- **FEES** – For all active Professionals, SSI will sponsor the Digital Crossover Kit and fund all equivalent certifications. However, all candidates must pay a Registration Fee, which includes the Crossover Training, Physical Materials and Professional Renewal until the end of 2021.

- **PROMOTION RUNTIME** – The free Professional Crossover Kit will run until January 31, 2021 with the mandatory In-Water Training sessions beginning October 15, 2020, onwards. All registered Free Crossover Kits not processed by March 31, 2021 will automatically be deleted.

The SSI Network is expanding so rapidly that the demand for Professionals exceeds supply. The WE WANT YOU Promotion is designed to compensate for this shortage, support business recovery and stimulate further international growth!

If you have any questions, please do not hesitate to contact your Service Centre!

- **NOTE*** – Only Professionals from current RSTC Members and/or ISO Certified Training Agencies are eligible for participation in this program without having to attend an Instructor Evaluation at additional charge. 

AUSTRALIA INTERNATIONAL DIVE EXPO (AIDE) 2021

Australia Intl Dive Expo will take place from 29th July – 2nd August 2021. All works are underway to give the excitement to all attendees to the show.

If you're keen to share any stories, be it technical, scientific, experience and knowledge that contributes to dive education, please contact us.

For exhibitors keen to be part of the expo to showcase your products and services please do contact us too. Registration is open now.

Any enquiry, please email us at info@australiadiveexpo.com. Stay tune for more updates. Stay safe, stay healthy and safe diving. 



In collaboration with



Winners Announced The Underwater Tour Awards 2020

International Underwater Photography Competition

The organisers of the Underwater Tour Awards announced the winners of its inaugural, prestigious international photography competition in a livestreamed online award ceremony this evening.

"We are delighted with the high calibre of submissions received in this, our first year" said Darren Jew, Convenor and Head Judge. "The competition gallery takes us on a remarkable visual tour, showcasing the fine work of competing underwater wildlife photographers and celebrating the natural wonders of the underwater world".

The annual competition encourages and inspires passion for photography, exploration and discovery from behind the lens and helps raise awareness of the world's incredible, fragile marine and aquatic inhabitants and their environments.

To ensure the natural world is depicted both creatively and honestly, with due regard shown to the welfare of all marine life and habitats all images entered were subject to the competition's Ethics Review process, conducted by renowned Marine biologist, Dr Richard Smith, before moving to the first round of judging.

Led by Convenor Darren Jew, Canon Master and six-times winner of the AIPP Professional Nature Photographer of the Year, the international judging panel; Juergen Freund, Aaron Wong, William Tan and Jasmine Carey, reviewed hundreds of images submitted by photographers from all over the world.

The Guru Award Winner:

The competition's Guru Award was created to celebrate an underwater photographer with talent, skill and creativity who can deliver with more than one high calibre image an award for an excellent photographer, not simply an excellent photograph. From a pool of the highest scoring entrants who entered 5 images in the Awards. Winner: Chelsea Haebich, Adelaide, Australia

Category Winners

Underwater Characters

Winner: Simone Caprodossi, Byron Bay, Australia

Underwater Scenes

Winner: Pavlos Evangelidis, Brussels, Belgium

Aquatic Abstract

Winner: Louise Nott, Sydney, Australia

Topside Scenes

Winner: Yung Sen Wu, Keelung City, Taiwan



Underwater Black and White

Winner: Richard Condlyffe, Battle Creek, USA

The People's Choice

Winner: Pierre-Laurent Pablo, Nimes, France

The Guru Award winner Chelsea Haebich has won a humpback whale swim experience in the warm waters of Tonga provided by Whales Underwater. In addition, over \$5000 in cash and partner product prizes were awarded to category winners.

"I am still a few inches off the ground. I genuinely did not think I was in for a chance as I watched all the other amazing shots winning categories! Just WOW!" exclaimed Haebich. "Winning this award might make me stop doubting myself and have a bit more faith in my abilities. Something I struggle with for sure!"

"Moving forward I hope it can put my work out there further and bring people and connections into my life that will help me grow as a photographer and further share this astounding world with more people" She continued "I love seeing people's curiosity and hearing their questions about the Underwater World. If winning lets me share that more, grow more and impact more people then that would be wonderful and very fulfilling."

"The Underwater Tour Awards are a natural community extension of the annual Underwater Tour nationwide speaker series each May" said co-founder Juliette Myers. "We'd like to thank Whales Underwater, Memento Pro and Nautilus Lifeline for supporting the Awards.

We'd also like to thank our Tour Partners; The Arenui Boutique Liveaboard, Wakatobi, Walindi and Febrina, SEACAM, Memento Pro, Christmas Island, Paradise Taveuni – without whom our annual speakers tour would not be possible".

Co-founder Tim Hochgrebe added "Thank you to everyone who has taken part this year. Planning for the Underwater Tour Awards 2021 is already in full swing and we are looking forward to rolling out the Underwater Tour 2021 around the country from 13-20 May".

For further Underwater Tour 2021 information, please contact Juliette Myers: juliette@internationaldestinationmarketing.com.au

Dive Schools / Operators / Organisers / Instructors

Do you have any interesting, newsworthy info to share with the dive industry? If so, we would like to invite you to send us your OZ News section for possible inclusion in the magazine (please note that inclusion is FREE of charge).

Here's what we need:

- Newsworthy stories (promotional material will not be accepted)
- Word limit: 100 words
- Text prepared in a Word document
- Accompanying high-resolution image(s) are welcome (please supply caption and image credit)

Please send to info@ozdiver.com.au



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Crabs on the March

Something spectacular happens around Port Phillip Bay
every year



Once a year around the winter solstice when the moon is full and the water is cool, thousands of Spider Crabs (*Leptomithrax gaimardii*) make their way up from the deep water around Melbourne's Port Phillip Bay and congregate in the shallow waters to moult.

The crabs need room to grow and their hard shells need to go so that they can expand into a new softer shell.

No one quite knows why they choose to do this in numbers, nor why they do it in the shallows of the Bay...but they do.

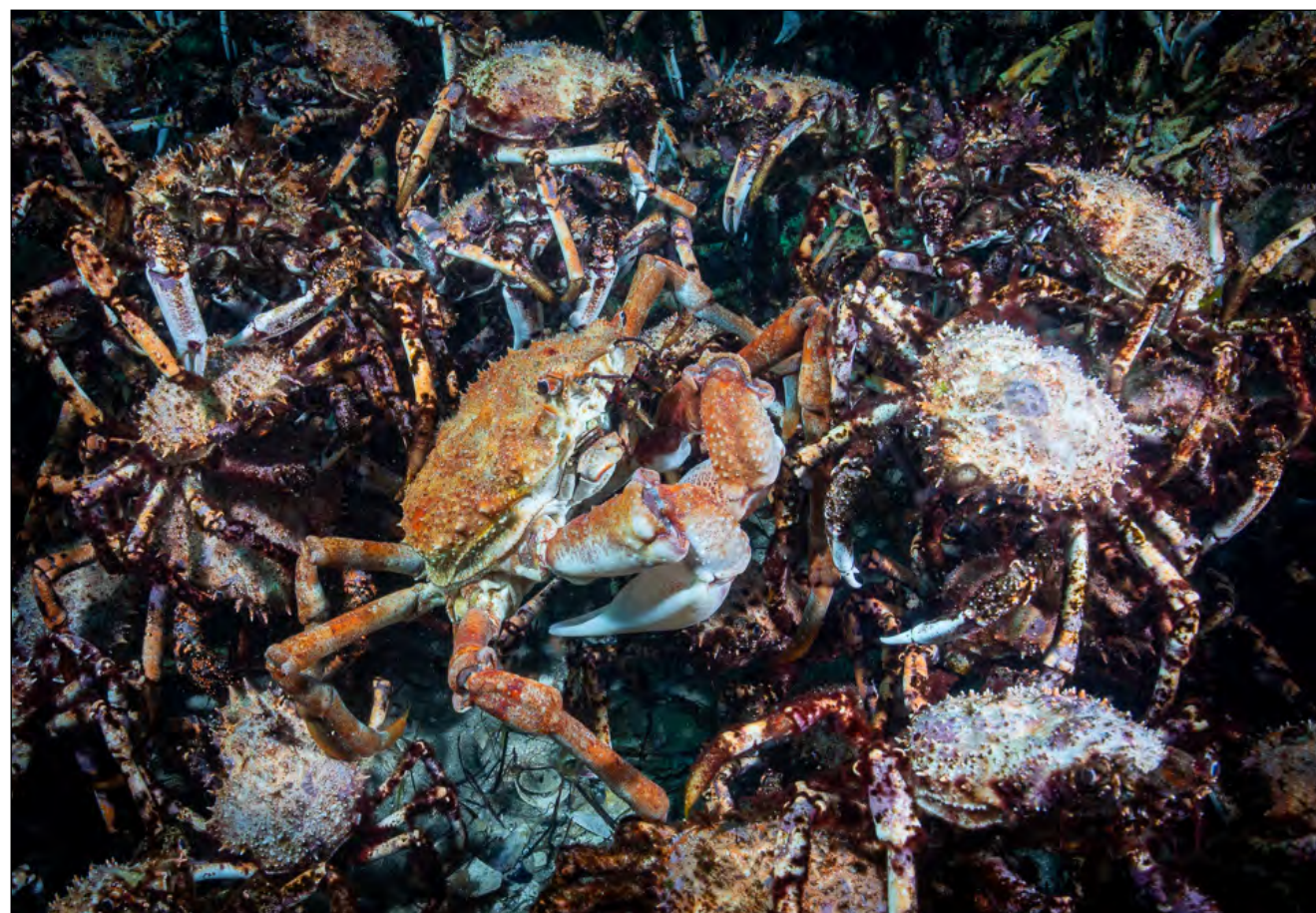
This year me and my dive buddy, Mathew Kempton, headed down from Sydney, to witness this once in a year

event. It looked as though the annual crab moult had been skillfully planned to take place one week after some of the COVID-19 lockdown provisions had been relaxed...now that is planning!

We also realised that, although some restrictions had been lifted, there would be no international visitors and no visitors from the states of TAS, SA, WA, NT or QLD ...probably a good year to go!

So, what is going on here? The Spider crabs have, for many years, moved into the shallows in large numbers and pretty much at the same time.

Large areas of Melbourne's Port Phillip Bay are shallow and, as a result, there are several piers that





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extend out into the bay and provide easy access to divers, snorkelers, fishers, and sightseers.

The easiest place to see the crabs is from these piers. The crabs congregate near the piers and then climb the pilings to moult.

By climbing the pilings, they keep themselves safer from the waiting rays for the few days it takes their new shells to harden.

The crabs have figured that there is safety in numbers. Their journey into the shallows exposes them, but they are even more exposed once they have shed their hard carapace and have only their new softer shell to protect them.

Large Smooth Rays, as well as some of the sharks, just love this time of

year and can be seen in numbers vacuuming up some the Spider Crabs.

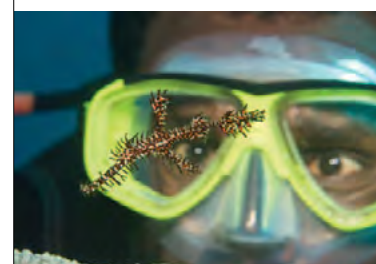
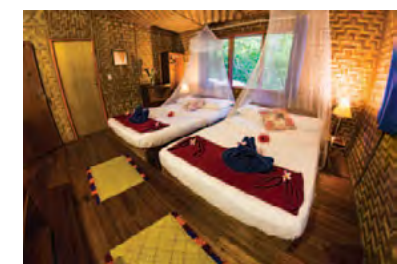
If you have a crab phobia...do not go. It will be like Indiana Jones and the snake pit!

If you want to marvel at 1,000 s of Crabs all moving with purpose to a few select spots, scrambling over the top of each other 6-7 deep and watch them shed their shell and pop out all new and shiny ..this is a unique event.

After a starring segment on Blue Planet II in 2017 this event is 'on the map'.

Unfortunately, in recent times it has become clear that the Rays and Sharks are not the only predators... humankind has joined the fray!





Picture a small private island, with white sandy beaches, tall palm trees, beautiful tropical gardens, traditionally-built, comfortable bungalows, magnificent sunsets and fine food.

Surrounding this little hideaway are some of the most healthy & colourful reefs and best fish life this planet has to offer...

Currently it is perfectly legal in Victoria to fill a bag with up to 30 crabs per person, per day...it is also legal to take them on scuba.

Just think about that...for the week or so that the crabs are aggregating you can take out over 200 crabs... perfectly legally.

A relatively small gathering of 20 people could take out 4,000 crabs over the same period...all perfectly legally.

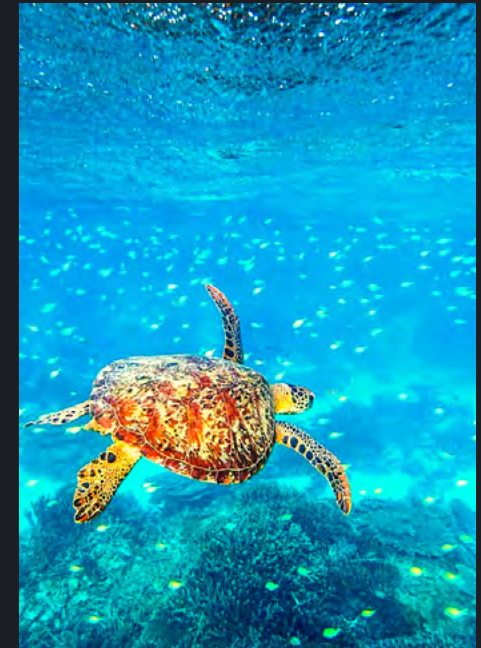
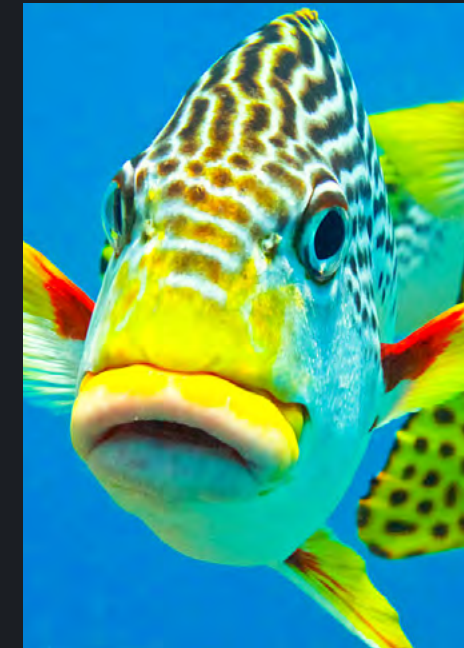
This surely cannot be classed as sport and we don't need Spider Crabs to provide us sustenance.

Given the crabs are 6-7 deep and congregating in the same area you can fill a bag of 30 crabs in under 2 minutes...if you are slow.



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Those fishing from the piers have taken to using chicken carcasses to attract the crabs and this year there must have been a special on chickens because the bottom was littered with them.

It was also littered with ancillary rubbish and discarded keep nets. The debris is bad enough but the catch limits over the period when the crabs aggregate is the real travesty.

Unless the Victorian Government

takes some action to limit the taking of the Spider Crabs over this short period...there is a real risk of there not being any in a few years.

If you want to keep enjoying this unique event, or would like to experience for the first time, I encourage you to drop a line to the Ministers for Tourism, Fisheries and the Environment.

The information is all on the Victorian government's website.





tdisdi.com/pfi



DITCH THE GEAR
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Sea Cucumbers

The name Echinodermata is made up of the Greek words 'echinos', which means hedgehog, and 'derma', which means skin. Holothuroidea is made up three Greek words; 'holos' means whole, 'thyron' means little door and 'eidos' means form. Despite its name and resemblance to a cucumber, the sea cucumber is an animal and, like the sea urchins and starfish, a member of the Echinodermata, the spiny-skinned animals.

At the end of the body is a mouth with a set of tentacles around it. If you touch them, the frightened animal withdraws the tentacles into its mouth. The sea cucumber feeds by extending these tentacles to catch and filter out food particles drifting in the water.

When sufficient food has accumulated, the animal folds the tentacles into its mouth and licks them clean.

It can also use the tentacles as fingers to pick up sand to feed into its mouth. Anything of nutritional value is digested and the sand, together with waste, is expelled through a posterior opening. The animal may consume and pass many kilograms of sand each month.

The posterior opening is found at the opposite end of the body to the mouth. It is through this aperture that the creature pumps water in and out of its body. The water is forced into passages

and branches called respiratory trees in which oxygen is extracted in the process of breathing.

If you lift a sea cucumber from the sea it 'holds its breath', keeping water in its body until, through desperation, it lets out a squirt. It then is, of course, unable to refill itself. With the water released, its body goes limp and floppy.

When put back into the water after a long period on dry land, it breathes fast to reestablish the correct oxygen level in its body.

In some parts of the world there is a certain little fish that makes the inside of a sea cucumber its home, using the posterior opening of the cucumber as its door.

The fish lives in the water inside the sea cucumber and occasionally darts in or out when the cucumber opens to squirt

water out of its body or take it in.

Most species of sea cucumbers have numerous short, flexible legs called tube feet. By coordinating the movement of many tube feet, the sea cucumber is able to creep slowly along the sea bed.

The tube feet end in suckers, with which the animal can secure itself firmly to a rock. Force is required to dislodge a sea cucumber, and some tubes may even tear off before the suction is broken.

Not all species of sea cucumber have tube feet though – some have only knobby bumps and others have tube feet on the underside of their body and knobby bumps on the top.

The sea cucumber has neither eyes nor a brain, but it does have a nervous system that coordinates the bodily functions and responds to touch and

taste. The animal is able to sense whether it is the right way up and, if it is upside down, it will use its tube feet to twist its body like a corkscrew until it rights itself.

The sea cucumber is unable to adjust to living in sea water with a low salt content; its body swells as it absorbs water. For this reason the animal does not venture near estuaries.

Some sea cucumbers are able to expel a tangled mass of sticky tubes from their posterior opening. These ensnare small animals such as crabs that could be perceived as being a threat.

In a similar process called evisceration, internal organs such as the respiratory trees and digestive tracts are expelled. The reason for this is unknown, but it usually happens when the sea cucumber has been disturbed. In time it is able to re-grow these lost organs. ■



50 Interesting Ocean Facts

Part I

1. The ocean is about 140 million square miles (362 million km²), or nearly 71% of the earth's surface.
2. The average depth of the ocean is 12 200 feet (3 720m).
3. The deepest point is 36 198 feet (11 033m) in the Mariana Trench in the western Pacific.
4. More than 97% of all our planet's water is contained in the ocean.
5. The top ten feet of the ocean hold as much heat as our entire atmosphere.
6. The average depth of the ocean is more than 2,5 miles.
7. The oceans provide 99 percent of the earth's living space – the largest space in our universe known to be inhabited by living organisms.
8. More than 90% of this habitat exists in the deep sea known as the abyss.
9. Less than 10% of this living space has been explored by humans.
10. Mount Everest (the highest point on the earth's surface at 5,49 miles) is more than

a mile shorter than the Challenger Deep (the deepest point in the ocean at 6,86 miles).

11. The longest continuous mountain chain known to exist in the universe resides in the ocean at more than 40 000 miles long.

12. The Monterey Bay Submarine Canyon is deeper and larger in volume than the Grand Canyon.



13. The Antarctic ice sheet that forms and melts over the ocean each year is nearly twice the size of the United States.

14. The average temperature of the ocean is 2°C, about 39°F.

15. Water pressure at the deepest point in the ocean is more than eight tons per square inch, the equivalent of one person trying to hold 50 jumbo jets.

16. The Gulf Stream off the Atlantic seaboard of the United States flows at a rate nearly 300 times faster than the typical flow of the Amazon River, the world's largest river.

