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DON SILCOCK DELVES INTO THE CHALLENGES OF SHOOTING THESE COLOURFUL WRECKS

# SCUBA DIVER

**CRESSI SUB – 80TH ANNIVERSARY LINE REVEALED!**

## The realm of PELAGICS

**Richard Aspinall** sets sail aboard the **Cocos Island Aggressor** for an unforgettable dive expedition, exploring the **magic treasure island** of Cocos

+ **Q&A: ANNIE CRAWLEY, PT I** ▸ **NORTH SULAWESI** ▸ **PHILIPPINES**

SCUBA DIVER ISSUE #109
WWW.DIVERNET.COM

# ABOFA

Aqaba Blue Ocean Future in Action

## About the Event

ABOFA – Aqaba Blue: Ocean Future in Action 2026 is a comprehensive international exhibition & experience platform dedicated to Diving, Marine Technology, Water Sports & Adventure, Tourism & Ocean Lifestyle.

Taking place in the heart of the Red Sea, ABOFA aims to transform Aqaba into the region's leading hub for diving, marine innovation, & coastal adventure industries.

The event brings together global brands, innovators, researchers, divers, investors, & marine professionals to connect, collaborate, showcase technology, conduct demonstrations, & engage in Themed Activities & B2C experiences.

**9-12**
**September 2026**

Aqaba international Exhibition Center (AIEC)

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- Diving & Underwater Sector
- Marine Technology & Innovation
- Water Sports & Adventure
- Underwater Photography & Gaming
- Boats & Marine Equipment
- Tourism & Lifestyle
- Education & Training Workshops & Startups
- Themed Activities

## Show Summary

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|---|---|---|---|
| *Exhibitors* | *Workshops* | *Speakers* | *Visitors* |

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## A NOTE FROM THE EDITOR

# Liveaboard lifestyle... or relaxed resort?

To stay in a comfortable dive resort, complete with sandy beach, bars and restaurants, or head out on a liveaboard, where your accommodation and other facilities travel with you, is a decision divers have to make on a regular basis, and while there are pros and cons to both, in this issue we give you plenty of food for thought on the two options.

Richard Aspinall heads off with Aggressor Adventures to the remote Cocos Island in search of schooling hammerheads and is blown away by both the scenery underwater and topside, while Don Silcock joins the traditional Phinisi-style Pindito to explore the dive sites around North Sulawesi in Indonesia.

Adding to the liveaboard mix, we also explore the diving hotspots around the Turks and Caicos Islands with Explorer Ventures, which are handily located a short hop from the eastern seaboard of the United States and are known for encounters with Caribbean reef sharks.

For those who prefer to keep their feet on terra firma, Sol Foo invites you to sample the Solitude Acacia Resort in the Philippines, which is well placed to access some superlative dive sites delivering everything from critters galore to mass shoaling fish.

Elsewhere, Don Silcock explains some of the challenges of shooting the wrecks at Truk Lagoon, I rate and review the Mares Active Pro heated vest, and there's part one of our Q&A with underwater photographer and film-maker Annie Crawley.