17. The world's oceans contain nearly 20 million tons of gold.

18. The color blue is least absorbed by seawater; the same shade of blue is most absorbed by microscopic plants, called phytoplankton, drifting in seawater.

19. A new form of life, based on chemical energy rather than light energy, resides in deep-sea hydrothermal vents along mid-ocean ridges.

20. A swallow of seawater may contain millions of bacterial cells, hundreds of thousands of phytoplankton and tens of thousands of zooplankton.

21. The Blue whale, the largest animal on our planet ever (exceeding the size of the greatest dinosaurs) still lives in the ocean. Its heart is the size of a Volkswagen.

22. The Gray whale migrates more than 10 000 miles each year, the longest migration of any mammal.

23. The Great Barrier Reef, measuring 1 243 miles, is the largest living structure on earth and it can be seen from the moon.

24. More than 90% of the trade between countries is carried by ships and about half the communications between nations use underwater cables.

25. More oil reaches the oceans each year as a result of leaking automobiles and other non-point sources than was spilled in Prince William Sound by the Exxon Valdez.

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Sharks in Deep Trouble

With ever-increasing fishing pressures, sharks are being purged from the ocean and around the world their populations are plummeting.

Part II

In Singapore, Taiwan and Hong Kong, the largest centres for the shark fin trade, dried shark fins fetch up to US \$300 per kilogram. Faced with depleting shark stocks in their own backyards versus an all-time high demand for fins, these foreign traders increasingly turn their attention to the southern seas.

In Ghana, fishermen receive up to US \$40 for the same fins per kilogram. It makes for a very lucrative business when you're eking out a living as a subsistence fisherman. Yet, on the restaurant table in Asia, a bowl of shark fin soup costs up to US \$120.

Some believe it gives them strength and virility, despite the fact that it has no nutritional value. It derives its taste not from the fins (which are merely cartilage and compare to eating your fingernails) but from fish stock. Other valued shark

parts are the jaws, especially those of the protected great white shark. Also popular is shark cartilage, touted to be a cure for cancer.

single shark cartilage plant in Costa Rica reportedly turns more than 2.8 million sharks a year into cartilage pills, yet its cancer-healing properties have not been proven.

The above figures indicate the monetary values within the shark industry, but recent studies have proved that a live shark is worth much more than a dead one.

In the Maldives it has been estimated that a dead shark is worth less than one quarter of the revenue generated by a live shark in the tourist zone.

All over the world the great white shark

and ragged tooth shark eco-tourist industry that brings millions in foreign currency to the country each year. For most nations, however, the preferred shark is still a dead one.

A great number of shark species is traded internationally by more than 125 nations. Although nearly every large-scale shark fishery operating in the last century has ended in collapse, global shark exploitation and trade remain unregulated.

No cohesive international management of sharks exists and only a few nations manage shark fisheries in their own waters.

Africa, in particular, lacks shark conservation and fishery management policies. This is largely due to a rapidly growing human population that is driven by the demand for food and the need to improve its economy.

Added to the problem is the lack of skills and resources available to construct management plans. Worrying, too, is the trend in some developing countries

of moving from traditional to industrial fisheries, which remain the principle source of mortality for the majority of sharks.

Apart from being directly targeted by various fisheries worldwide, millions of sharks are also captured incidentally as by-catch, or more appropriately 'by-kill', by longline fishing vessels.

If the demand for shark products continues unabated and if international convention agreements are not enforced, an overkill of the ocean's apex predators is inevitable. The establishment of more protected marine areas can also not be delayed.

The repercussion is that the predator-prey relationship, which took millions of years to evolve, will be threatened with collapse and the genetic and species diversity of the ocean will be altered and diminished.

What this will mean to us is uncertain, but we are all part of the great web of life and undoubtedly there will be devastating long-term effects. ■



Preventing Panic

A quick guide to keeping your cool

With a desire to explore the unknown, divers put their heads underwater in some very unnatural environments.

While relying on a single unit of life-support equipment, it is no surprise that divers occasionally lose their cool. Divers who become startled or face difficult problems underwater can become overwhelmed by fear or anxiety and behave wildly — and without thinking, they panic.

Sometimes panic is completely obvious: Divers may thrash at the surface, stare at you with wide eyes, spit out their regulators or fail to communicate.

Whether divers are panicking at the surface or deep underwater, an intervention can prevent them from injuring themselves or others. Rescue divers and dive professionals are trained to recognise panic and intervene, but

all divers can take measures to prevent panic before entering the water. Most people do not openly admit their fears before diving: Egos and unwillingness to stop someone else's dive lead many uncomfortable divers to enter the water despite their uneasy feelings.

Talk with your buddy before diving, and make sure both of you are comfortable with the dive plan.

Discussing any concerns may allay a person's fears and make their dive better and safer. If you notice your buddy is being unusually talkative or quiet, avoiding certain subjects, compulsively checking gear, repeating questions or acting strange before a dive, continue your communication.

Stay positive and reassuring, but don't dismiss fears or pressure a hesitant person to dive. After entering the water,



if you see your buddy struggling with equipment, giving improper signals, suddenly losing buoyancy control or breathing rapidly, assist them as soon as you are able.

Easy assists such as reseating a low-pressure inflator hose on a buoyancy compensator or securing an octopus regulator can help reassure your buddy.

Stopping to think and breathe can make a big difference for a diver who is uncomfortable: It creates a window of time to solve the problem and gives the diver time to relax, preventing their discomfort from escalating to panic.

If you frequently become nervous underwater, think about what makes causes your anxiety, and plan how to resolve it. If clearing your mask is the bane of your existence, practice in a pool until it no longer scares you; if you worry about entanglement, get an easy-

access knife holster.

You can't plan for everything, so if you or a buddy experiences discomfort underwater, remember to stop, think and act in accordance with your training to prevent panic.

If the dive becomes overwhelming, ascend to a shallower, more controlled environment or end your dive as safely as possible.

Keep your cool, prevent panic, and make all your dives injury- and accident-free. ■





"The reef systems here are some of the most pristine I have seen anywhere in my dive travels around the globe, and Wakatobi resort and liveaboard are second to none. The diversity of species here is brilliant if you love photography." ~ Simon Bowen



An experience without equal

At Wakatobi, you don't compromise on comfort to get away from it all. Our private air charter brings you directly to this remote island, where a first-class resort and luxury liveaboard await. Our dive team ensure your underwater experiences will create memories that remain vivid and rewarding long after your visit is concluded. You need only ask and we will gladly provide any service or facility within our power. This unmatched combination of world-renowned reefs and relaxed luxury put Wakatobi in a category all its own.



www.wakatobi.com

GLOBAL NEWS

Lens Beyond Ocean (LBO) Photo Competition

In light of the Covid-19 pandemic, the Malaysia International Dive Expo (MIDE) will now take place from 4 – 6 December 2020.

As a result, the Lens Beyond Ocean Photo Competition will extend its final submission date to 1 November 2020.

Currently in its tenth year, the LBO competition continues to grow each year, drawing in more than 850 exceptional underwater photographers from around the world; as well as equally high quality prize sponsors.

Prizes

From dive travel packages to some of the best dive spots in Asia to top-of-the-line dive gear and camera equipment worth USD 25,000, participants have incredible prizes to look forward to in this competition.

Judges

The competition will be judged by renowned underwater photographers including Tobias Friedrich (Germany), Jason Isley (United Kingdom/Sabah) and Nurul Yazid (Malaysia).

Be A Winner

If you are a diver and passionate about sharing your underwater story and sightings, LBO presents a great opportunity for you to showcase your talent.

1st and 2nd place winners will be selected in each of the seven categories. Other images selected by the panel of judges will be awarded the honorable mention of "Memorable Pictures".

Deadline

The final date of submission is 1 November 2020.



Winners' Announcement

Winners will be announced on 27 November 2020. All winners will be awarded at Malaysia International Dive Expo (MIDE) on Saturday at 11.00am on the main stage.

Winners' Gallery

All winning photos will be displayed during MIDE at the foyer from 4 – 6 December 2020 at the World Trade Centre, Kuala Lumpur. Winning videos will be showcased on the big screen on the main stage.

Call for Sponsors

Businesses and organizations keen to sponsor the event or donate prizes will benefit from expansive international exposure. Your organisation's logo will be present on all print and online promotions and collateral. This includes being listed as a sponsor on the Lens Beyond Ocean website with a link to your organization's website; logo presence and brand promotion on social media; and placement on the Lens Beyond Ocean gallery banner as well as the venue banner displayed during MIDE 2020.

For more information, please visit www.lensbeyondocean.com



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UNDERWATER PHOTOGRAPHY
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**AMAZING PRIZES ARE
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The **Hottest** and **Cooldest** Dive Expo in Malaysia is bringing to you prizes from the best dive destinations in Asia, Dive Equipment, Photography Gadgets and many more interesting stuff you're gonna love.

PARTICIPATE NOW!

Register at www.lensbeyondocean.com

CLOSING DATE: 1 NOVEMBER 2020



MALAYSIA INTERNATIONAL DIVE EXPO
4-6 DECEMBER 2020
WORLD TRADE CENTRE
KUALA LUMPUR • MALAYSIA



Horizon

The Mares Horizon is a Semi-Closed Rebreather designed with one clear purpose: simplicity! It is easy to setup, transport, dive and maintain because every component of the unit is accessible by the user.

EXTENDED DIVE TIME / LONGER DIVES

The Horizon offers incredibly extended dive time compared to open circuit dives, giving the diver ample time to take in the wonderful underwater environment.

LIGHTWEIGHT / SIMPLE LOGISTICS

The lightweight system is the ideal travel companion and does not require dedicated cylinders or weights.

The unit's simple logistics allow the diver to use standard nitrox cylinders that are easily obtained from most dive destinations.

AS EASY AS NITROX DIVING / BUILT ON A FOUNDATION OF OPEN-CIRCUIT NITROX DIVING KNOWLEDGE

The Horizon SCR training builds on a foundation of open-circuit and nitrox diving knowledge, and the Horizon SCR controller intuitively maintains an ideal nitrox mix, depending on diver preferences. Fewer bubbles allow wildlife enthusiasts to experience close encounters like never before.

CREATES A NATURAL DIVING POSITION / IMPROVED TRIM

The Horizon SCR provides warm and moist breathing gas, and an ergonomic design that intuitively improves the diver's trim position and comfort.

FAIL-SAFE GAS OPERATION / MAXIMIZED SAFETY

The Horizon SCR was designed to maximize safety and ensure exceptional performance using multiple back-up safety systems and three sets of redundant electronics and power supplies.

A smart, diver-adjustable HUD visual indicator informs the diver of their gas supply status using a pulsing LED light, and in the unlikely event of an electronic shutdown, the diver can switch to the BOV, ensuring a continuous and safe supply of breathing gas.

EASY TO ASSEMBLE AND PREPARE / SIMPLE SET UP

One of the key attractions of the Horizon SCR is its incredible ease of use. It is simple to set up, requires no tools, has easy access to the scrubber canisters for filling, and has



non-interchangeable, colour-coded, quick release corrugated breathing hose connections.

READY FOR ADVANCED DIVERS / A WEALTH OF POSSIBILITIES


For the more advanced diver, the Horizon offers a range of advantages.

As well as a longer dive duration, the diver has dual gas possibilities – with the option of attaching a second cylinder with a higher O2 concentration for accelerated decompression.

INTUITIVE INTERFACE / INTELLIGENT INTEGRATED CONTROLLER

An integrated controller completes the Horizon, with a 2.8", easy-to-read colour display and optional wireless gas integration. This intelligent computer is effortlessly operated via two large piezo elements, especially when wearing gloves, and includes a scrubber monitoring system to keep the diver informed of their scrubber status at all times, and an audible warning alarm.

The Horizon encapsulates simplicity and safety through innovative design, like an open circuit concept, whilst boasting many of the advantageous characteristics of a rebreather system.

The simplicity and innovation of our latest collaboration means diving as we know it has reached incredible new Horizons. Become part of the SCR revolution from Mares and rEvo! 



Invitation to Participate in DAN's COVID-19 Study

DAN is looking for divers and freedivers who have recovered from a suspected or confirmed COVID-19 infection for a long-term study on the effects of COVID-19 on diver's health and fitness to dive.

If you have been infected with COVID-19, are recovering or have fully recovered, and are planning to return or have already returned to diving, please consider signing up for our study.

In 15-20 minutes you can easily complete this initial survey and then over the next 5 years you will be contacted periodically by DAN to follow-up on your diving career and any possible medical issues.

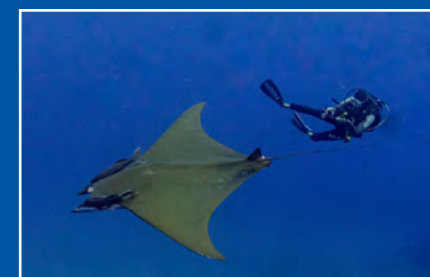
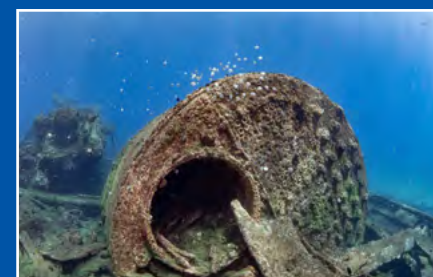
GET STARTED NOW: www.research.net/r/DANcovidstudy 



The Saints Are Calling

Saint Helena

The captain announced 10 minutes till landing, a palpable sense of excitement mixed with trepidation went through the passengers. Everyone on board had heard about the potential wind shear and buffeted landings on the island, one of the most remote inhabited islands in the world.



Most had never experienced it before and didn't really know what wind shear was or what to expect. This was to be my third landing on Saint Helena, following trips in 2018 and 2019. As we passed the island and then circled round on final approach, my neighbour looked a bit peaky. I reassured him that at worst there would be a little bounce upwards as we passed over the cliff face, but the sea was flat, indicating little wind. Just after King and Queen rocks sped past the port windows, we touched down without the slightest wobble.

St Helena, or "The Saints" as it is locally known to its 4,500 inhabitants, is home to the only known seasonal aggregation of adult male and female whale sharks, from January to March.

What looks like a microscopic, insignificant dot on a map, is in fact 122 km-squared of fascinating history, endemic birds and fish, and the limestone cliffs on the leeward side of the island host some beautiful caverns, also packed with fish, many of which are endemic, and make for superb photo opportunities. Lava fingers running into the sea attract Chilean devil rays and pinnacle

sites are home to schools of Rainbow runner and jacks.

It is also the only place in the world where male and female adult whale sharks are seen in equal numbers during an annual aggregation between January and March. Coupled with regular sightings of pregnant-looking females, this has led to recent speculation that the island may be the specie's hitherto unfound breeding ground. Other than the Galapagos, it is the only place where you can encounter adult whale sharks on scuba, and I have yet to go out on a snorkel trip and not spend an hour in the water with these the most giant of fish. Typically between 9 and 12 metres long, I'd guesstimate that the largest I've seen was 14 metres long.

Humpback whales cruise by in winter, and three species of dolphin (Bottlenose, Spotted pantropical, and Rough-toothed) are resident year-round. There are combined dolphin and bird-watching trips, where we get close to Black noddies, brown noddies, Red-billed tropicbirds, fairy and sooty terns, petrels, brown and masked boobies and the occasional Pomarine skua. Bird enthusiasts



also get excited about the abundance of elsewhere-rare Java sparrows, the island's endemic St. Helena plover, known as the wirebird, and the island's own moorhen.

I was flying in with the first of three groups of clients for a week diving the fish-filled waters on the leeward side of the jewel of the Atlantic in whale shark season. We'd met in Johannesburg the night before in order to catch the weekly flight that runs every Saturday.

The first group contained a number of fish specialists, super keen to add to their list of unusual sightings. They weren't disappointed. After the first two dives Alain Diringer, author of several fish ID books, said "well that's about half of them in two dives!". St Helena is home to 50 identified indigenous species of marine life, with more in the process of being classified. Some of the more common endemics are visible on most dive sites, and the St Helena Butterflyfish, a.k.a. the Cunningfish (for its ability to nibble bait off a hook without taking the hook), is on every dive, in hundreds of thousands. On most sites there is a spot with vast clouds of them, mesmerising divers. It feels like

floating in snowflakes as the fish wobble and wobble individually but swaying as a group. Their abundance at this time of year is due to their reproductive cycle; they spawn around the end of December to mid-January.

As well as hypnotising divers, they provide sustenance for many species. In the gallery there is shot of a grouper who has caught one the wrong way round (tail first), scorpionfish sit on the sand, sometimes next to each other, waiting for lunch to swim in front of their grumpy-looking mouth, trumpetfish are present in numbers I have never witnessed elsewhere, small schools of large Almaco jacks prey on them regularly, and soon after the spawning season, Chilean Devil Rays swim through the clouds of eggs and tiny juveniles, mouth open.

The Chilean devil rays here are impressive, the size of a small manta ray, the males reaching up to 3.7 metres disc-width. They were prone to turning up on the wrecks and off the tips of ledges all along the leeward coastline. Each week we had half-a-dozen encounters, occasionally with two individuals trying to mate, as it is the mating season for everyone here.

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The stars of the show, the adult Whale sharks, come here to mate, and, according to the world's leading whale shark specialists from the Marine Megafauna Foundation and Georgia Aquarium, this is the only spot in the world where we think this happens. It must happen elsewhere too, but they have no idea where. Despite being the biggest fish in the oceans, we know very little about it, and St Helena has become one of the key areas for research. What we do know is that their arrival here coincides with the annual Skipjack tuna and Pompano spawnings, the results of which the Whale sharks love to gobble down. We also green turtles mating on the surface several times.

On each of our twice weekly Whale shark snorkels (and each of the four snorkels the non-divers did), we got to spend an hour swimming alongside these 9-metre-plus docile giants. Twice we found them in James Bay, by the yacht moorings, and they also put in an appearance on a few of the dives.

The snorkellers were treated to large schools of pantropical spotted dolphins, Bottlenose dolphins, and Rough-toothed dolphins,

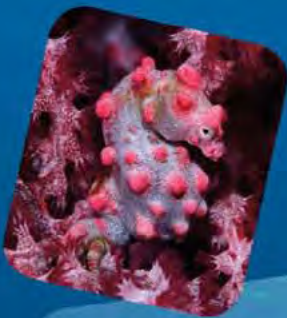
mating green turtles, and more Chilean devil rays. On a trip to Egg Island they also encountered Madeiran storm petrels, Red-billed tropic birds, Brown and Masked boobies, Brown and Black noddies, and Sooty and Fairy terns.

St Helena also has its own endemic bird; the St Helena Plover, a.k.a. the Wirebird. We found it up on the open ground just past Longwood, Napoleon's last residence, on the open plain that once held 6000 Boer War prisoners of war between 1900 and 1902. Our one day 4x4 island tour also took in the varied landscapes of the island, the Governor's residence of Plantation House and the oldest living terrestrial mammal on the planet, Jonathan the tortoise (189 candles on his last cake), the now-defunct flax mills, the mysterious Bell Stone, and numerous fortifications including Sandy Bay and the massive High Knoll Fort.

Overlooking Jamestown, the view from the top of the 699 steps of Jacob's Ladder leading to the Ladder Fort on the west side of town, and Munden's Battery to the east, were favourite short walks each week. For



*From Whale Shark to Pygmy Seahorse....
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MAGIC OCEANS

Anda, Bohol

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MAGIC ISLAND

Moalboal, Cebu

Whale Sharks, turtles, the Sardine Bait Ball, beautiful reefs: Moalboal has it all! With only 10 detached cottages, a house reef that's open 24/7 and with more than 30 dive sites to explore, Magic Island Dive Resort should be added to your next list of dive destinations!



two groups, I also arranged private visits of Longwood House and Plantation House on spare afternoons, and others walked up to the highest point of the island, Diana's Peak (822 metres ASL).