**Mark Evans, Editorial Director**

AGGRESSOR ADVENTURES

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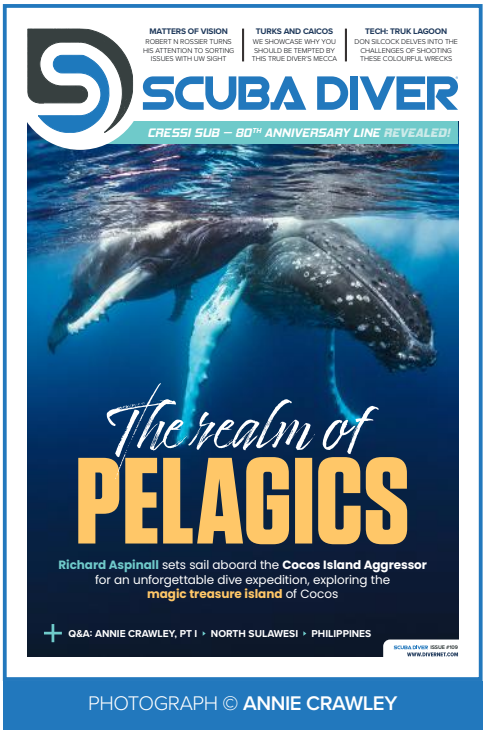
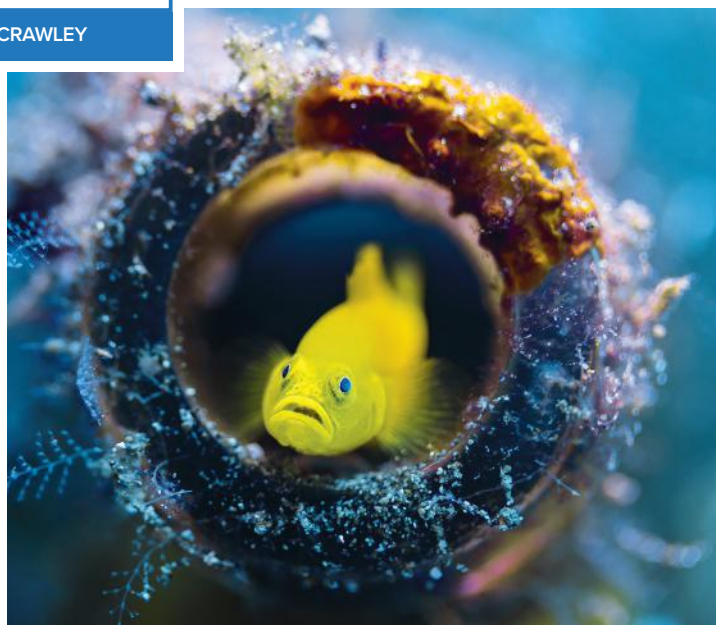



PHOTOGRAPH © **ANNIE CRAWLEY**



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Imagine a Caribbean island nation surrounded by dramatic walls, colourful coral reefs and a thriving population of reef

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sharks. We showcase why you should be tempted by the Turks and Caicos Islands – a true diver's Mecca.

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In the first of a two-part adventure, Don Silcock joins the legendary Edi Frommenwiler to explore some of the best dives sites in Northern Sulawesi.

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Tucked between the islands of Luzon and Mindoro in the Philippines lies a narrow strait that harbours one of the planet's most-extraordinary marine ecosystems. The Verde Island Passage, connecting the South China Sea with the Siloam Sea, represents a confluence of oceanographic forces that have created conditions unlike anywhere else on Earth, as Sol Foo explains.

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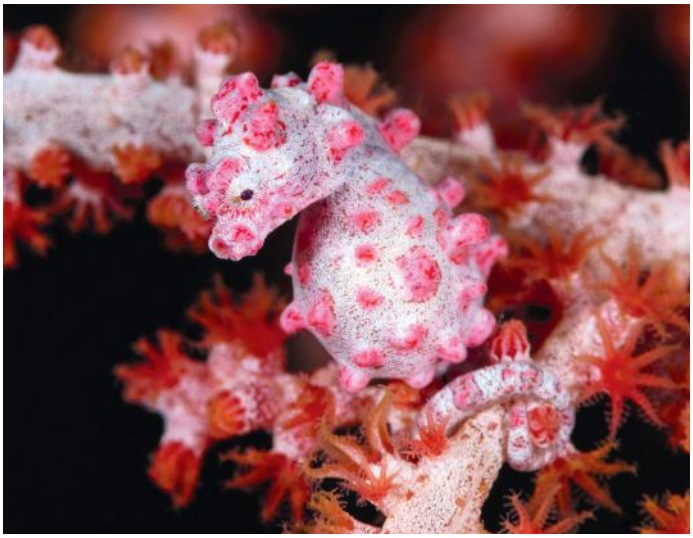
Cressi Sub is the oldest diving equipment manufacturing company in the world, and as it celebrates an incredible 80 years in existence, it has released a line of colourful anniversary gear which certainly stands out from the crowd. We take a closer look at the limited-edition Dive Yellow collection, that pays tribute to the history of the business, and embraces the vibrant colour that best represents the brand. It also features the original Cressi logo.

### 74 Test Extra

Editorial Director Mark Evans rates and reviews the Mares Active Pro heated vest, which is a cost-effective but efficient method of using modern technology to bring warmth to drysuit-clad divers.