Dinners at the Mantis Hotel were as popular as ever, and I got the chef to concoct "Saintviche", a local derivative of the South American fish dish, Ceviche. Getting coriander is almost impossible, there is little local agriculture, despite the island's temperate climate with good rainfall, as the steep terrain makes mechanised farming impossible. Lime is also not commonly imported, so we used lemon, grapefruit, mint, parsley and some just-caught tuna. The result was universally popular, and hopefully it will be added to the menu on the next update.

Fresh fish is abundant, yellowfin and skipjack tuna and wahoo are the most common, and we also sampled Soldierfish, Bullseyes, and Grouper at Annie's. I also bought some fresh spiny and slipper lobsters from our excellent skipper, Duffy, and had them grilled at Annie's. All in, the lobster dinner cost us £11

for two half lobsters, salads, and chips.

Our favourite dive sites

Torm Ledge

To the northwest of Jamestown, Torm Ledge is a long narrow ledge running from the shallows out to sea, the bottom quickly drops to 40m, whilst the top is around 8 metres deep. It is covered in clouds of St Helena butterflyfish, an improbable number of trumpetfish, cavalley, Almaco jacks hunting the Butterflyfish, endemic parrotfish, and sergeant-majors. It is a popular spot for whale sharks to feed, and Chilean devil rays are often spotted here.

Long Ledge

Long ledge is a reef that stretches approximately 75 metres out to a maximum depth of 23 metres. The dive begins at 12 metres where you enter in through several archways that create a shelter for marine life of all species that are found around St Helena. This site is excellent for photography in the caverns are shafts of light play on the rocks and fish filling the caverns, As you swim along the reef, you become a part of



the fish that surrounds you, and with a bit of luck, a devil ray or two will cruise by.

SS Papanui

The Papanui was a coal carrying steam vessel that visited St Helena for water and other food supplies. On its journey to India it caught fire and ran aground in James Bay in order to save all on board. 1911 was the year that the Papanui became a monument in James Bay, lying in approximately 13 metres off water the tiller protrudes the surface occasionally as the tides moves in and out and marks one of the most popular dives sites around St Helena for both the novice and the experienced diver. Over the years the Papanui has attracted an abundance of marine life from Lobster, endemics to many other species.

Buttermilk Point

Buttermilk Point is named after the first commander of the gun battery on the point. This dive is a splendid drift dive that begins near another dive site, Dockyard. Using the natural mild current that drifts around this point it gently carries you approximately 100 metres towards Banks Battery. On the journey we observe Moray eels, Trumpetfish in numbers you only see around this island hunting St Helena Butterflyfish. Towards the end of the dive there are nine old cannons in about six metres of water.

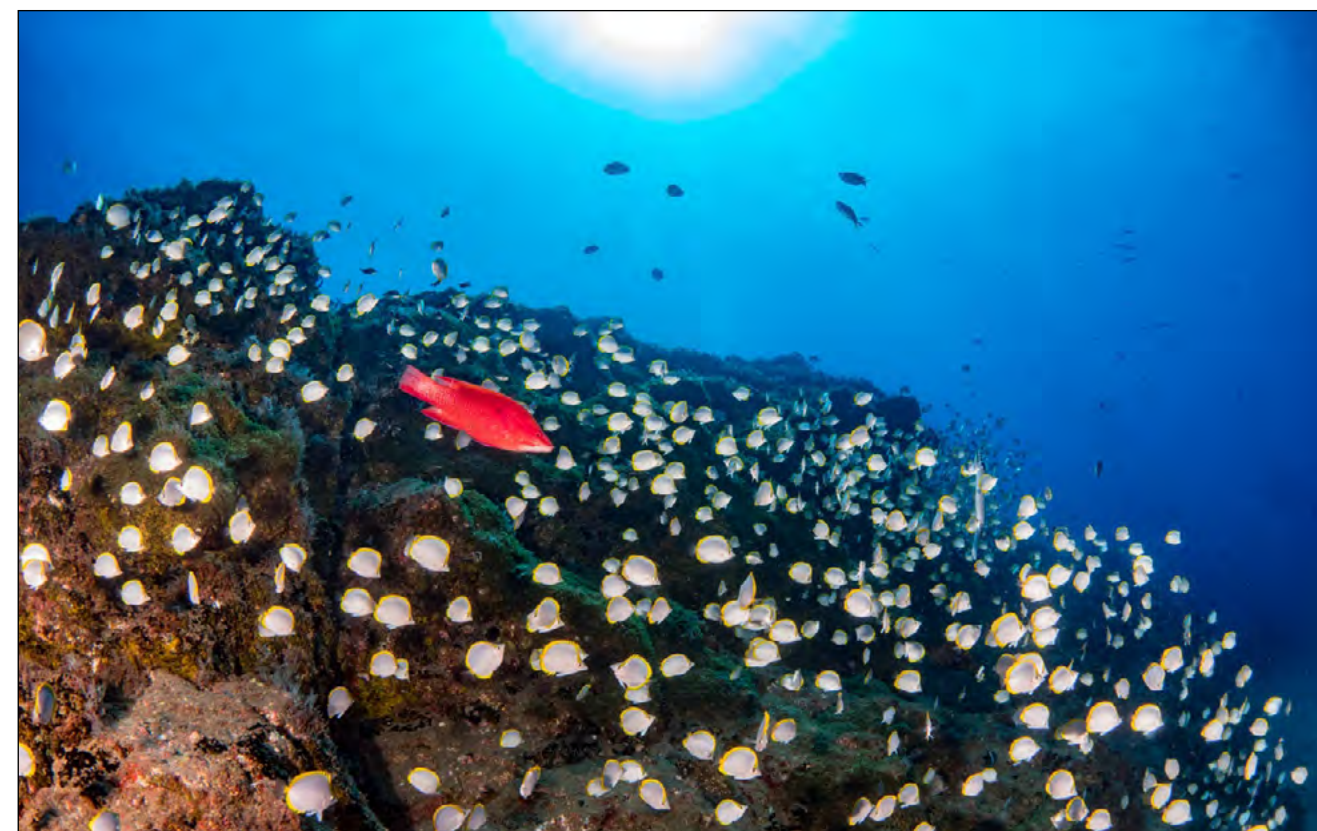
Sugarloaf

Named for the shape of the small mountain overlooking the dive site, Sugarloaf is an easy, gentle drift among schools of endemic fish. There is a ledge crammed with spiny lobsters, plenty of moray eels, a large school of Pompano are often in the area too, and Chilean Devil Rays are seen here frequently.

Horse Pasture Point

The dive starts in a splendid, shallow cave going from 8 metres deep to the surface. In theory it is a swim-though. maybe 40 metres long, but the exit at the surface is rough with wash. It is possible to surface inside the cave in a large air pocket, though the main attraction, is the "air fall" in the middle of the cave, made by the waves breaking above.

On exiting the cave, there is a ledge leading out to sea, popular with many endemics and common fish species, and, occasionally, a Chilean Devil Ray or two.



Bedgellat

The Bedgellat was brought to the Island as a salvage ship and was sunk to the bottom in 1999; it sits on the bottom in upright position as if it was floating on the surface. The depth of the Bedgellat is approximately 16 metres and has become a new habitat to various species of fish. Chilean Devil Rays love to play here.

RFA Darkdale Wreck

Sunk in the 1940's during the Second World War by a German submarine when a torpedo entered the bow section of this fuel tanker on a cool dark night. The Darkdale has attracted an abundance of marine life, namely Bullseye, Grouper, Cavalley, as well as several endemics to St Helena such as the Greenfish, Cunningsfish, and Rockfish. Another highlight is the descent and ascent where on many occasions tuna and barracuda are encountered as well as the gentle giant the whale shark, in season.

Frontier Wreck

The Frontier was a fishing vessel that came to the Island 1997 and was held in port for possession of illegal drugs. As the years passed, the ship deteriorated on the surface and was sunk in 1999. 22m metres to the top of the ship as it lies on its starboard side, and 28 meters to the bottom, it has now become a magnet for clouds of Cunningsfish, who in turn attract Almaco jacks and Chilean Devil rays.

Billy Mayer's Revenge

Buzzing with fish life, this ledge is very popular with Chilean Devil Rays and also has a few swim-throughs jammed with fish close to the shore.

Lemon Valley

Lemon Valley is a very popular camping and picnic site that locals visit regularly. It also gives you the opportunity to dive within the bay and enjoy a relaxing dive, various species of marine life can be seen and on many occasions Chilean Devil Rays come within the bay. Massive clouds of snowdrop-like St Helena Butterflyfish hang out on the end of the point, along with many scorpionfish and Almaco jacks looking for an easy snack. Maximum depth 20m.

Cavalley Point

Cavalley Point is a spectacular dive that involves swimming through archways that

takes you down and up to various levels as you swim through them. Its maximum depth is approx 18 meters where Bullseye can be seen in huge numbers, Crayfish, Cunnings Fish, Soldiers and Cavalley, hence Cavalley point. The Cavalley are seen swimming around the entrance of the archways in great numbers, on some visits to this site only a few are seen but they are always there.

LAND ATTRACTIONS

St Helena's scenery is spectacular. From the clear Atlantic waters past sheer cliffs and breath-taking rock formations, through arid red desert dotted with cacti, rolling green fields and flax-covered hillsides to a pinnacle of prehistoric cloud forest, taking a drive round the island is like visiting Cornwall, Scotland, Namibia and Madagascar in a day.

Probably best known as Napoleon's last place of incarceration, albeit it in the luxuriously appointed Longwood House, and death, the island has a rich history as a key revivalling station in the middle of Atlantic. In the heyday of the East India Company and the British Empire, this fertile, volcanic island had a 3,000-strong garrison to defend it and serviced over 1000 ships a year. The island has two large forts, a castle, and a plethora of batteries and defensive positions to visit.

For the energetic, there are 22 "post box walks" to the prominent viewpoints. At the summit of each, there is a stamp to prove you made the hike. There are also a dozen short walks that take around an hour each, from different points around the island. If that sounds too strenuous, we organise guided 4x4 tours around the island too. If all that isn't enough, there is a quirky nine-hole golf course.



TECH DIVING

A tight squeeze



Jamestown has a decent selection of restaurants and takeaways, and a couple of idiosyncratic, small bars, as well as the old Consulate to relax after a busy day.

Jamestown is home to the castle, a very informative museum, the Castle Gardens full of chattering and singing Indian Myna birds, and "Jacob's Ladder"; 699 steps rising 212 metres up to the Ladder Fort and Annie's Restaurant.

Where to Stay

(prices in GBP)

The 4-star Mantis Hotel is a combination of restored historic buildings dating from 1774 and a new contemporary building situated in the heart of Jamestown, a few minutes' walk from the sea front, swimming pool, museum, Jacob's Ladder, public library, archives, shops, and bars.

The buildings originally served as an officer's barracks for the East India Company, who administered the island at the time. They served as military accommodation up until the last garrison left the island in the 1900's. The original buildings were constructed from stone, bonded together with mud and mortar, pointed and rendered with lime which also formed the whitewash, with teak and iroko joinery and flooring. This 30-room boutique hotel has a large restaurant, the best on the island, bar and guest lounge and two outdoor terraces. All rooms have air-conditioning.

HALF-TREE HOLLOW BUNGALOWS

Five two-bedroom units with a splendid sea and sunset view, built in 2014, located above Jamestown with a magnificent view of the coast and the ocean. Each cottage has a small lounge, kitchen and a bathroom. Each bedroom has one double bed. There is a small supermarket in Half-tree Hollow and other food shops in Jamestown. Fresh fish can be purchased in Jamestown, a five-minute drive away. They can provide a rental vehicle (Ford Fiesta or similar too). From £60 GBP per night per bungalow. There is also a three-bedroom unit for £80 per night. The furniture in the bungalows was made locally by the owner himself. Some have kitchen units made from local timber, or some will have at least some piece of furniture made from local timber and deck chairs on the deck allow you to watch the sun go down and treat yourself to your own sundowner drinks.

THE CONSULATE HOTEL

The Consulate Hotel is almost like a museum, with numerous reading rooms and lounges and the dining and breakfast rooms full of period pieces brought across the Atlantic from Africa. The bedrooms are cooled by moveable fans and natural ventilation. On the weekends, the street-facing rooms can be a bit noisy as two pubs are close by. Double and Twin rooms are £100 pppn sharing, with breakfasts.

Dive operators

There are two dive operators on the island. Having been out to the islands, we chose to use Subtropic Adventures, who have been diving the islands since 2000.

Owner-operator Anthony is a local with unsurpassed knowledge and experience, and his ex-pat Divemaster Paul is an experienced diver leader with many hundreds of local dives logged.

Dive boats and equipment

Diving is conducted from RIBs (Zodiacs), that can take up to 12 clients. Cylinders are steel 12-litres, with valves that can take either DIN or A-clamp regulators.

The boats have an oxygen and first-aid kit in boards. Rental equipment is mainly Scubapro, wetsuits are 5mm.


Cost

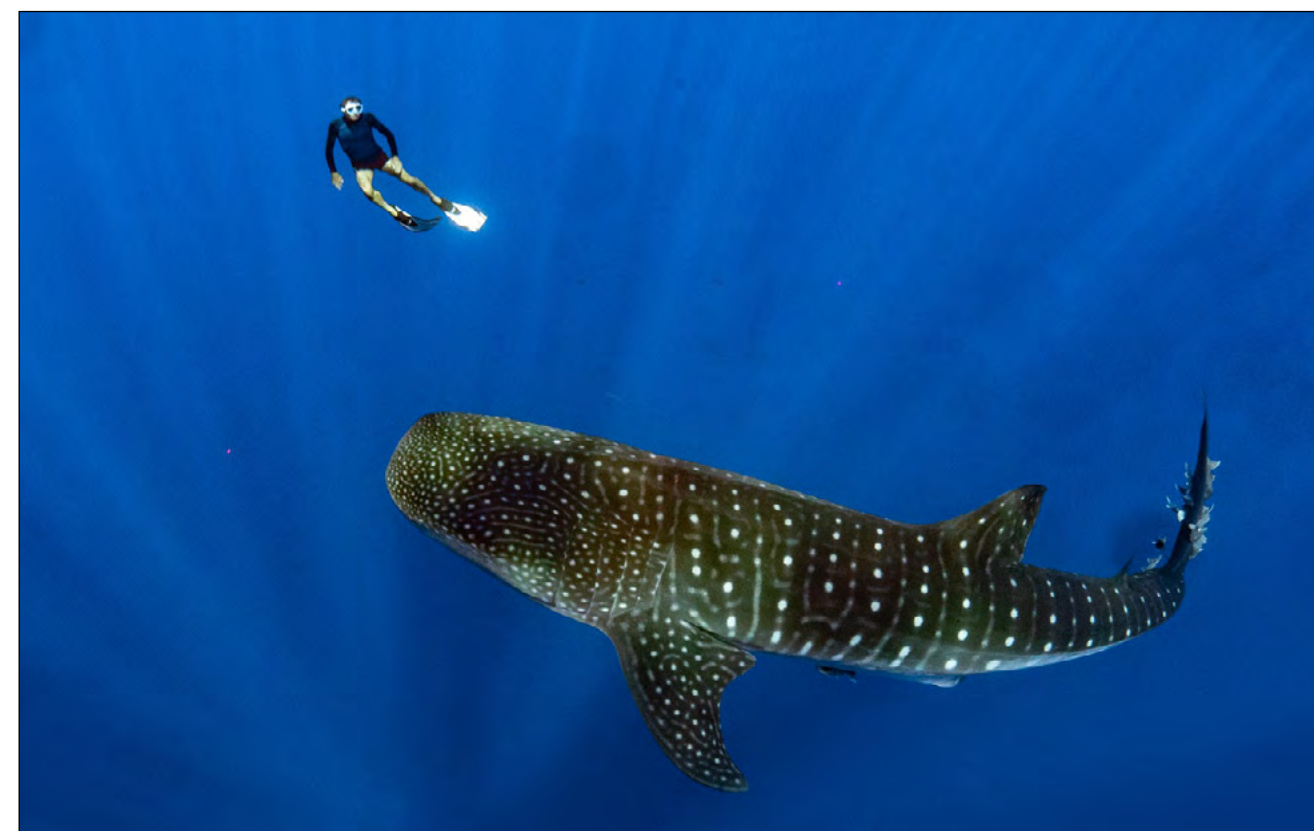
Dives cost £35 per dive, with cylinder, weights and weight belt.

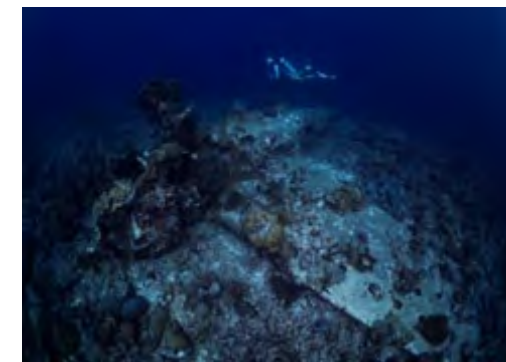
Tour Operators and Escorted Trips

Diving and adventure travel specialists Indigo Safaris have set up two escorted weeks in 2021. One week is in the self-catering bungalows at Half-Tree Hollow and other at the Mantis Hotel.

You can find the dates and rates here <https://www.indigosafaris.com/saint-helena-island-963270.html>

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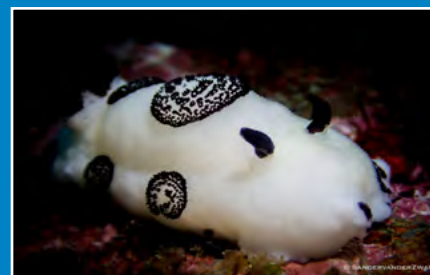
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Philippines

Getting through the Corona-times at Magic Oceans Dive Resort.



Dive the World

Philippines

By: Sander van der Zwan

Like in the rest of the world, people in the Philippines have to stay home as much as possible. Bohol however, is COVID-free, so we're free to go around the island.

If you can choose between staying at home, or staying at a 4* dive resort with world class diving – what would it be? Exactly! For me, Sander van der Zwan - a Dutch retiree who lives in the Philippines, this question wasn't difficult to answer.

With a handful stranded tourists, I stayed at one of the few open resorts in Anda, Bohol: Magic Oceans Dive Resort. Magic Oceans has approval to be open, having a COVID-protocol in place, so I should be all good and safe.

In Anda Bohol, we were lucky enough to wake up every morning with a view of the pool and ocean in this quiet and laid-back village. The best part of being in the 'secret dive gem of

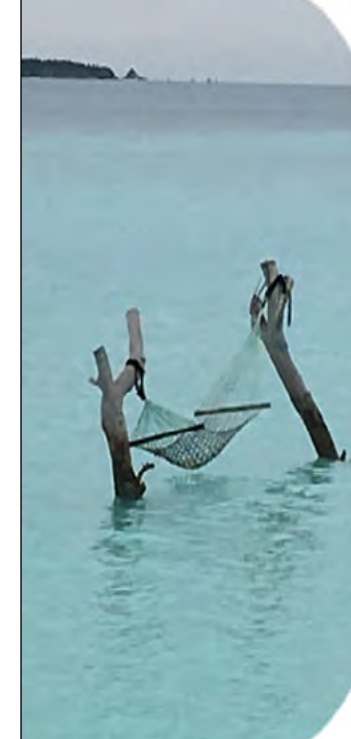
the Philippines': we could make daily (shore) dives! Drop the face mask and put on the dive mask.

Social distancing and safety guaranteed (with own dive gear).

"The toughest decision that we had to make daily was whether we would go right, to see fifteen turtles and beautiful soft corals, or go to the favorite left and find special nudibranchs in the sandy area and frogfishes on the wall."