*"This is the best diving I have ever done in 30 years of diving. All of the staff are the most helpful and gracious I have ever met in 50 years of traveling. The staff are as magnificent as the reef!"*

*~ Russell Graham, Dec 2025*



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# INDUSTRY NEWS

Each month, we bring together the latest regional industry news, as well as all over our water planet. To find out the most up-to-date news and views, check out the website or follow us on our various social media channels @divernetuk
www.divernet.com/news

# ‘UNDERWATER ANYWHERE’: ACE DIVER-CAMERAMAN DOUG ALLAN DIES

**Doug Allan, the celebrated wildlife cinematographer and photographer who brought extremes of both the underwater and topside world to mass audiences, died at the age of 74 on 8 April while on a climbing trip in Nepal.**

Allan was principal cameraman on acclaimed TV series such as The Blue Planet (2001) and Blue Planet II (2017) and his award-winning work featured in numerous other programmes seen by millions, including Planet Earth, Frozen Planet, Life, Human Planet, Expedition Iceberg and Forces of Nature. In the course of his career Allan made more than 100 documentary-filming trips, capturing such memorable on-screen firsts as orcas attacking grey whales off California, polar bears trying to capture belugas in a frozen hole in Arctic Canada and killer whales washing seals off ice-floes in Antarctica.

The SSI Platinum Pro Diver had logged more than 8,000 hours under water, some 500 of which were spent working under ice. No details of the circumstances of Allan’s death have yet been issued. His ex-wife of 15 years Sue Flood, also a wildlife film-maker and photographer, stated: “It is of comfort to know that he was doing something adventurous with a dear friend of ours, with whom he’d shared many adventures over several decades.

“Doug was a brilliant and incredibly determined cameraman and photographer, who will also rightly be remembered as the passionate conservationist he was, whose legacy is the incredible body of work which has inspired so many.”

## Influenced by Cousteau

Doug Allan was born in Dunfermline in Scotland on 17 July, 1951 and was inspired from an early age to take up snorkelling and scuba diving after seeing Jacques Cousteau’s ground-breaking 1956 documentary The Silent World. He graduated with an honours degree in marine biology from Stirling University in 1973 but decided at that point that it was being ‘underwater anywhere’ that would be his main driving force.

For the next three years he worked on jobs ranging from freshwater pearl-diving in Scottish rivers to underwater video work and canal-rebuilding in Germany. He travelled as a research assistant on marine-biological expeditions to the Red Sea with Cambridge University, and in the summer of 1975 ran Bouley Bay Underwater Centre in Jersey in the Channel Islands.

His break came the following year when the British Antarctic Survey took him on as a research diver at its base on Signy island in the South Orkney Islands. He would dive there from boats in the summer seasons and through holes cut into the ice in winter. Allan spent four winters and nine summers in Antarctica over the next ten years, and was awarded the Fuchs Medal and then the first of two Polar

Photography © Doug Allan,Sue Flood and Nick Law

Medals for his work there. His first commercial success using a film rather than a stills camera came while he was base commander at Halley Station and his footage of Emperor penguins was bought by the BBC.

This and his ice-diving experience led him to propose two Antarctic-based films for the Anglia TV series Survival, which he spent ten months making.

Allan had met renowned naturalist and TV personality David Attenborough in 1981, and their chance encounter led to him working on the Antarctic sequences for the BBC documentary series Living Planet and starting to gain his reputation as an extreme-environment specialist.

When filming underwater he would scuba dive, snorkel or freedive, depending on the circumstances. One of many polar experiences he recalled involved a hungry walrus thinking he was a seal and grabbing his legs while he was underwater, forcing Allan to scare it off by hitting it on the head with his camera.

### Other activities

As a freelance film-maker, Allan worked not only for the BBC but Discovery, National Geographic and other channels. He would later appear in front of as well as behind the camera, both filming and presenting for the BBC whales series Ocean Giants in 2011 and the following year for Operation Iceberg. Allan ran his film company Tartan Dragon from his Bristol base from 2002. He contributed to many radio broadcasts and in 2012 his book Freeze Frame: A Wildlife Cameraman's Adventures on Ice was published.

He also wrote two children's books and numerous articles, as well as touring regularly to give presentations on wildlife, diving, film-making, photography and environmental issues. As a long-time eco-campaigner, earlier this year Allan had called for the Scottish government to introduce new legislation to deter companies that he accused of damaging nature. The winner of eight Emmy Awards, five BAFTAs and numerous other accolades, he was made an OBE for his services to broadcast media and environmental awareness in 2024. He was also an honourary fellow of the Royal Photographic Society and a member of the Explorers Club.

### Immersed in nature

"Doug died immersed in nature and surrounded by friends," stated Allan's management company Jo Sarsby Management, describing him as "a true pioneer of wildlife film-making" who had "captured some of the most breath-taking and intimate moments in the natural world" to leave a visual legacy that few could ever match.

"When we think of Doug, we will always remember his unforgettable kindness and his extraordinary talent," it continued. "He was a true gentleman and he will be profoundly missed.

"Our thoughts are with his family, friends, colleagues across the wildlife film-making industry and the many people around the world who admired his work." ■

## BUDDY DIVE RESORT BONAIRE **WELCOMES NEW COURSE DIRECTOR**

Buddy Dive Resort has announced the appointment of Rosie Alvelais Crocker as the new Course Director for Buddy Dive Academy, bringing international teaching experience and a strong passion for professional dive training to the island. Rosie's journey into scuba diving began far from the ocean. Born in Chihuahua, Mexico, and raised in El Paso, Texas, she developed an early fascination with marine life during family beach trips. After earning a degree in Journalism and Communications from the University of Kansas, she set off travelling; an adventure that led her to discover scuba diving and ultimately change the direction of her career.

Since completing her Divemaster and Instructor Development Course in 2018, Rosie has built an impressive teaching career across Honduras, North Carolina, and Hawaii. Over the years she advanced from instructor to Course Director in Utila, Honduras, gaining extensive experience mentoring dive professionals and leading instructor training programmes.

At Buddy Dive Academy, Rosie will oversee Divemaster, Instructor Development Course (IDC), and MSDT programmes. Known for her coaching-focused and relationship-driven teaching style, she emphasizes developing confident dive leaders who can succeed in real-world environments.

"Buddy Dive's reputation for professionalism, quality training, and community made it an exciting next step," says Rosie. "Training future dive professionals here on Bonaire, with its incredible shore diving and supportive environment, creates a truly immersive learning experience."

Rosie's vision is clear: to ensure every candidate leaves the academy feeling confident, supported, and ready to thrive as a dive professional.

# DEEP INVITES APPLICANTS **FOR SAT-DIVER TRAINING**

The most-advanced closed-bell diver-training system in the world, and the only one of its kind in the Northern Hemisphere – that's the claim for a new pathway into commercial saturation-diving now available in the UK.

The DEEP facility in Gloucestershire has just opened applications for its UK HSE Closed Bell Diver training courses, a qualification it says is essential for sat-divers working in offshore oil, gas and renewable-energy projects in the North Sea and elsewhere. The three-week courses, priced at £30,000, are designed to equip those who already have at least 100 hours' experience as offshore surface-supplied divers to make the move into closed-bell diving.

The programme combines classroom-based theory with hands-on practical training, covering closed-bell operations, life-support systems, transfer under pressure and emergency response procedures. The initial courses this autumn have already been allocated, so new applicants will start their training from next January.

### Making humans aquatic

The DEEP 'campus' is built on a barge system in the 80m-deep Dayhouse Lake near Tidenham formerly known as NDAC (National Diving & Activity Centre), which closed to recreational divers in 2022. The facility describes its mission as being 'to make humans aquatic', developing subsea habitats as well as training 'to enable a continuous human presence in the ocean'.

For the sat-diver courses the facility provides a six-person living chamber and a three-person bell, with the sheltered environment said to enable 'safe, controlled training conditions year-round'.

"The course is ideal for divers who have completed surface-supplied training and gained industry experience, and who are now looking to take the next step in their career development," says DEEP Institute CEO Dennis Nelson.

"Longer-term, the application of the saturation system will be broader – from habitat diver training to providing a pathway for experienced divers from scientific, research, military and other communities to develop the skills needed to work underwater for extended periods."

The UK HSE Closed Bell Diver certification will be the highest-level professional commercial-diving certification issued by the UK Health & Safety Executive for saturation and mixed-gas bell diving, says DEEP, and a qualification recognised worldwide.