The marine life seemed to enjoy the worldwide lockdown and looks to be more present and active than ever! We had some great and unusual encounters with all kinds of marine life.

From a huge Spanish dancer in only 50 cm depth, Whale Sharks, Melon Headed Whales during sunset and eagle rays that flew by!



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Tuesday morning. In normal situations it would be a day as every other day – being in my hometown in South-West of Bohol island, having a coffee in one of my favorite restaurants while watching hundreds of tourists passing by, looking for their adventure.

Well, as we all know, at the moment the situation is far from what we're used to and a lot of people would say that's not in their advantage. Except for me. I'm waking up in my own private deluxe bungalow in a 4* boutique dive resort at the other side of Bohol island: the little town of Anda, which is now even more quiet and peaceful than usual.

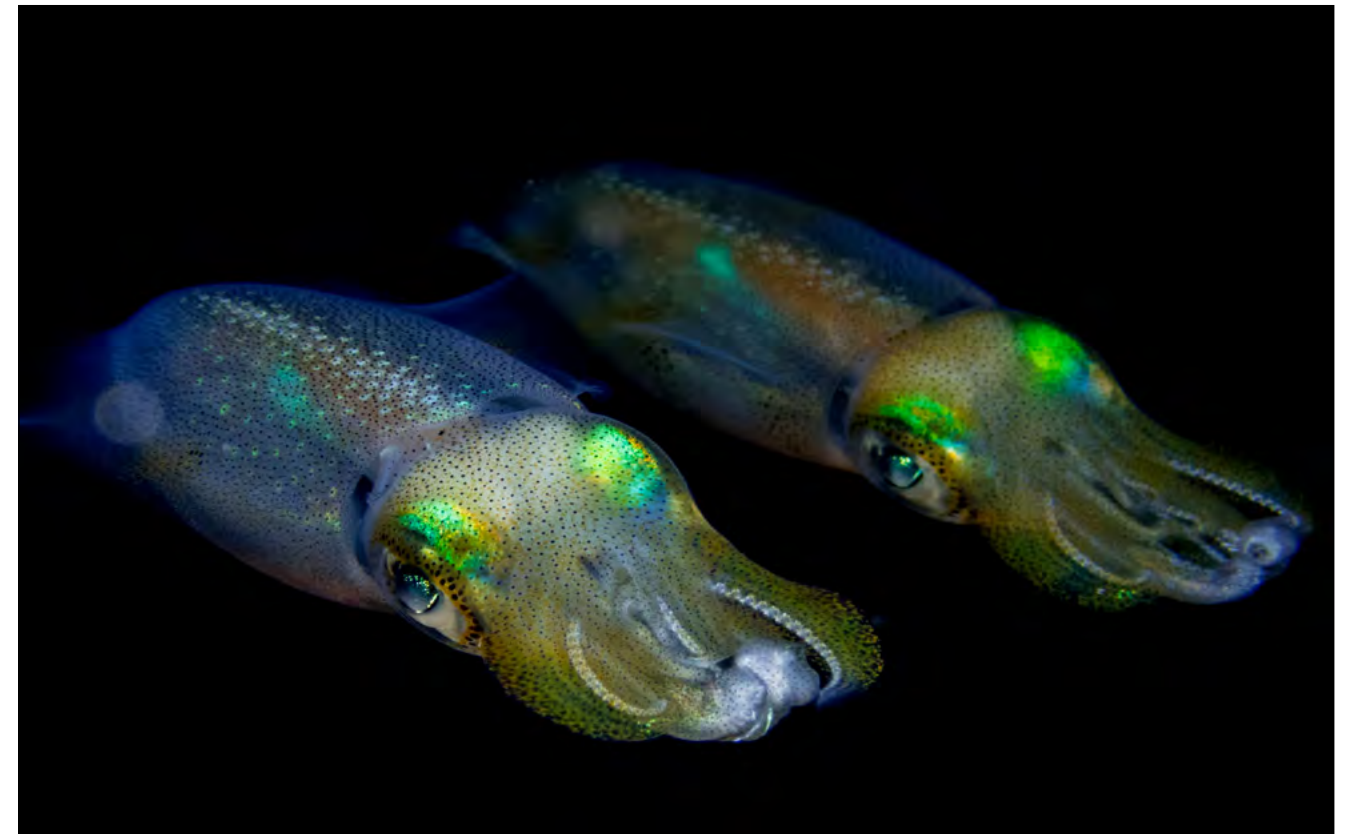
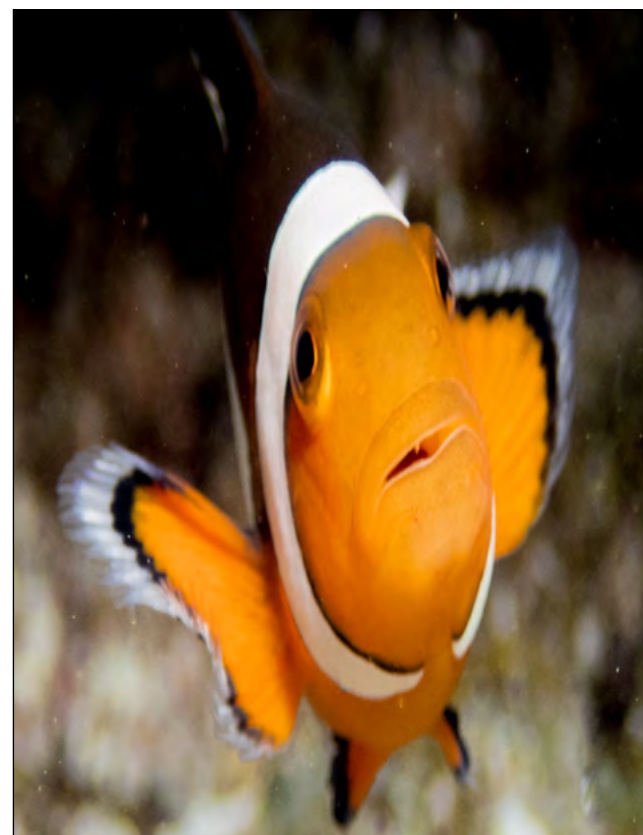
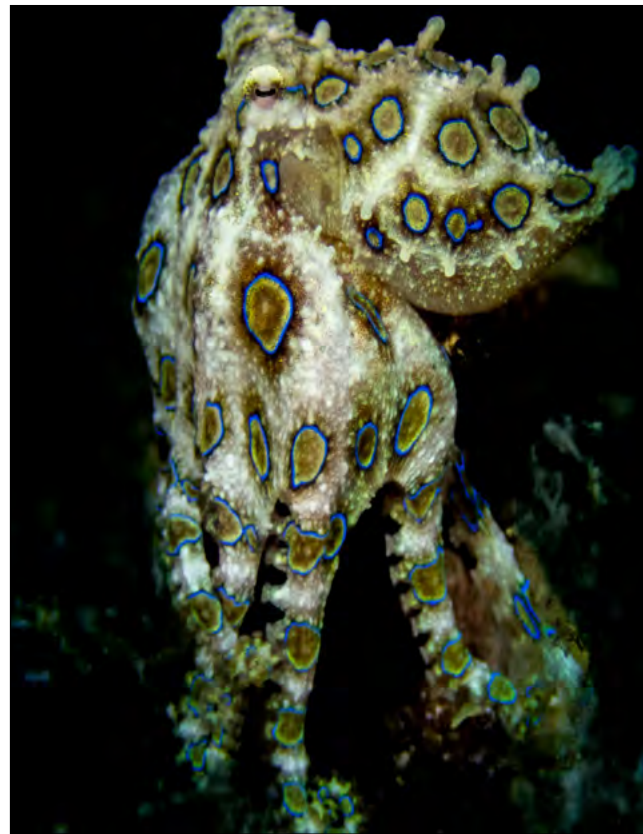
This town, an undiscovered village with loads of history, culture, pristine beaches, friendly people and a beautiful untouched underwater world with the most colorful and healthy corals I've ever seen, is my perfect, secret getaway in these times.

After a refreshing dive in the pool while catching the first sunrays of the day, I walk to the restaurant where my daily breakfast is immediately served by one of the lovely waitresses.

The stranded Portuguese couple and resort manager Eef are joining at the table, which is large enough to keep the required 1,5 meter / 5 ft. social distance without the need to shout. We discussed the schedule of the day – the dive schedule to be exact.

While water activities like diving are prohibited in most parts of the country, we were lucky enough to make daily dives on the house reef of Magic Oceans Dive Resort, only 50 meters away from the restaurants we had breakfast.

Whilst enjoying my breakfast and a coffee, the toughest decision was to be made: what did we want to see today?



Loads of turtles and beautiful soft corals? Or special nudibranchs in the sandy area?

The day before, we went to the right side of the house reef and were lucky enough to see Humpback Whales at the beginning of our dive. Followed by an Eagle Ray that flew by before we even recognized it was there!

After a well-counted discussion of 5 minutes, we decided to go left this time, fantasizing about what we might be able to see. Maybe another Eagle ray, maybe a Black Hairy Frogfish or an Ambon Scorpionfish. Maybe even a Whale Shark!

The special thing about Anda is that you never know what you will dive into. From the XXS Shaun the Sheep to the XXL Whale Sharks and even Killer Whales have been spotted lately.

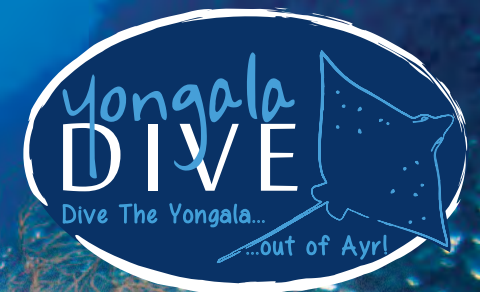
Most of the times the surprise turns out bigger than you expected!

What are we waiting for? We quickly finish our breakfast and get ready for our dive. We were with a small group and the dive center is huge, so no need to divide the group to be able to keep distance. Marlon, marine biologist and dive center manager of Magic Oceans Dive Resort, decided to join as well. We also called him "Eagle Eye Marlon", because of his ability to find EVERYTHING.

Within a few steps from the dive center we entered the house reef and slowly swam to the left. The noise of a pointer stick banging on a tank, followed just a few seconds later. I looked around and saw Marlon making the sign of a nudibranch, pointing at the sandy bottom underneath him. I swam to



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his direction. Normally it takes a few seconds before you find what you're looking for when it comes to nudi's, but this time I couldn't believe I was looking at a Spanish Dancer of easily 30 cm. long. WOW! Such a good start of our dive! I made a few shots with my underwater camera before we slowly continued while watching the colorful soft corals with clown fishes swimming around. Being a bit spoiled, we didn't pay a lot of attention on those way-too-energetic fish. After a short amount of time, we descended to 20 meters. Pablo, the Portuguese guy, banged his tank and made the shark-sign. Ha ha , that's a good way to catch our attention, was my first thought. You must know that Pablo is a funny guy – he always makes jokes, both underwater as above. Anyway, he kept on pointing in the blue. I screened the area, not too obvious so he couldn't make the "ha ha, I saw you watching for it"- kind of joke. However, it took less than a few seconds to

actually realize he wasn't making fun of us. I immediately saw the blue pattern and the moving, waving gills of this enormous creature. It really was a shark, and not just a shark: a Whale Shark of easily 6 meters long! It was floating close to us and kept on swimming in circles, like he was enjoying the bubble bath that we created by exhaling. A perfect timing for me to take some selfies with this great creature! Stop at your peak, is what we all thought, even though I had more than 100 bars left, we decided to swim back and quit the dive. Once on the surface we decided to make a night dive. The rest of the afternoon we would spend in the pool, what a terrible quarantine.

The night dives had a motto: shallower is better. Having "Eagle Eye Marlon" with us, we were able to see the most incredible underwater scene by night. It started with a small Black Hairy Frogfish and – probably the



same – Spanish Dancer on 1-meter depth. Followed by a Blue Ringed Octopus at 2 meters, turtles, nudi's like a huge *Platydoris*, squids and more nudi's! Even though I am not such a fan of muck diving during daytime, I appreciate these dives during nighttime. This dive was remarkable and definitely one not to forget! After spending 72 minutes underwater, we headed back to the shore, getting ready for a delicious dinner, made by my favorite home chef Errol. Of course, a drink in the bar afterwards couldn't be missed. No, being in quarantine isn't that bad.

The following day, I decided to head back to my hometown, but that didn't last long. South-West of Bohol island isn't the same without the many tourists who keep this area alive and kicking. So, after 2 days I was back in Anda, having my lucky day when resort manager Eef told me upon arrival he got the allowance from the local government to dive at the most incredible dive site in the area: Lamanoc! This dive is supposed to be a check-up dive, to check the status of the site. Well, I'm more than happy to join and check every tiny spot of this site every day if needed!

All set – the next day Marlon Eagle



Eye, the Portuguese couple, Eef and me were on our way to Lamanoc to check this dive site in all its glory. And, glory it was! Lamanoc is also known as nudibranch paradise, having a sloping sandy bottom where you can find all kinds of different nudi's, as well as other special and rare critters. Eef developed into a distinguished dive guide this time. He spotted a Blue Ringed Octopus floating around while tapping the bottom with the tops of his tentacles, looking for an early lunch, and a Mantis Shrimp, hidden in its secret place which turned out not be as secretive as he thought. The nudibranchs were still as colorful as always, just sitting there, being photogenetic. I've spotted one I've never seen before and got Marlon to have a look at it, trying to explain to him to remember it, so he can tell me more about this special one once we would be back at the resort. He knows every single original and difficult name of all of them!

After almost 60 minutes, we quit the dive and went to the surface. We all concluded the reefs status was still phenomenal, so we could report that back to the authorities. We figured it would be smart to tell them that this dive site needs to be checked more often and that we're more than happy to volunteer! Who knows how many times we could take advantage of that!

No, being in quarantine wasn't that bad at all, although I hope, like many others, that this pandemic will be over soon. However, the good thing about this worldwide crisis is the healing effect it seems to have on nature. It is incredible how the marine life is more present and active than ever! I was lucky enough to have some great encounters during the lock down, staying in a great resort that offered me the possibility to enjoy these times as much as possible. Hopefully we're all able to enjoy the marine life as much as I did in the last few months, in the near future as well. 🐠



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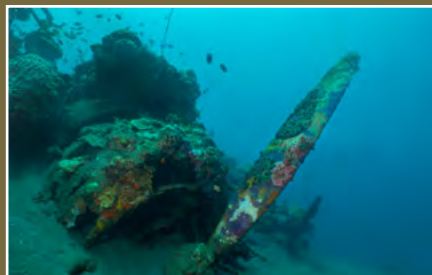


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Wrecks of the Solomons

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Exploration

Solomons

The Solomon Islands is a place I had long wanted to visit, as being relatively close to the equator it falls within an area having some of the highest marine biodiversity in the world. The warm waters of this archipelago provide spawning grounds and migratory routes for over 1000 fish species, as well as being home to dolphins, dugongs, sharks, rays, crocodiles and six of the world's seven species of marine turtles. As if this isn't enough, the islands also have a rich and fascinating history and a huge concentration of WWII shipwrecks and plane wrecks to dive on. Some of the most intense fighting of the war occurred here between 1942 and 1945, and over 70-years later there are still many reminders of those battles spread right across the Solomon's, both above and below water.

HONIARA

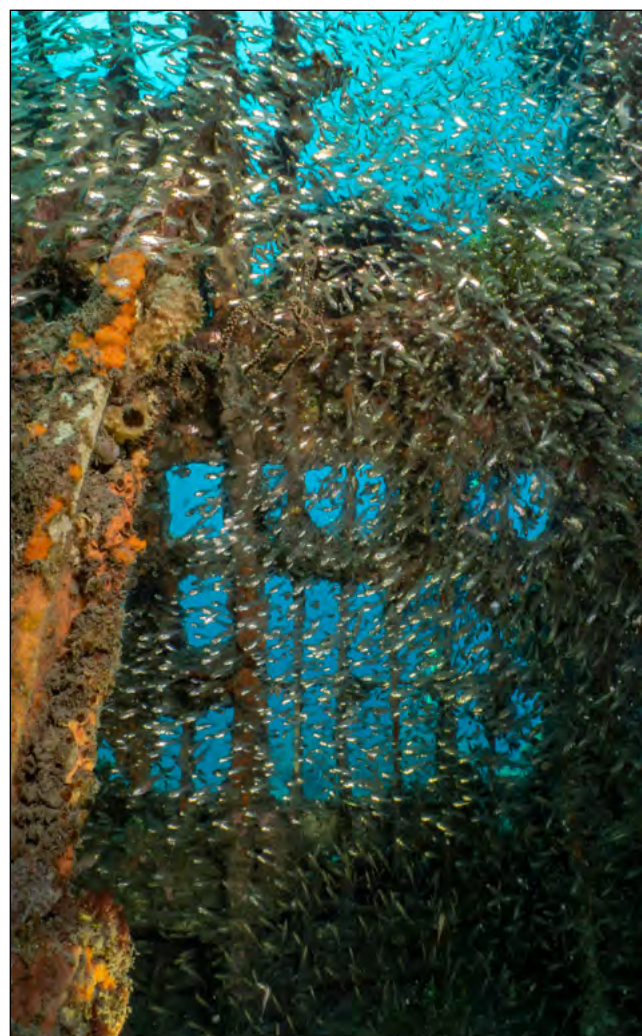
My diving in the Solomons began out of the capital city of Honiara with Tulagi Dive, a great little dive shop on the main island of Guadalcanal run by Australian ex-pat Troy, who has been diving in the Solomon's for over 30 years. Troy has a wealth of knowledge to share about WWII history and some fascinating back-stories to tell about many of the wrecks in Iron Bottom Sound - (given its nickname for the 50+ ships sunk there during the war). As the Sound is 600M deep many of the wrecks are well beyond diver depth, but of the 10 or so that are diveable, a handful can be done as shore dives



within an hour or so's drive of Honiara. Here are four of the wreck dives that can be done from the shores of Guadalcanal, preceded by an interesting drive on the back of a small truck weaving through potholes and picturesque villages to the north end of island, ...all part of the experience!

The Hirokawa Maru

This large wreck lies at an angle down the reef from only 3m at the bow to around 56m deep at the stern. The wreck is largely intact but well-encrusted with hard and soft corals, sea whips and colourful fans. There are some easy penetrations nearer the stern, and the engine is still visible along with the crankshaft and gearbox. Although there wasn't a lot of fish life on this wreck it is a fascinating dive.



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Exploration

Solomons

The Kinugawa Maru, This large Japanese transport ship is not far from the Hirokawa Maru, and was deliberately beached to unload troops and supplies after coming under attack by US forces.

You can see the engine block protruding from the water from the beach, but the stern of the vessel lies in 56m. This wreck is also well covered in soft corals and anemones, and there are still a few places where you can get inside, although care is needed not to stir up the silt. The highlight of this wreck for me though was the cathedral-like engine room at 8M, which is tiger-striped with shafts of light and shadow.

The I-1 Submarine

The I-1 sub is a bit further up the island off Vasale, and lies just off the reef in from 3-28M. It is barely recognizable as a submarine now having been rammed, blasted and partially salvage, but is still a great dive with lots of life on it.

There is also an interesting back-story to this wreck, and even a Kiwi connection! She was detected off Guadalcanal by two NZ ships, RNZN Kiwi and Moa, who dropped depth charges, driving the submarine to the surface. After a close quarter battle the RNZN Kiwi eventually rammed the sub damaging her conning tower and hull, and forcing her onto a nearby reef. The Japanese crew set destruction charges but failed to destroy her completely, and in the following weeks codebooks were retrieved from the wreckage crucial to US intelligence.