DEEP also currently offers training for recreational divers and others, including Closed-Circuit Rebreather, Diver Medical Technician and Submersible Search & Rescue.
**www.deep.com/courses**

# PIONEERING UK CAVE-DIVER **GEOFF YEADON DIES**

Veteran British cave-diver Geoff Yeadon, president of the Cave Diving Group (CDG), has died at the age of 73. He was regarded as a pioneering force in the UK cave-diving community for his exploits from the late 1960s onwards and his contribution to developing diving techniques.

Yeadon was best known for his explorations beneath the Yorkshire Dales, the region where he was born and brought up. He was central to some of the biggest breakthroughs in its underground systems, determined to find the links between those of Yorkshire and others beneath Cumbria and Lancashire, and was also known for championing solo-diving in specific British sump conditions.

Born in 1953, Yeadon became involved in caving and cave-diving in the late 1960s, when the discipline was still at an experimental stage that required divers to develop their own equipment configurations and safety procedures. Yeadon would contribute to refinements in line-laying and navigation techniques that later became standard safety practice.
In 1974 he discovered the 40m-high Aquamole Aven and was the first to pass the 168m sump upstream from Rowten Pot. In 1978, after four years of work on the project, he and fellow-diver Oliver 'Bear' Statham connected Kingsdale Master Cave to Keld Head.

This ground-breaking 1,829 metre traverse was a world record at the time, monitored by a surface team using a speleophone to communicate with the divers and tracking their route with lights.

The dive was immortalised in the Yorkshire TV documentary The Underground Eiger. A must-see for cave-divers, the 50-minute film attracted an estimated 20 million viewers at the time, and inspired a new generation of divers such as Rick Stanton. It can be watched today on YouTube.

In terms of dry-caving, linking Gaping Gill with Ingleborough Cave in 1983 was another breakthrough achieved by Yeadon and others, following more than a century of exploration of the caves.

Later UK achievements included linking King Pot with Keld Head in a 3km traverse in 1991. Yeadon retired from diving six years later, though he continued to be active in the caving community. He died on 29 March from a heart attack while attending a rally.

# NELSON'S VICTIM: DIVERS FIND 1801 DANISH **FLAGSHIP, SAILOR'S BONES**

Maritime archaeologists from Denmark's Viking Ship Museum say they have discovered the wreck of a famous 18th century naval flagship, the Dannebroge, complete with many artefacts and human remains. They timed the announcement for 2 April, 225 years to the day since the ship was sunk at the Battle of Copenhagen.

On the morning of 2 April, 1801, Dannebroge was the central command vessel of a Danish-Norwegian defence force that engaged a powerful Royal Navy fleet commanded by Sir Horatio Nelson. The British admiral made the Dannebroge – the name translates as 'Banner of the Danes' – his primary target. The flagship of Commander Olfert Fischer, Dannebroge was heavily bombarded by two British ships of the line and set ablaze. At around 4.30pm, soon after the six-hour battle had ended in a ceasefire, the Dannebroge exploded.

The vessel sank in an area called the King's Deep, where its remains have now been found at a depth of around 15m.

© Viking Ship Museum in Roskilde

## Central to Danish history

The Viking Ship Museum, which is responsible for maritime archaeology in eastern Denmark, has been conducting surveys, diver inspections, sediment-sampling and excavations in the area since 2020, in connection with the impending construction of an artificial island called Lynetteholm.

"This is the first time archaeological investigations have been undertaken that are directly linked to the Battle of Copenhagen," says excavation leader Otto Uldum. "Although the battle is a central event in Danish history no one, to my knowledge, has examined it archaeologically until now. That is actually quite remarkable."

The battle took place on the Copenhagen Roads, a shallow anchorage for large vessels outside the city, and Nelson's fleet had 1,270 guns – one and a half times as many as the Danish fleet. Dannebroge was 48 metres long with a 13 metre beam, built in Nyholm, Copenhagen as a ship of the line. It had carried 60 guns when commissioned into the navy in 1774, though some of these had recently been removed when it was reduced and re-rigged as a blockship. Visibility at the wreck-site is reported to be almost zero as a result of heavy silting but the divers are in no doubt that it is the Dannebroge.

"We have no difficulty interpreting this as the remains of a large wooden warship," says Uldum. "The dimensions of the timbers correspond exactly to the drawings of the ship that survive, and the dendrochronological dating matches the vessel's year of construction in 1772. So we are stating this with a degree of certainty that borders on absolute."

The wreck-site was 'littered' with cannonballs and bar shot, he says, and two cannon had been found.

## Physical and concrete

The ship's exposed ballast pile stretches over more than 28 metres and is 12 metres wide and several metres high. "With the excavation, we gain something physical and concrete," says Uldum. "There is a large wreck and a substantial ballast mound, but it is Dannebroge's ballast and Dannebroge's ship timbers.

"These are the remains of an entire ship of the line, and it lies in a place where we can now touch it."

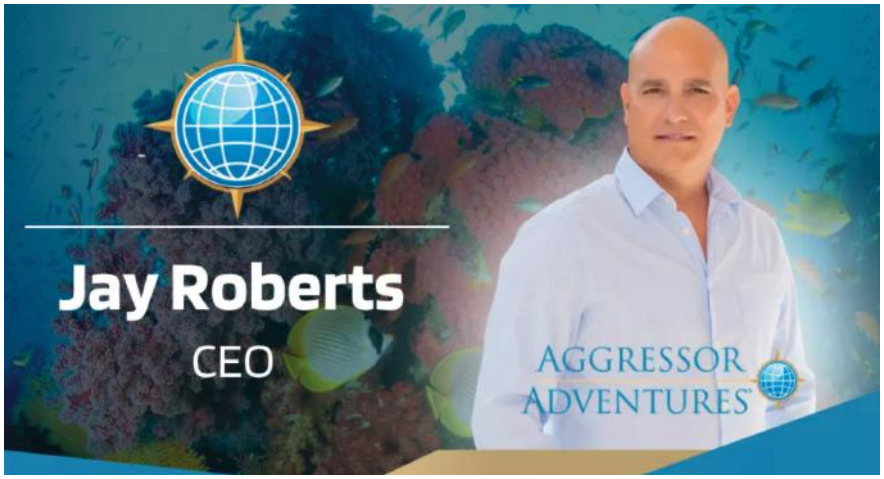
Artefacts connected to the crew were also emerging, says Uldum. "We have found a number of personal belongings: shoes and fragments of clothing and various small items the sailors would have carried with them – clay pipes, uniform insignia and weapons."

There had been a crew of 357 men, of whom 53 had died on board, three succumbed later to their injuries and 48 of the survivors had been injured. Remains of one of the 19 men listed as missing had now been found.

"We have found a lower jaw that is without doubt human, as well as several other bones, including ribs, which could very well be human," says Uldum "We are far from finished sorting and analysing the material, but we are bringing everything up."

All material recovered by the dive-team is documented using 3D scanning, surveying and photographic recording. Archaeological investigations at the Dannebroge site are expected to be completed this spring.

## JAY ROBERTS APPOINTED CEO OF **AGGRESSOR ADVENTURES**




Aggressor Adventures has announced the appointment of Jay Roberts as Chief Executive Officer, following the passing of longtime CEO Wayne Brown. Appointed by Dana Brown, owner of Aggressor Adventures, Jay steps into this role with more than 30 years in the diving industry and over two decades of leadership within the Aggressor family. As Aggressor Adventures looks ahead to its next chapter, the mission remains unchanged: to deliver world-class adventures, foster exploration, and create unforgettable experiences for guests around the globe. Jay Roberts brings the experience, passion, and deep operational knowledge to lead the company forward while honoring the foundation that has defined Aggressor since 1984.

"Jay has dedicated his career to Aggressor Adventures and embodies everything this company stands for," said Dana.

Born in Clearwater, Florida, and raised in Dover, Arkansas, Jay developed a love for exploration at an early age. Today, he lives in Augusta, Georgia, with his wife and children, sharing that same spirit of adventure with his family. Some of his most-meaningful memories have happened aboard Aggressor yachts, from certifying his son as a diver to watching his daughter take her first steps onboard. Jay discovered scuba diving at age 19 and quickly turned that passion into a profession. Over the years, he rose through the ranks to become a PADI Staff Instructor and SSI Instructor Trainer and now celebrates 30 years as a dedicated professional in the dive industry.