The B17 bomber, 'Bessy The Jap Basher' This was probably my favourite dive out of Honiara, - I have always liked seeing planes underwater (although I hope I never ride one in) and this B17 still has lots of recognizable features! Lying in only 4 to 18M depth and about 70 metres from shore it is covered in colourful soft corals and has good fish life around it. There is still a wing



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Image © Grant Thomas



Tropical bungalows in rainforest gardens with waterfront and garden views.

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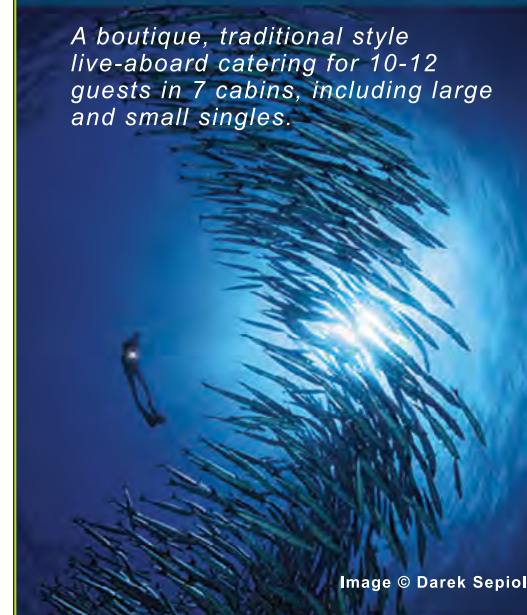


Image © Franco Banfi



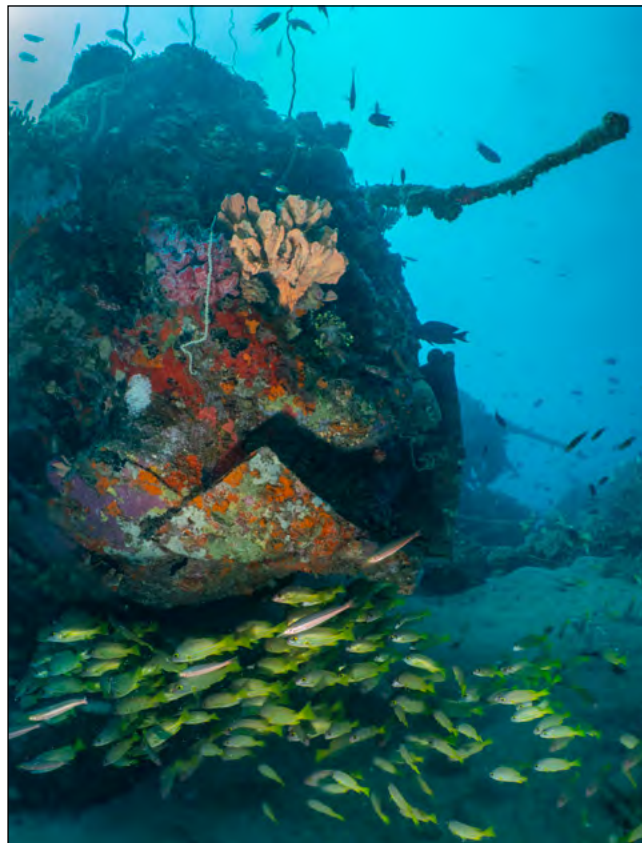
Image © Scott Johnson



attached and a prop' remaining, as well as three machine guns now encrusted in purple sponge.

Honiara City

With a 'surface interval day' to spend around Honiara before flying on to Gizo for more diving we took the opportunity to visit the Vilu outdoor war museum, an amazing collection of war relics from Japanese field guns to bomber and fighter planes. To be able to walk around and actually run a hand along the gun barrels or feel the bullet holes in a plane's wing brought home the reality of war far more than any words. Honiara itself is an interesting juxtaposition of modern and traditional life, and definitely worth a good look around – from the bustling and colourful daily market to surrounding sights like the US and Japanese war memorials. While the Solomon's climate is hot and humid, the accommodation in Honiara is to a very high standard, and the main hotels all have comfortable air-conditioned rooms and pools to cool



down in at the end of the day ...essential if you feel the heat as much as me!

GIZO

After 3 days of wreck-diving around Guadalcanal it was time to fly out of Honiara and on to Gizo for some mixed wreck and reef diving. Internal flights in the Solomon's are either on a Dash 8 or an 18 seat Twin Otter, real workhorses capable of short take-offs and landings, which make them ideal for island hopping!

Small islands present their own problems when it comes to building airstrips, and Gizo's novel way of solving this was by joining two small islands together and levelling them to make what is still a short runaway. Consequently Gizo must be one of the few airports in the world with no parking lot, because there are no roads on the tiny island and no vehicles; - just a jetty! I was greeted at the tiny terminal by Danny Kennedy, owner of Dive Gizo, who ferried us over to the dive shop on the main island of Ghizo (same name different spelling) to offload our dive gear, then across to yet another small island (Mbabanga) to spend the night at the iconic 'Fat Boys' resort.

With its laidback restaurant built out over the water on stilts, great food and quirky but comfortable bungalows - all with amazing views over the lagoon, this is a great place to stay! The diving out of Gizo proved to be a nice blend of wreck and reef diving, and we did 5 great dives with Danny getting a good overview of what is on offer here.

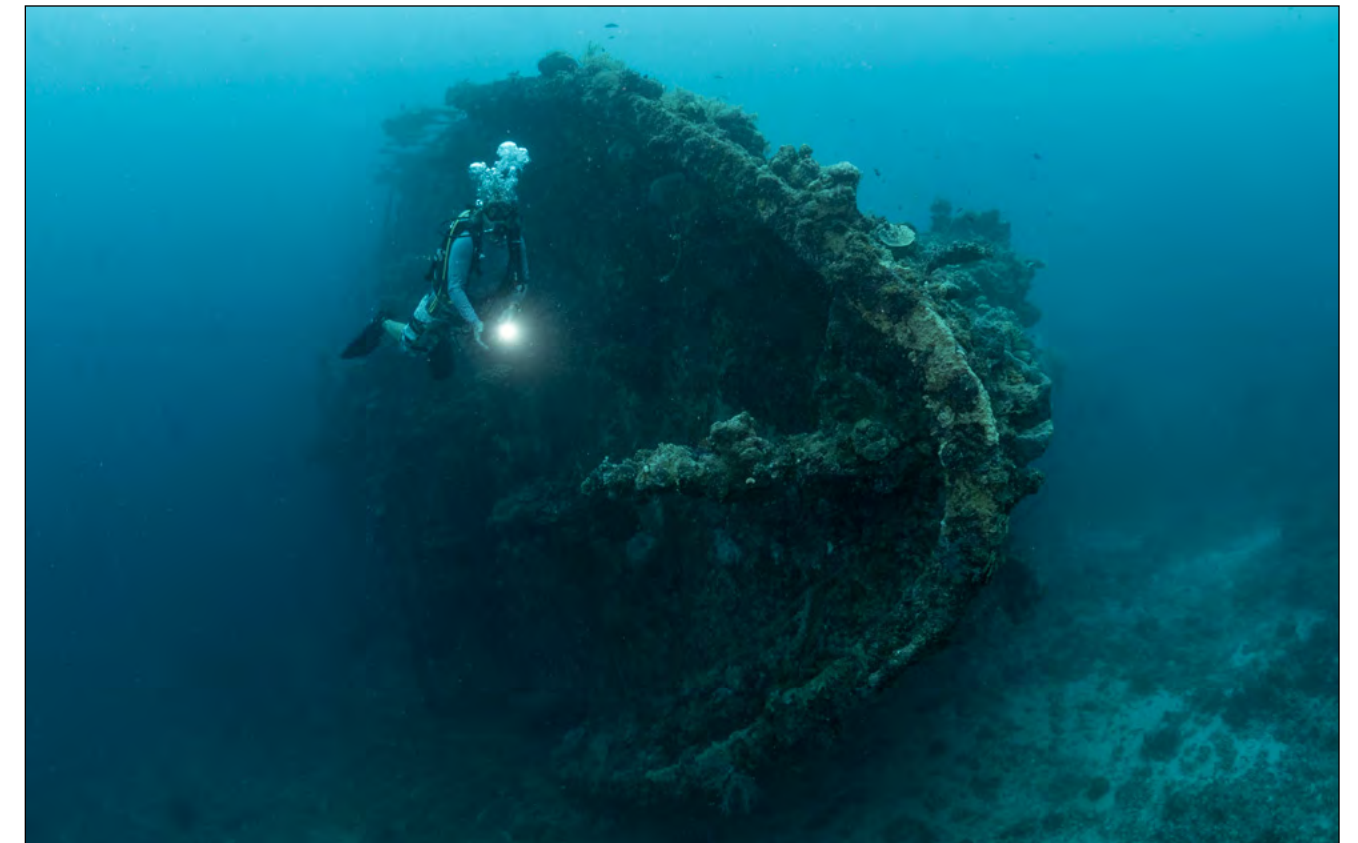
Toa Maru

Our first dive was on the wreck of the Toa Maru, a nearly intact 140m long Japanese transport ship. The stern lies at 37M and the bow at 7m, making it a great dive profile. Being intact it is easy to penetrate and take a look around inside, and there are still many WWII relics to see – from old Saki bottles and ammunition to a small Japanese tank! The clear water of the Solomon's means you can also get a great perspective of the whole ship from the bow, and there are lots of soft corals and fish life on the

deck and rails, - even Crocodile fish! For our second and third dives Danny took us to famous 'Grand Central', followed by 'Beach Dive'. Grand Central is renowned for having had the second highest fish count in the world on a single dive, (over 270 different species of fish), and Beach Dive for its surreal seascape of huge sea fans, bright red whip corals and massive wine-red barrel sponges the size of 100 litre drums!

Japanese Zero & Hellcat

Right in the heart of Gizo Harbour is a quick and easy dive on a Japanese Zero lying in only 9M of water; - the visibility isn't great but its still a fascinating dive, providing the strange juxtaposition of finning around an historic 70 year-old WWII wreck, only to surface a few metres away from a bustling little jetty! Our final wreck dive with Danny before moving on to Munda was on an intact Hellcat 'Betsy II' in Blackett Strait, lying on a silty and weed covered bottom in just 10M. This US fighter plane was actually discovered by Danny back in



1986, and apparently the pilot Richard Moore was able to make a flaps-down water landing after being shot in a firefight over the Strait...quickly being rescued by a canoe full of friendly Solomon islanders. Considering how many WWII ship and plane wrecks litter the South Pacific I am amazed that researchers have managed to find out the stories of many of these wrecks – right down to the names of individual pilots and crew.

MUNDA

My last stop in the Solomons was the small village of Munda, which lies on the edge of beautiful Roviana lagoon in the Western Province of the Solomons, - a huge body of water dotted with small islands that offer some spectacular diving!

I arrived into Munda by boat from Gizo, and after settling into the comfortable Agnes Gateway hotel, wandered across to meet Belinda Botha – owner of Dive Munda.

Dive Munda has won numerous awards



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for dive tourism and is highly regarded around the world, - no surprise when you meet Belinda, who has a passion and enthusiasm for diving that is inspiring! Not only is she regularly exploring and adding new dive sites she is also committed to helping the local community develop and grow in a sustainable way by training and employing local dive guides, encouraging local eco-tourism ventures, sponsoring annual fish counts and promoting sustainable fishing practices. For me the main attraction of Munda is the beautiful reef and wall diving, but there are also some very good wrecks dives to be had around Munda too. My two favourites were the WWII Airacobra - an American P-39 fighter plane, and the Douglas SBD-4 Dauntless dive bomber, both close to Munda in easily diveable depths.

The Bell P-39 Airacobra

The Airacobra is largely intact and sits upright on a flat sandy bottom in 27M. Drifting down on it from above gives you

a great perspective... as you get close what at first looked like a drab outline is revealed as a beautiful colonised in colourful corals and encrusting invertebrates, and home to some interesting fish life.

The Bell P-39 Airacobra was one of the main American fighter aircraft when the United States entered World War II, and had an innovative layout with the engine behind the pilot in the centre of the fuselage.


The Douglas SBD Dauntless

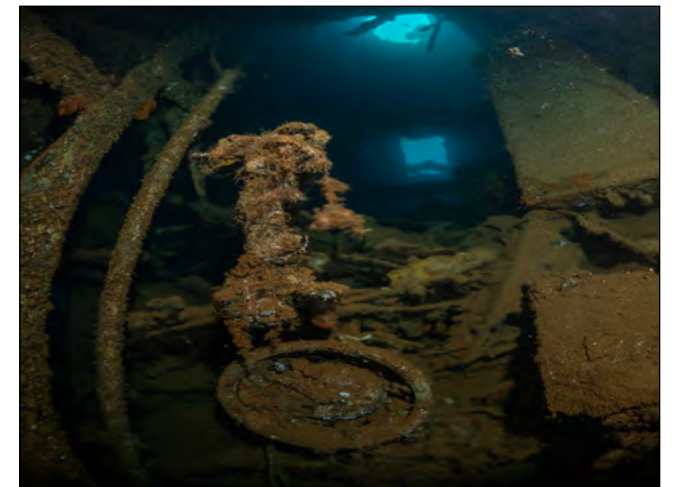
This plane is also sitting on a sandy bottom but in shallower water at only 13M. Like the Airacobra it is covered in colourful hard and soft corals and teeming with fish life, it's propellers curved backward from the impact but not snapped off as you would expect. The Douglas SBD Dauntless was a World War II American scout plane and dive bomber, and was the main carrier-borne US Navy dive bomber from 1940 through to 1944. This particular wreck has an interesting history, as the American

pilot who was flying the plane when it was shot down came back to dive on it as an old man, and even stranger, the Japanese ex-soldier who claimed to have shot down the plane during the war also came to the Solomons to dive on the plane wreck!

On my final day in Munda I paid a visit to the Peter Joseph WWII museum, a must visit for anyone interested in WWII history. I loved the authenticity of this hands-on 'museum'; - it is run by an old guy with a passion for WWII history and he has personally collected most of the relics himself from the jungle around Munda. Each piece had a personal history, and it is easy to conjure up images of the young American and Japanese soldiers who held these weapons battling the appalling heat and humidity of the Solomon Island jungle. I was sorry to leave Munda when my trip finally came to an end; I had experienced some spectacular diving, made lasting friendships, had a taste of

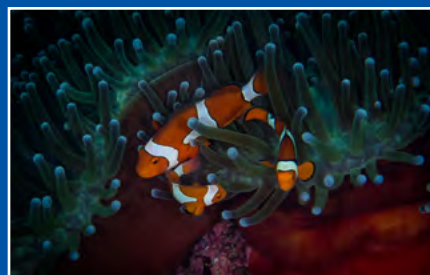
the Solomons rich and vibrant culture, and been entranced by its beautiful scenery. I was going to miss the Solomons spectacular golden sunsets, friendly locals, delicious local food and amazing marine life.

If you haven't been already, make sure not to miss the beautiful, wild and exciting dive destination that is the Solomon Islands, I know I will be back! 



Tom Hughes

A journey through the Lens



Through the Lens

Photographer

I started diving in Byron Bay in late 1982 and fell in love with it. Working part time with a dive shop in Melbourne I became a FAUI Instructor in 1986.

Photography also became a big part of my diving back then and I started shooting with a Nikonos IV with a single Sea and Sea strobe. I was an apprentice Aircraft Engineer back then and used to make all my own trays, arms and accessories as they were difficult to source and expensive!

Life and an aircraft engineering career took over in the nineties and early 2000's when I would only do the odd dive whilst on holiday with the family.

In 2015 circumstances changed and I was able to throw myself back in to diving. I

renewed my instructor certification, this time with PADI and tentatively took up photography again with a gopro and a light or two.

Digital photography was new to me but once I got the hang of it, I realised it had so many pluses over the old film days. So off I went.

A compact (various Sony RX100s) came first then into DSLRs with a Nikon D500 and now a Nikon D850.

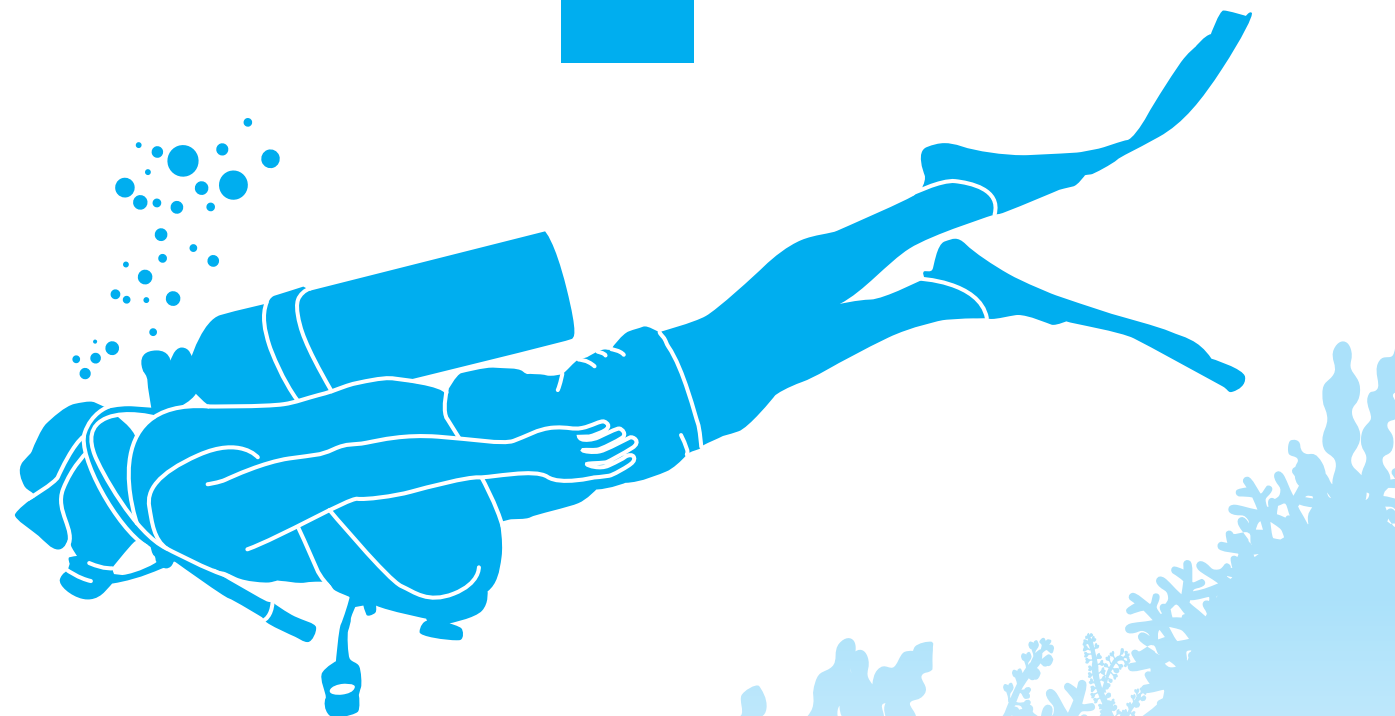
I now live back in the Byron Bay area. In early retirement I work at Sundive as Service Technician and Instructor spending all my spare time out at Julian Rocks with my camera and travelling (for diving of course) as much as I can.

Life is good.....



Kona, Hawaii – Manta Ballet – Manta night dive Camera: Nikon D850, Lens: Nikon 8.0-15.0 mm, Housing: Nauticam, Lights: Inon Z240 x 2 F6.3, 1/125, ISO400

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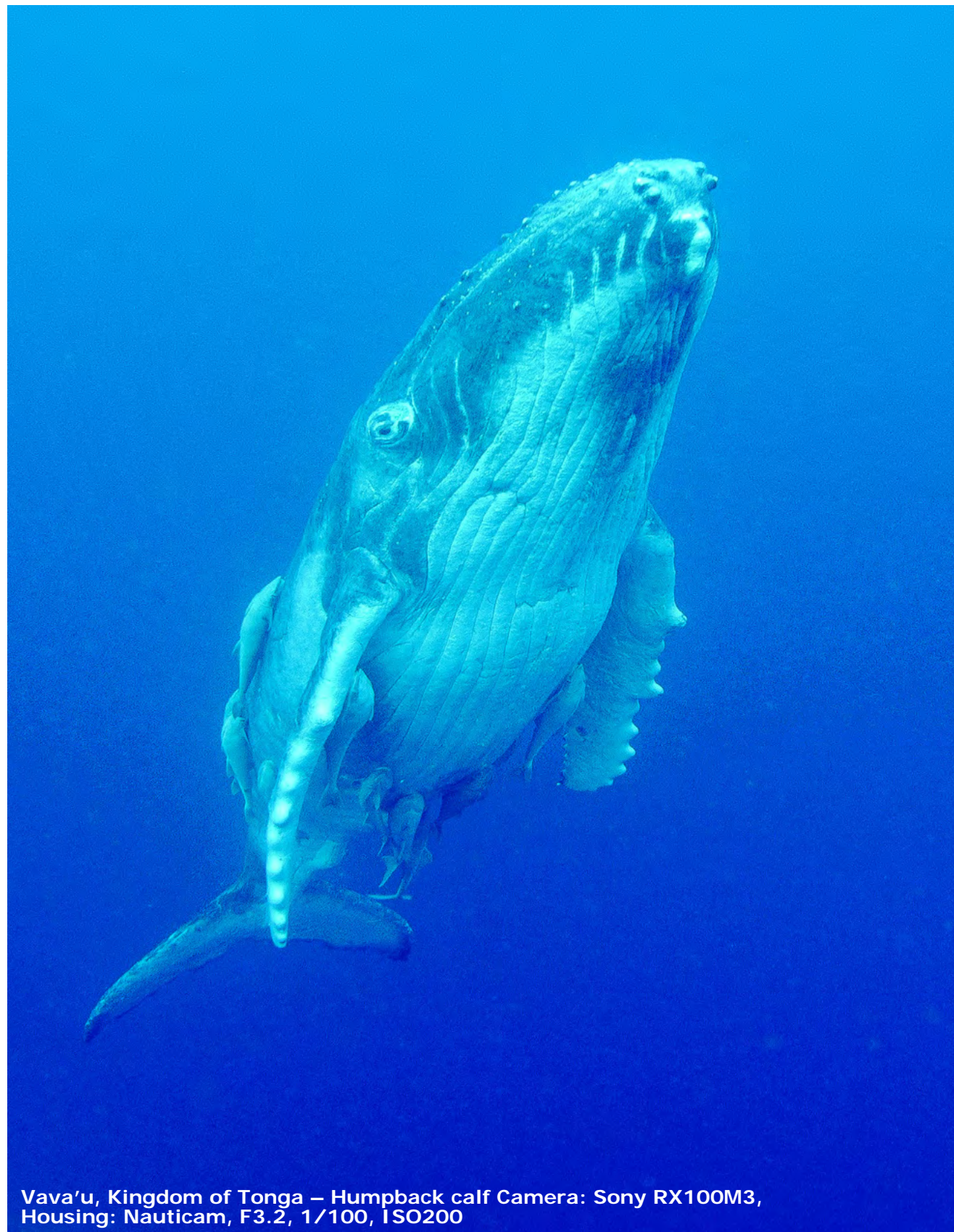


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Vava'u, Kingdom of Tonga – Humpback calf Camera: Sony RX100M3, Housing: Nauticam, F3.2, 1/100, ISO200



Julian Rocks, Byron Bay – Leopard Shark Season. Camera: Nikon D500, Lens: Tokina 10-17mm, Housing: Nauticam, Lights: Inon Z240 x 2 F11, 1/125, ISO200



Munda, Solomon Islands – MV Taka liveboard – Cuttle show Camera: Nikon D500, Lens: Tokina 10-17mm, Housing: Nauticam, Lights: Inon Z240 x 2 F8, 1/125, ISO200



Port St. Johns, South Africa – Dolphins feeding – Sardine Run Camera: Nikon D850, Lens: Nikon 8.0-15.0 mm, Housing: Nauticam, F25, 1/500, ISO640



Lennox Head, Bream Hole – Snell's Blue Bottle Ouch! Camera: Nikon D850, Lens: Nikon 8.0-15.0 mm, Housing: Nauticam, F14, 1/160, ISO200

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Kona, Hawaii – Manta Flyby Camera: Nikon D850, Lens: Nikon 8.0-15.0 mm, Housing: Nauticam, F5.6, 1/125, ISO200



Port St. Johns, South Africa – Spinner Shark Feeding, Sardine Run Camera: Nikon D850, Lens: Nikon 8.0-15.0 mm, Housing: Nauticam, F11, 1/500, ISO800



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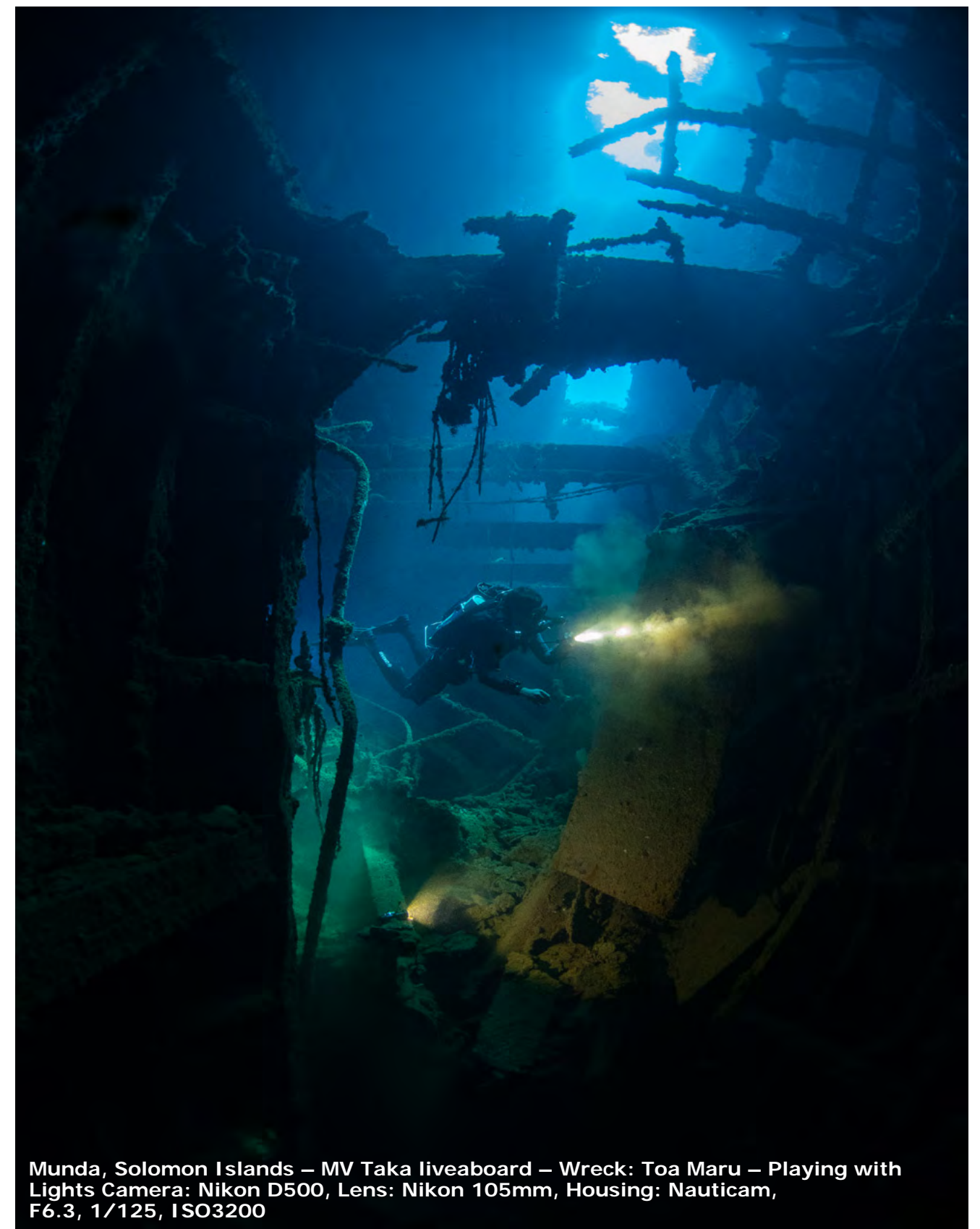
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South West Rocks – Too many Grey Nurses – Never!!! Camera: Nikon D850, Lens: Nikon 8.0-15.0 mm, Housing: Nauticam, Lights: Inon Z330 x 2 F5.6, 1/125, ISO200



South West Rocks – Wobbegong flyby Camera: Nikon D850, Lens: Nikon 8.0-15.0 mm, Housing: Nauticam, Lights: Inon Z330 x 2 F8, 1/125, ISO200



Munda, Solomon Islands – MV Taka liveaboard – Wreck: Toa Maru – Playing with Lights Camera: Nikon D500, Lens: Nikon 105mm, Housing: Nauticam, F6.3, 1/125, ISO3200

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Little Leviathans



The tropical sun was overhead, we were at the outer Barrier Reef, and we felt the ever-so gentle rocking of the boat beneath our feet. Yet oddly, we were in the right place at the right time for a large marine mammal encounter.

Now we just had to find some 'small whales'. Or more accurately they had to find us – it was a lovely feeling to be told that the whales would actively come looking for us. And they did. 'Minke whales off the stern!'

Two long lines were let out at the stern – 'mermaid lines' they were called, and we were reminded yet again that we must never let go of the line. One more snorkel briefing, the key points as a last-minute reminder at the timely moment an almost giddy excitement was taking us over.

Then it was time for masks, snorkels and fins - no weight belts – and finally cameras, and we slid into the water as gently as possible.

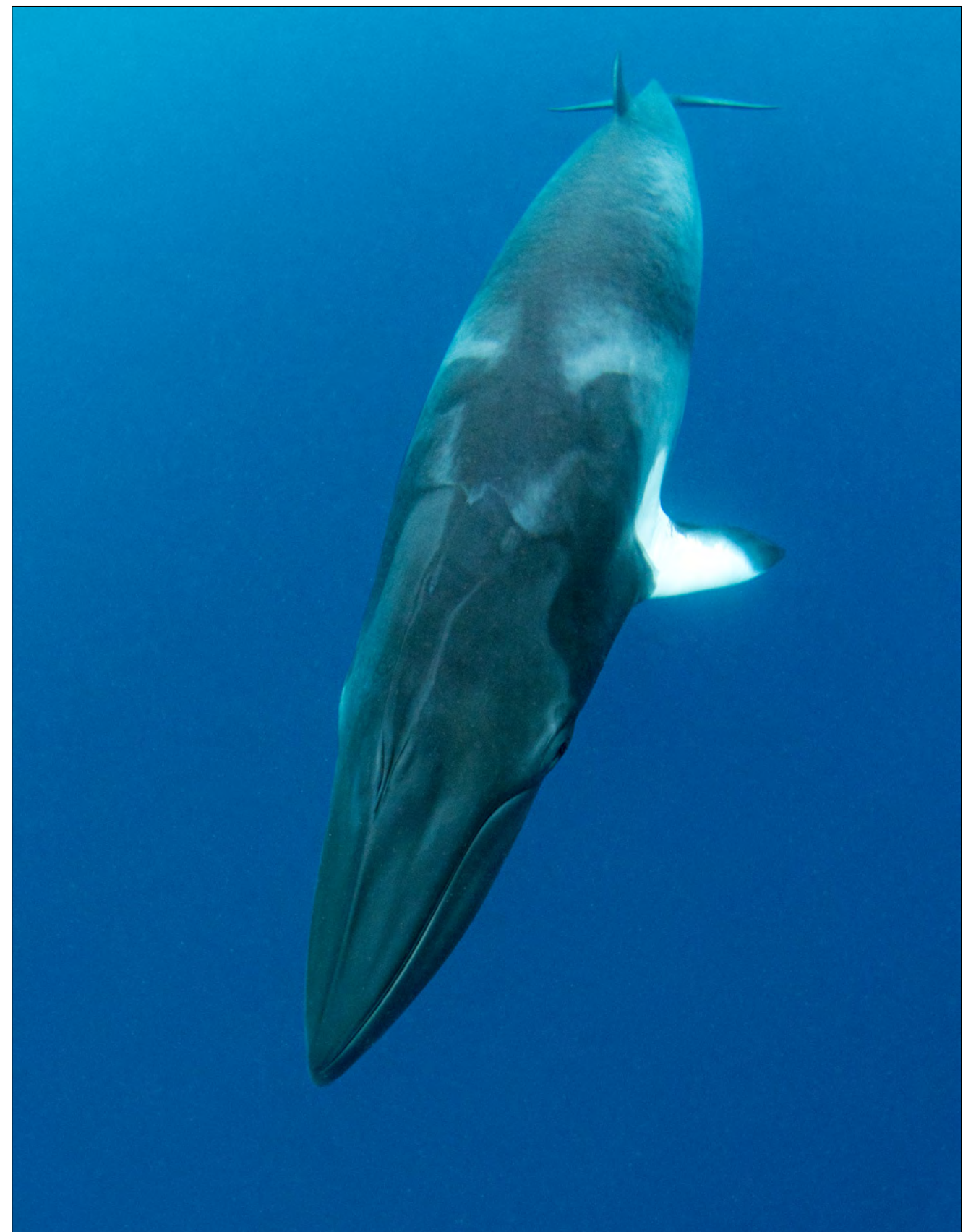
The sound enveloped us first. Visibility was good, but the noises penetrated far further through the water than light. I'd heard about these noises, and indeed I had the

sensation of being in the cinema for a Star Wars battle scene – laser blast and lightsabre noises, loud enough that I could feel as well as hear the vibrations.

When they were first recorded there was speculation that some of the clicks, buzzes and other high-frequency noises made by Dwarf Minkes may be akin to dolphins' echolocation, but they lack the specific structures that give dolphins and other toothed whales their remarkable sonar ability.

Still, like seals, and maybe like the larger whales, these animals clearly use sound – by far the best means of passing and receiving information at any distance through water – in sophisticated ways we don't properly understand.

They certainly use it to keep in touch with each other and to



Giant Stride

Minke Whales

pass information, but also to find specific bodies of water, underwater topography and probably even to find prey aggregations. Antarctic Minkes, and the three populations of Common Minkes from the North Atlantic, North Pacific and these Southern Hemisphere Dwarfs all have rather different electronic-sounding buzzes, beats and boings.

Then the first shape materialised, a sharp-pointed, giant spindle pushing through from the edge of visibility.

The Dwarf Minke is the smallest of the great whales, but the next thing that struck me (in the metaphorical sense only, fortunately) was that this was a bloody enormous animal heading straight towards me.

The fins and the backs we had glimpsed above the surface just looked like big dolphins, but underwater this was immense.

Weighing over five tonnes, over seven metres in length, and not at all hesitant about coming in very close indeed, 'dwarf' seemed a misnomer from where I lay floating.

I became aware that I was holding a breath and a wide-eyed smile – and let it out.

There are two species of Minke whales (although one of the two might in fact itself be three different species): the Common Minke, *Balaenoptera acutorostrata*, found in both hemispheres, and the slightly larger Antarctic Minke, *Balaenoptera bonarensis*, found, as its name suggests mostly in the pack ice around Antarctica, where at least a proportion of the population stays year-round.

The Dwarf Minke is the Southern Hemisphere subspecies of the Common Minke, and as its name suggests is a little smaller than its cousins found in



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Minke Whales

the North Atlantic or the North Pacific. In the southern summer, from October to March, Dwarf Minkes head south, like almost all Southern Hemisphere whales, to feed on the rich krill grounds around the Subantarctic, and some all the way down into Antarctic waters.

Even in Antarctica at the feeding grounds, the Dwarf Minke seems a little different; more solitary, more curious and interactive with boats than other Minkes.

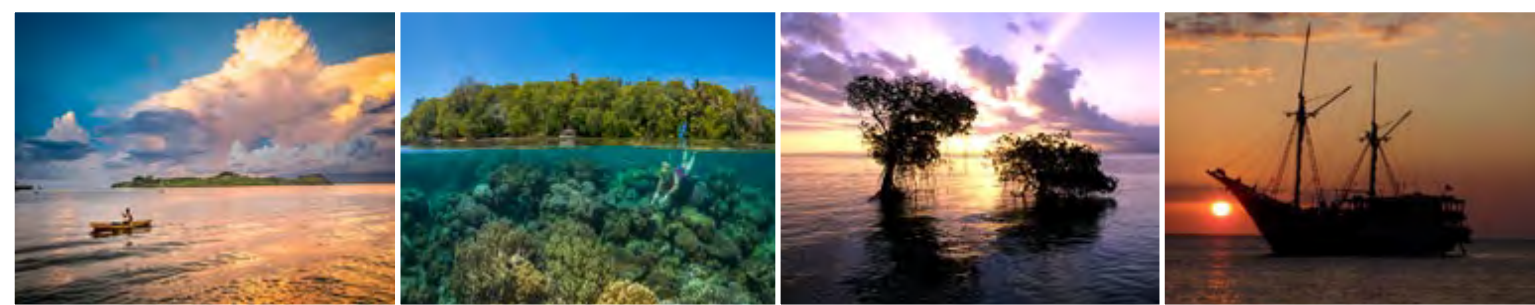
Minkes are by far the most abundant of the baleen whales. A major reason for this is that they were too small and had too little precious whale oil to attract the same attention from the whale hunters as their larger cousins during the decimation of great whale

populations during the first three quarters of the twentieth century.

Largely escaping hunting, and with most of their larger cousins removed from competing with the Minkes for food, the Minke populations have probably increased, and may be greater today than at any time in the past.

The two species together may number over a million animals, the majority of them living most of their lives in cold polar seas.

Despite this abundance, we are not sure how most of these whales spend their 'off-season' – their local winter, when the big food concentrations become less accessible around the polar and subpolar feeding grounds,



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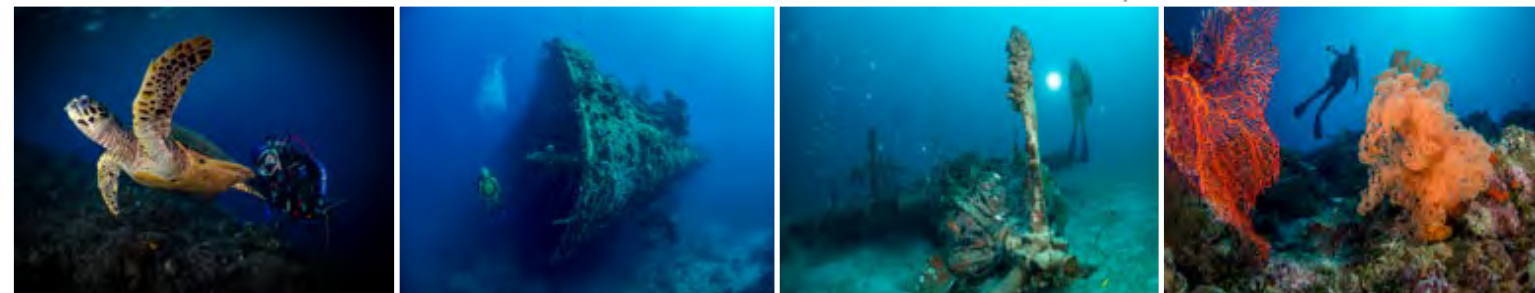
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and when most whale species stop eating and head to the tropics to breed and socialise.

The only widely-known socialising, breeding and nursery aggregation of Minkes is the one we were enjoying off the northern Great Barrier Reef near Lizard Island.

From May to August, but especially in June and July, two hundred or more Dwarf Minkes gather in the area.

Small dolphin-sized calves have been seen in the area in June and July.

Several local operators are licenced to operate snorkelling encounters with them, under strictly specified terms of engagement.

They were big, and they were very curious - surely they must be one of the most friendly of whales, if a whale can be friendly. Another came by, and another. They seemed genuinely interested,


slowly approaching, establishing eye contact at their closest approach as they smoothly slid by.

The large, almost flat eye, lined below by a permanent 'smile wrinkle' found my eyes, then looked into them over his shoulder as the long body glided effortlessly past.

Again and again. The crew said that if I wanted an even closer encounter I should sing to the Minkes - naturally I assumed this was one of those things guides say to their guests for amusement value.

And of course the crew had not heard me sing. But why not? - I gave it my best slightly self-conscious Ed Sheeran.

And the not-so-little whale, still with that amused look in that eye, swam right up to me and past, almost close enough to touch.

Malcolm travelled with Mike Ball Dive Expeditions 





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Tech Diving at Bikini Atoll

The Bikini Atoll is possibly one of the most remote dive sites in the world. To get there one has to fly more than halfway across the world. This is not easy, especially if one has lots of technical diving gear that has to clear customs many times over (many of which looks like suspicious gadgets).

The author and Pieter Venter flew from Johannesburg to Hong Kong, then to Manila (in the Philippines) and finally to Guam, where we met with Leszek (the dive leader), Kris and Balinski from Poland. We also met Mirek, the trip coordinator, from the USA. From Guam, the entire diving team flew to Truk and then to Pohnpei, followed by Korsae, and finally to Kwajalein, a US



military base. We had been flying for two and a half days, with some short layovers in between.

Our traveling was, however, not yet over. It was time for a sea voyage aboard the Windward. This ship took us from Kwajalein to the Bikini Atoll, a distance of 215 nautical miles. It took approximately one and a half days, but it can take longer depending on the sea conditions. Some of the divers suffered from sea sickness, so it felt very long at times.

Finally, we arrived at the Bikini Atoll. There was not much to see on the surface, but the reason why we were there lay underwater. Shipwrecks. Lots of them – ten in total. After the Second World War, in December of 1945, President Harry S. Truman issued a directive to the army and navy officials that testing of nuclear weapons would be necessary to determine the effect of atomic bombs on Japanese and American warships. The Bikini Atoll, because of its location away from regular air and sea routes, was



chosen to be the best nuclear testing ground for the United States government. The two atomic bomb blasts, the Able and Baker detonations, were both about the size of the atomic bomb dropped on Nagasaki, Japan.

The experiment had been successful, and we were about to discover what the effect on the war ships had been. The sea was clear and warm in the calm waters of the Bikini Atoll.


We did eight days of non-stop diving, two dives per day per diver. The dives to the wrecks located at an average depth of 54m were mostly done on trimix. There was not much to do on the boat so we spent about 4-5 hours underwater each a day. No one was complaining.

We managed to dive the three most important wrecks; the wreck of the USS Saratoga, the wreck of the imperial flagship of the Japanese Navy, The Nagato, and the

wreck of the submarine USS Apogon. We also dived the wrecks of many war planes.

The size of the wrecks was impressive. It is very easy to get lost inside and even outside of these immense wrecks, some of which are in excess of 300m long. Wreck diving and deep diving experiences are a must, and scooters are very useful indeed.

Living aboard the Windward, a fully equipped commercial diving boat with a re-compression chamber (which was tested, but not used) and oxygen generator, was comfortable. The food and wine (in moderation) were excellent. The crew was very knowledgeable and always ready to help.

Going back in history made this diving expedition a memorable and unique experience. It was a once in a lifetime experience and the wrecks were amazing with lots to see, both inside and outside. 

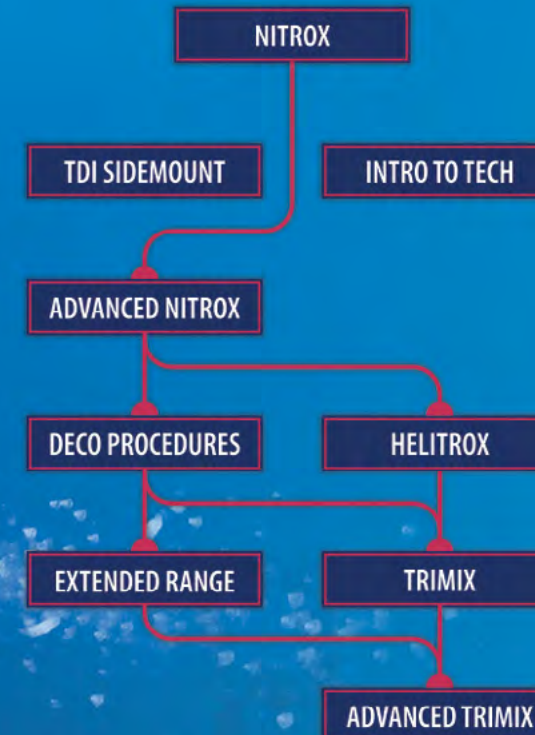




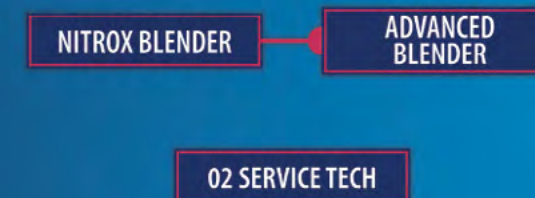
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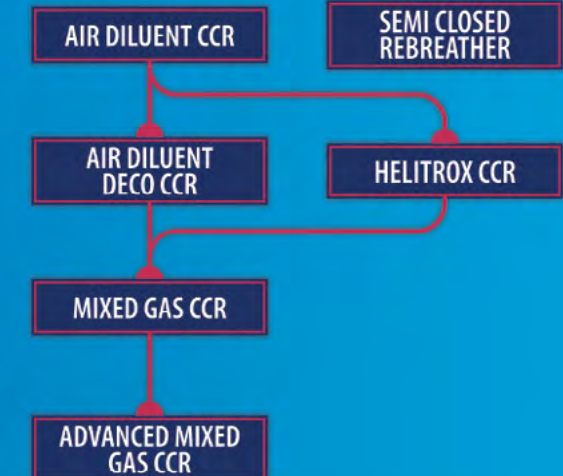
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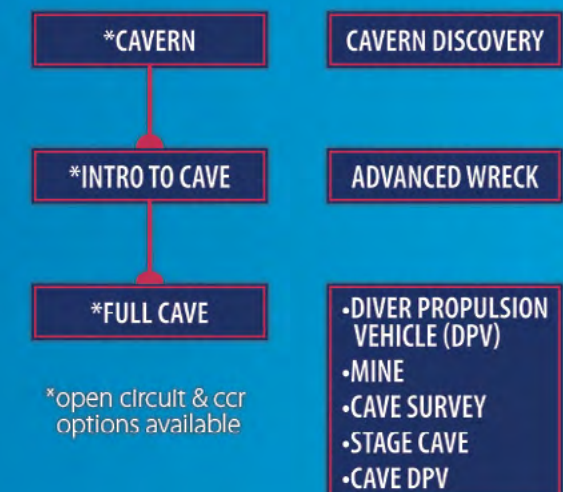
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Diving on air, the risk of nitrogen narcosis increases exponentially after 30m and how do you minimise its effects at depths deeper than that?

Q & A

Nuno Gomes




The obvious answer is never to go deeper than 30 m on air. The other possibility is never to exceed an equivalent air depth of 30 m when using Trimix (oxygen, nitrogen and helium). Nitrox usually does not pose a problem, because one cannot go very deep with it due to the high partial pressure

of oxygen. The diminished percentages of nitrogen will usually not pose a problem. Now, what most divers really want to know is how to reduce nitrogen narcosis when diving on air in the depth range 30 - 50 m. The basics are:

- Get acclimatized to the venue progressively over a few trips, and do not go deeper until you are comfortable at a certain depth. An important thing to remember is that this acclimatization does not last long (usually only one week), so if you return after a month you start the acclimatization from scratch.
- Use small depth increments of 5 m or less.
- Do not use any new equipment for the first time when increasing the depth.
- Your breathing rhythm is important – a deep

breath in and a full exaltation. There is no need to retain the residual carbon dioxide in the lungs, as it worsens nitrogen narcosis.

- Nitrogen narcosis is always less when the visibility is good and the water is warm.
- Nitrogen narcosis is usually much worse in caves, even if the visibility is good and the water is warm, because of the darkness. 


Barry Coleman



Narcosis can lead to life-threatening conditions by impairing the diver's judgement. It is a problem that affects diver behaviour at increased partial pressure of nitrogen in the gas that the diver breathes at depth. Studies have demonstrated narcosis effects in comparative shallow

depths of less than 30 msw. Different divers have different responses to nitrogen at depth, depending on contributing factors such as dehydration levels, lack of adequate sleep and various so-called "not to worry about" issues. The causes of narcosis are varied and complex

and they deserve respect. So, how do we prevent this or control it? For many years it was (and possibly still is) thought that with frequent deep dives over many days, or even years, one could acclimatize. This has been proven wrong, not only in experiments, but also out in the field by both commercial and recreational divers. The only thing that was happening was that the diver was becoming accustomed to the feeling of narcosis, but the effects, with regard to decreased performance as depth increased, remained.

The alternative would be to start using mixed gasses. At present, the use of helium as a non-narcotic gas is the best answer. A diver may now balance the degree of narcosis with the cost of the mix in preparing for a dive. By cost I refer to both the monetary value and the decompression obligation that may be incurred. Helium is not a cheap gas and under water the non-decompression allowable dive time is less than that of a standard air table. Unfortunately, divers look at these two factors to the detriment of the safety of a dive. Using helium, together with progressively small increased depths over a long period of time, is the safest way of exploring the depths. 

Pieter Smith




Divers commonly say that they have developed a tolerance for nitrogen narcosis (narcs) over years of deep diving, or from regular diving, but this is not true. Divers can neither develop a tolerance to narcs, nor can they reduce its effects. They can only adapt to the condition. In essence, this

means that you can change or influence your behaviour when experiencing narcs. Is it not the same thing? No. It is important to understand the difference between tolerance and adapting. Once a diver understands this concept, it becomes possible to effectively manage narcs as an integral part of diving beyond 30 msw (based on using air). So, how or what can I do to enhance my behaviour when experiencing narcs?

1. Plan well ahead: Eat well and get enough rest in the weeks prior to your diving trip. Your physical condition has a direct impact on your behaviour when experiencing narcs.
2. Prepare thoroughly for dive conditions such

as weather, water temperatures and visibility. Also plan your dives as far as depth, the group, buddy pairs, light sources and so forth are concerned. Knowledge lies in direct relation to your ability to control!


3. Regular diving: I dive every second weekend, ensuring that I keep a high level of dive fitness, confidence and competence (knowledge, skills and behaviour).
4. Personal depth: Ensure you are confident to dive to the planned depth and that it is not beyond your personal limits.
5. Dive planning: Build up to a deep dive. Do the deep dive last on your dive trip so that you can adapt to diving conditions.
6. Lastly, if you are experiencing the effects of narcs, acknowledge it, accept it, manage it (call the dive if it is too much for your personal ability) and know that only you can influence your own behaviour.

Narcs can also be reduced by gas mixing – decreasing the partial pressure of nitrogen within the gas that is used. Every diver experiences narcs (the depth may differ) and its effects on a diver's ability to operate (anaesthesia, impaired reaction etcetera). The difference is: how do you behave when narced? That is where your focus should be. 

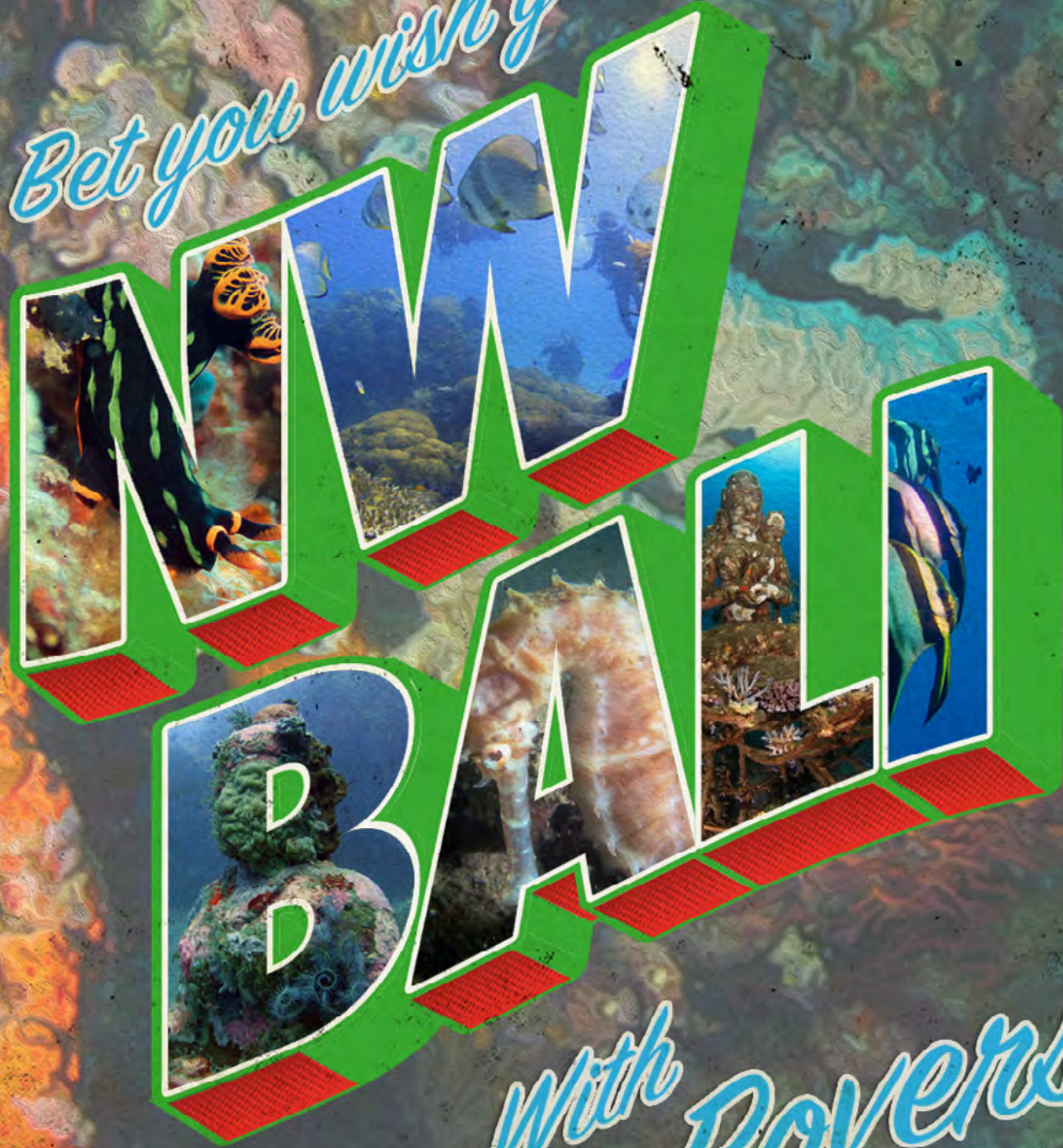
Pieter Venter



Nitrogen narcosis is an unavoidable physical effect on the human body if your Equivalent Narcotic Depth (END) is more than 30 m. The perceived effects of narcosis are compounded by human factors such as stress, unfamiliarity, bad breathing technique (CO₂), workload (CO₂),

dehydration (hangover), low blood sugar (low energy levels), cold etcetera. A warm-water 50-m dive in 50 m visibility is hardly perceived the same as a 50-m dive in cold, murky and rough water. Add to this dehydration, hard work and not feeling energetic before the dive, and you are courting disaster. To lessen the perceived effects of narcosis for end dives of more than 30 m, do incremental build-up dives under the same conditions and workload as the intended deep dive. Also practice good breathing techniques to lessen CO₂ build-up, hydrate, sleep well and avoid hangovers. Be relaxed, prepared and energised for the dive. 

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Instructor Diaries

The worth of a rescue diver

Personally I encourage all my students to get to at least a rescue diver level. Why would you think it's important to become a rescue diver in the first place if diving is really all you want to do? The rescue diver course itself is an interactive course all the way from the classroom sessions to the practical dives.

The organisation I dive with has structured the course in such a way that the student's knowledge and ability is greatly enhanced, making the rescue diver an asset on any dive. In addition to enhancing confidence and skill, the best thing about rescue divers is the augmented awareness. They seem to 'look' differently at the dive and the underwater world, translating into them being safer divers and directly minimising risk on the dive by being able to look after themselves.


Rescue divers should be responsible and assist with fellow divers when they are in need, not only in emergency situations, but also before dives when some people may succumb to stress.

Remember that the dive master is focusing on the dive and all the logistics around it, not only ensuring safety, but fun as well. If you as a rescue diver can subtly assist where required you will be seen as someone to rely on during the dive, enhancing safety and ensuring that the dive is enjoyable for all.

A critique I do have on rescue divers

is that after a while they seem to lose the confidence to help or assist when an emergency does arise. This is not due to a lack of training, but rather a lack of practice in my mind. Being a rescue diver means that you can deliver a service, and being able to deliver top quality service means that you have to be good at it and the only way to get good at it is to do it often.

To this point I encourage all current rescue divers to join your instructor when he or she is presenting the next rescue course. Go play patient, take in the student's reactions to situations and listen to your instructor's comments – I am sure that you will increase your knowledge and up your skill level. Although the focus is on rescue divers, the above point actually applies to dive masters too. I have come across a few dive masters who are absolutely clueless when it comes to safety and the skills around basic emergency procedures and tactics.

To end off, I hope to see more quality rescue divers on my future dives having trust in their own ability and knowing their limitations. 



A basic Overview of Rebreathers

PART I

Rebreathers are more gas efficient than open circuit systems. Generally the gas breathed is the optimum or best mix (mixture of nitrogen and oxygen) and warmer to breathe, which provides longer bottom times/dive time. They are not as noisy as open circuit (blowing lots of bubbles!).

Although we say rebreather, it is a generalisation covering a range of equipment that has two common similarities: the exhaled gas is re-circulated within a breathing loop and the carbon dioxide is removed by an absorbent.

The closed circuit rebreather will attempt to provide the best nitrox/ean for the depth. Normal air open circuit scuba is not the best mix of gas for scuba because the fraction of oxygen is only 21%.

This fraction does not change; the partial pressure of oxygen (PpO₂) will change according to the depth. The 'best mix' in recreational diving generally has a higher

PpO₂, from a tissue loading and non decompression perspective.

The best mix would be able to keep the PpO₂ fixed and adjust the fraction of oxygen according to depth. The rebreather has a controller with a 'Set Point' which can control the PpO₂.

The Set Point is a predetermined figure calculated on what the oxygen partial pressure should be at a given depth.

The oxygen controller attempts to maintain the partial pressure of oxygen (PpO₂) in the breathing loop to match within say 0.02 bar of the Set Point. Therefore the fraction of oxygen within the loop will change to maintain the

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same PpO_2 and the Set Point. The amount of oxygen in the breathing loop is supplied via the solenoid in an electronic controlled system or via a manually operated valve.

The solenoid is an electronic valve which allows a small amount of oxygen gas to be added when activated by the electronic controller.

Oxygen sensors, if fitted within the breathing loop, will provide information (with the help of electronics) on the partial pressure of oxygen (PpO_2) via a visual display.

The oxygen sensors work on a chemical process converted into an electrical current which in turn is interpreted by a computer which may then control the solenoid and flow of oxygen or the diver is required to manually add oxygen to the loop.

In some more advanced electronic systems a dive computer is integrated and calculates the NDL and other limits. There are a wide range of rebreather designs and we will briefly look at some of them:

Oxygen rebreathers

These are mainly used by the military. They are limited on the depth they can be dived, because they use pure oxygen in the breathing loop, and as you may have already learnt, 100% oxygen becomes toxic below 6m/20 feet.

They are small and not common at all in recreational diving. These units do not have oxygen sensors.

Semi Closed rebreathers

Semi Closed Rebreathers use a constant flow of premixed gas through a control orifice into the breathing loop.

The excess gas not used is vented from the loop. Hence the term 'semi closed'. The size or diameter of the orifice must match the depth range where the diver will be using the unit.


Too small and the volume of supplied gas will not be enough and too large and the

volume will be excessive and waste gas.

There are two types of Semi Closed rebreathers; Passive and Active. The Passive system will deliver gas into the breathing loop when triggered or activated due to the reduction of loop volume.

As the breathing loop volume reduces from the diver's metabolism, the reduction activates a valve which opens and adds a pre-mixed gas to the breathing loop.

This system generally reduces the amount of excess gas the unit vents. The Active system delivers a constant flow of gas into the breathing loop and has a higher amount of gas volume venting.

These units may have oxygen sensors, but they are not required, as the PpO_2 can be calculated and estimation figures based on depth, workload and metabolic rate projected for decompression purposes. 



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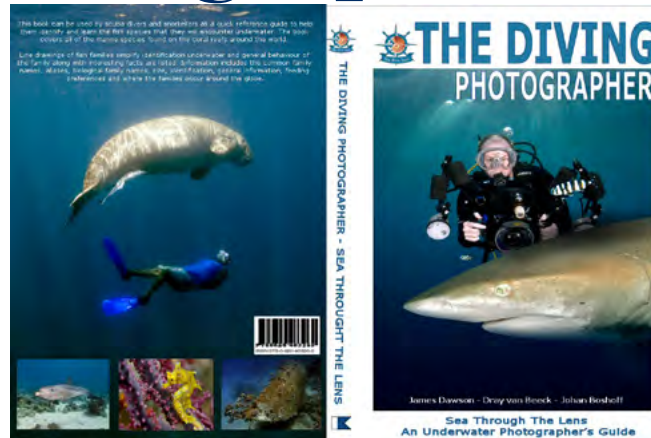
The Diving Photographer –

As scuba divers, we are not always the best photographers, but we do learn very quickly. And if we have a handy guide book, the time spent with our cameras underwater will increase rapidly.

This easy-to-use guide book for the diving photographer can be used by all levels of photographers. It helps you with choosing the right type of camera for your ability – although with all the information presented you will learn so quickly that you will have to buy a better camera after working through the book! Preparing and setting up your equipment becomes a breeze with easy pointers on how to check and replace o-rings, quick tips on keeping your housing dry and other small things we usually forget to check.

The technical advice on how to perform manual camera settings, lighting techniques and editing the not-so-perfect shot was a great help. One of the main things I took from this book was learning to back up my photographs and then trying anything and everything with them in the photo editing programmes until it looks like the professionally taken shot that you have been aiming for the whole time. Some other topics covered are strobe positioning, ambient light, photographing wrecks, long exposures and equipment maintenance.

I must say that this book has proved to be a great help in improving my photographing and editing techniques. Photographer is available in all good scuba diving and book shops or online at www.ozdiver.com.au. Cost: \$19



Marine Species Guide –

Yes, it happened...I had to buy a larger bookshelf. The latest book from The Dive Spot has landed on our shores – The Marine Species Guide.

A book for both scuba divers and snorkelers to identify and learn all about the different fish species they will come across under water. The book covers most of the marine species found within coral reefs around the world. Line drawings of fish families simplifies identification underwater, while general behavior of the family along with other interesting facts are listed.

Information include common family names, aliases, biological family names, size, identification, general information, feeding preferences and where the families occur around the globe. Photographs of the most common of the species found when scuba diving or snorkeling are included and the fish families are organised for easy reference.

The book works very well in accompaniment with the Marine Species Slate, which can be taken underwater to help with fish identification.

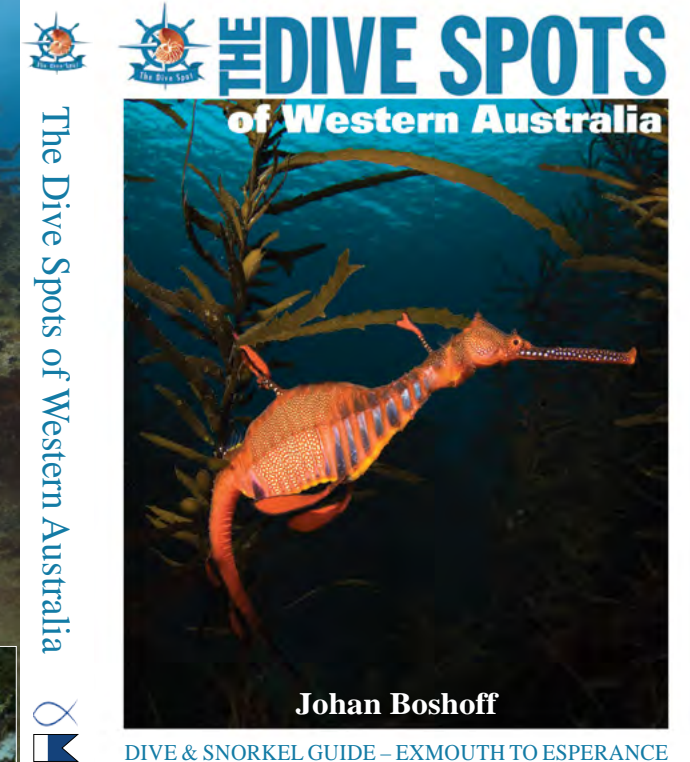
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The Dive Spots of Western Australia



The Dive Spots of Western Australia is an indispensable guide for all levels of divers and snorkelers, broadening their horizons on places to visit and dive/snorkel in Western Australia. Through extensive travel and diving, Johan Boshoff brings you valuable information on more than 175 dive spots in Western Australia. Important guidelines on each coastal dive destination include accommodation, facilities, travelling tips and dive conditions. Complete with photographs and more than 100 illustrated maps of each dive site, all reefs are star rated to cover depths, marine life and other essential information for the diving and snorkeling community.



The Dive Spots of Western Australia is an indispensable guide for all levels of divers and snorkelers, broadening their horizons on places to visit and dive/snorkel in Western Australia.

The book has more than 175 dive spots in Western Australia. Important guidelines on each coastal dive destination include accommodation, facilities, travelling tips and dive conditions. Complete with photographs and more than 100 illustrated maps of each dive site, all reefs are star rated to cover depths, marine life and other essential information for the diving and snorkelling community.

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Contents	
GENERAL	
How to use this book	4
Map of Australia	7
About Australia	8
Map of Western Australia	15
About Western Australia	16
Leeuwin Current	24
Top Wrecks of Western Australia	229
Fish Characteristics	246
Marine Species Index	247
Life Cycles	256
Environment	258
Dive Safety	260
About the Author	268
Index of Dive Spots	270
Acknowledgments	272
CORAL REGION	
Information on the Coral Region	30
Perth & Surroundings	34
Shark Bay	52
Kalbarri	62
Abrolhos Islands	72
Albion Bay	76
Albion Bay	82
Albion Bay	92
Albion Bay	102
PERTH REGION	
Information on the Perth Region	101
Perth & Surroundings	108
Northern Perth	112
Mindarie & Surroundings	120
Marmion Marine Park	132
Northern Perth Metro	138
Rottnest Island	142
Rottnest Island	148
SOUTHWEST REGION	
Information on the South West Region	177
Bunbury & Surroundings	180
Busselton & Surroundings	186
Albion Bay	196
Bremer Bay & Surroundings	206
GOLDEN OUTBACK REGION	
Information on the Golden Outback Region	215
Esperance & Surroundings	218

The Rottnest Island Fish Book

Dr Glen Whisson
Alexandra Hoschke
Aqua Research & Monitoring Services

Many visitors to Rottnest Island are fascinated by the amazing marine environment. The beaches, the swimming, the reefs and fish life are an integral part of the Rottnest Experience. Even the Aboriginal name 'Wadjemup' refers to Rottnest as being the 'Place across the water'.

The Rottnest Island Fish Book, originally published in August 2017, is the result of many years hard work by authors Dr Glen Whisson and Alexandra Hoschke. The first printing sold out in just 18 months, which is not surprising given the wonderful presentation and incredible photographs of the hundreds of fish species found around Rottnest Island. In 2019 the authors produced an updated version that includes several additional species and updated photographs. Containing over 420 colour images, The Rottnest Island Fish Book is the most comprehensive fish guide ever produced for Rottnest Island - one of Western Australia's most popular destinations.

This publication is an essential resource for visitors who wish to engage with the stunning marine environment through snorkelling, fishing or diving. It contains fishing advice and cooking tips for over 20 commonly caught species, snorkelling maps of several beautiful bays, feature articles about Rottnest's unique marine life, and an identification section describing the key features of all the fish species likely to be encountered around Rottnest Island.

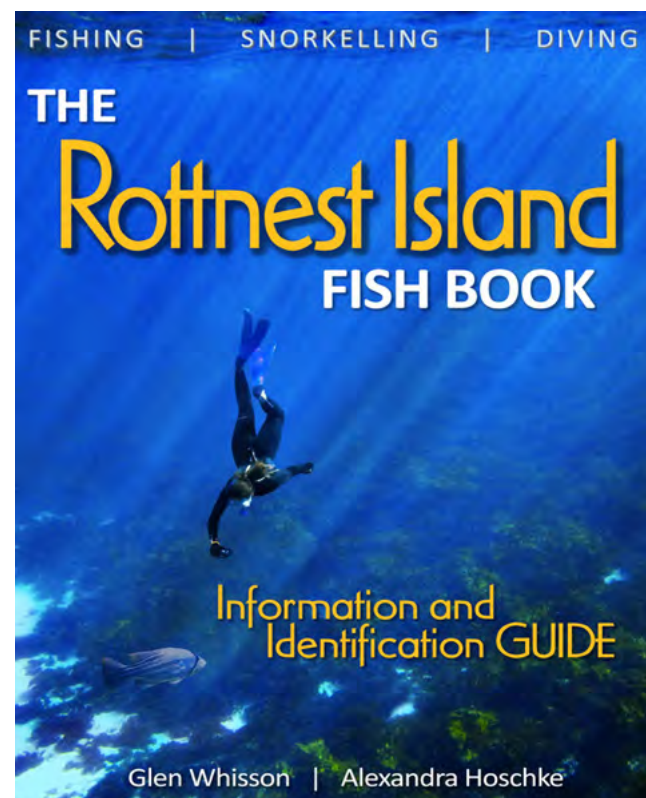
Feature articles include interesting insights into Grey Nurse Sharks; ocean temperatures; marine habitats like coral, seagrass, etc; herring life cycle; tropical fish species; and even the fascinating subject of sex change in fish!

The beautifully-presented book is 176 pages long and contains colour photographs of over 250 fish species seen around Rottnest Island. It would be an ideal publication for the general public interested in beginner/intermediate level fishing/snorkeling/diving; advanced marine enthusiasts wanting a comprehensive photographic identification guide; or anyone generally interested in the WA marine environment. Many featured species are also found on the Perth Coast, so local divers and fishers will also find this book an ideal addition to their library.

ABOUT THE AUTHORS:

Dr Glen Whisson and Alex Hoschke have spent many years conducting marine research at Rottnest following extensive academic careers at Curtin University in the aquatic sciences. Their other research includes internationally published studies on Grey Nurse Sharks, ocean temperatures at Rottnest and Exmouth, and marine biodiversity monitoring programmes around WA.

To buy your copy for \$ 25, visit www.ozdiver.com.au or email info@ozdiver.com.au 



The PowerRay and The PowerVision

Ever wondered what is happening under the water. Now it is possible without scuba gear using the new PowerRay. An underwater drone that allows you to go and explore the ocean secrets and to top it off, you can add the PowerVision so your underwater drone becomes a fish finder with so much more possibilities.

The PowerRay is not just an amazing good looking toy but for fishermen, videographers, photographers and underwater enthusiast a great device to use to explore the surrounding waters.

This Underwater ROV can dive down to 30 meters in salt, fresh or even chlorinated water for up to 4 hours. With its amazing lights and camera that is situated in front of the unit the camera can capture 4K footage or 12-megapixel still photographs and stores them all on-board on its internal storage device.

If you are a fisherman, you can add fantastic accessories like the PowerRay Angler package that was specifically designed for fishermen, accessories include Precision Remote Bait Drop which allows you to place the fish bait at a desired position and the PowerSeeker/Fish-finder can dock directly into the PowerRay or be used separately as a standalone device.

This PowerSeeker provides you with detailed information on depth, fish distribution, underwater landscape and temperature. If you love fishing, you should certainly consider these added benefits to the PowerRay.

The PowerRay is really easy to operate with its PowerVision App Interface. PowerVision has included a unique live streaming.

If you have an Android or iOS device you can connect directly to the PowerRay to live stream 1080P video at 30 frames per second by docking your smartphone into the remote controller that allows full range of motion and speed control.

The PowerRay also has an option to use a VR headset to have a first-person perspective of the drone and also impressive, you can connect to multiple goggles/devices simultaneously and switch between basic viewing mode and control mode.

This allows you and multiple friends to all share the same first person viewing experience.

The PowerRay is a great underwater drone with so many features that gives you a spectacular real-time view underwater and allows you to capture just the right shot or fish.

For more information on The PowerRay or The PowerVision's visit: www.powervision.me 



The Dive Spots of NEW SOUTH WALES

The Dive Spots of New South Wales is an indispensable guide for all levels of divers and snorkeler, broadening their horizons on places to visit and dive/snorkel in New South Wales. Through extensive travel and diving, Johan Boshoff and Graham Willis bring you valuable information on more than 250 dive spots in New South Wales. Important guidelines on each coastal dive destination include accommodation, facilities, travelling tips and dive conditions. Complete with photographs and more than 100 illustrated maps of each dive site. All spots are star rated to cover depths, marine life and other essential information for the diving and snorkelling community.

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THE DIVE SPOTS
of New South Wales

Graham Willis • Johan Boshoff

DIVE & SNORKEL GUIDE – TWEED HEADS TO EDEN

Contents		GENERAL	
How to use this book	4	South West Rocks	74
Map of Australia	7	Lord Howe Island	84
About Australia	8	Port Macquarie	92
Map of New South Wales Regions	15	Laurieton	96
About New South Wales	16	CENTRAL COAST	
East Australian Current	24	About the Central Coast	102
Environment	290	Forster & Seal Rocks	106
Travelling Tips	292	Port Stephens / Nelson Bay & Broughton Island	116
About the Authors	294	Swansea	130
Index of Dive Spots	296	Norah Head to Terrigal	140
Acknowledgments	298	SYDNEY & SURROUNDINGS	
NORTH COAST		About Sydney & Surroundings	150
About the North Coast	29	Northern Beaches	
Tweed Heads & Cook Island	34	About the Northern Beaches	156
Byron Bay & Julian Rocks	44	Palm Beach & Surroundings	158
Solitary Islands & Surroundings	56	Narrabeen & Surroundings	151
SOUTH COAST		Manly & Surroundings	163
About the South Coast	210	Sydney Harbour	168
Wollongong to Kiama	214	Southern Beaches	
Jervis Bay & Surroundings	228	About the Southern Beaches	180
Ulladulla	246	South Head to Bondi	183
Batemans Bay	252	Bronte to Little Bay	189
Narooma & Montague Island	260	Botany Bay	196
Bermagui to Tathra	272	Cronulla & Port Hacking	204
Merimbula to Eden	280		

Gear, books, software, apps and scuba diving gadget reviews.

Here is a chance for your diving gear, books, software, apps and gadgets to be reviewed. If you have anything that you would like to share with the OZDiver Magazine and other divers, send an email to Log Book at info@ozdiver.com.au.

OZDIVER

Scubapro Everflex Steamer 7/5mm Wetsuit

As we all know, Scubapro have extremely good scuba diving equipment, and when it was time for me to upgrade my wetsuit there was no other option to go but Scubapro.

By Johan Boshoff

After many years of diving it was time for an upgrade as a standard 5mm wetsuit doesn't work for me anymore, especially when I do long tech dives. The one option was to use my dry suit, but as all dry suit divers know, a dry suit is high maintenance and it gets really hot in the suit before a dive.


There was no way I would be able to dive in a dry suit the whole year round...

So what was my next option? To switch to 7mm, but that's lot of rubber and it makes it very difficult to move around, not to mention the buoyancy issues. Then I heard about the solution; a wetsuit that has a combination of 5mm and 7mm Everflex neoprene and best of all, it was made by Scubapro.

The new Scubapro Everflex Steamer 7/5mm Wetsuit is made of Everflex neoprene (I don't know what that means exactly, but it's a very stretchy neoprene that makes donning and doffing very easy and also offers outstanding thermal protection). It was exactly what I needed, and as I know that the Scubapro designers work tirelessly to improve and restyle their wetsuits and try to expand the features of all their suits, I was confident that it would be what I was looking for. My mind was made up and I knew that I had found my suit for many years to come.

Extra features:

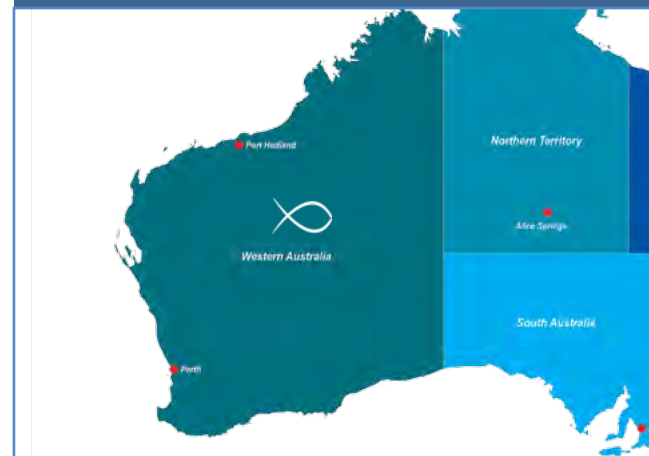
- Equipped with a compression-moulded combination zipper flap/spine pad to reduce water entry and improve back protection.
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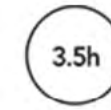


Not only About Drone But Also AI Camera

The PowerEgg X features strong face recognition capabilities. Its face recognition accuracy is continuously improved through deep learning training to follow the object when taking a photo or recording a video. The 3-axis mechanically stable augmentation gimbal can efficiently filter out vibration caused by external sources. A battery life of 3.5 hours in the handheld mode enables you to capture life as it happens!



AI Face
Recognition



3.5h
AI Camera
Mode 3.5h



4K/60fps
UHD Camera



3-axis
Gimbal



www.powervision.me

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CONTENTS

Regulars 3 - Editor's Dico 4 - The Team Letters 7 - Log Book Dive the Continent 9 - OZ News 15 - Port Kennedy to Esperance Weird and Wonders 31 - Manta Ray 33 - Climate changes 35 - Photographers Dive Med 39 - Hyperension Dive the Globe 41 - Global News 47 - Manta Mambo 61 - Ras Mohammad 73 - The Hilton Wreck Explorations 77 - World War II - Part II	COVER PHOTO New Trends www.petermrook.com 	Through the Lens 87 - Photo Competition 91 - Photo School 93 - Editing School Giant Stride 97 - Shape Up 105 - A last glimpse 115 - Micro infiltration Technically Speaking 119 - Dive Planning 123 - Q&A - Backup Instructor Diaries 127 - Log Gear Talk 129 - Kiting Up 135 - Reviews Safety Stop 139 - Funnies Dive Operators 141 - Listings
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Christopher Barlet