His journey with the company began in true adventurer fashion and has since spanned roles from Cruise Director to Captain to Operations Manager, and now CEO. What started with that bold introduction grew into a remarkable journey through nearly every level of the organization. Throughout his many roles within the company, Jay has helped shape Aggressor's global operations through hand's-on leadership and a deep understanding of what makes the guest experience exceptional. He has led teams across multiple destinations, served as a Relief Captain throughout the fleet, and helped scout and develop new dive destinations around the world. Under Jay's leadership, Aggressor Adventures will continue expanding its global footprint across Liveaboards, River Cruises, and Signature Lodges while maintaining the standards of safety, service, and exploration that guests have trusted for decades.

"Aggressor Adventures has always been about more than just travel. It's about creating meaningful experiences and lifelong connections. I'm honored to step into this role and continue building on the legacy that Wayne helped create. Our commitment to safety, service, and exploration remains as strong as ever," said Jay.

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# Ask DAN

DAN medical specialists and researchers answer your dive medicine questions

## Is it harmful to pee in a wetsuit?

Divers have an adage: 'There are two types of people — those who pee in their wetsuit and those who lie and say they don't'. Urinating in a wetsuit is common for many recreational divers and is generally not harmful when exposure is limited. Immersion in water, especially cold water, triggers immersion diuresis, which shifts blood into the central circulation and increases urine production. Most divers feel that urge within minutes of entering the water.

Some divers choose to relieve themselves during the dive rather than hold it, especially on longer dives or in cold water. That practice can be reasonable if the diver cleans the wetsuit afterward, but it also comes with a few considerations for both the diver and the suit.

Holding urine through a full dive can be uncomfortable and can increase the risk of bladder irritation or urinary tract infection. A full bladder can also be distracting underwater when awareness and control matter most. From a comfort and safety standpoint, it is understandable that a diver would choose to empty their bladder rather than tolerate significant pressure and distraction.

Urine that remains in contact with the skin for extended periods, however, can cause skin irritation. It contains compounds that can disrupt the natural protective layer of the skin and affect the pH, possibly leading to redness, itching, or a rash if the contact continues after the dive.

The same compounds can also gradually affect neoprene if the suit is not rinsed well, and repeated exposure can shorten the wetsuit's life. Divers who urinate in their wetsuit should promptly remove it after the dive, rinse their skin with fresh water to help reduce the likelihood of irritation, and thoroughly clean the suit.

A potential issue is the fit of your suit. Very tight wetsuits have limited space for urine to move away from the body. In some cases, a diver may start to urinate and then stop before the bladder empties completely even though the urethra remains open, which could theoretically cause urine backflow into the bladder due to pressure, increasing the risk of a urinary tract infection. A diver who notices difficulty fully emptying the bladder in a tight suit may benefit from a different fit. Stinging organisms that may be present inside the suit from previous dives or that enter through gaps caused by improper fit may cause other issues. Urine can activate small hydroids, larvae, or jellyfish fragments and cause irritation or welts against bare skin. While this is an uncommon problem, regularly rinsing your wetsuit between dives and making sure it fits correctly helps reduce your risk.

Good wetsuit hygiene prevents odour and irritation and protects the material. Recommended practices include rinsing the inside and outside of the suit with fresh water after every dive, using wetsuit-safe cleaners when needed, and fully drying the suit before storage. Rental operations should have clear cleaning protocols to prevent cross contamination.

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**Ask any biologist why islands are special and they will talk about geographic isolation and endemic species. They might also mention Darwin and natural selection, as well as biodiversity hotspots and species richness. This might sound technical, but it is why divers love islands too - the sheer abundance and concentration of habitats and life, of every hue, size, and shape.**

Islands shelter oases of life amid empty expanses and allow evolution to take unique directions. Species washed up on isolated shores can become unique endemics over time, subtly different to their mainland ancestors and found nowhere else. Of all the islands divers can enjoy, Isla de la Coco – or simply 'Cocos' - is one of the finest, offering some of the greatest wildlife spectacles on Earth. Jaques Cousteau described it as 'the most beautiful island in the world.' Who are we to disagree with Cousteau?

Cocos lies 340 miles off the Pacific coast of Costa Rica, one of a series of volcanic sea mounts running down to Galapagos. It is remote, isolated, and save for a few researchers and rangers, uninhabited. Some of its perilously steep valleys are still unexplored and there is a chance, albeit remote, pirate treasure remains unearthed!

The yacht takes 36 hours to reach Cocos from the port of Puntarenas. The crossing can be rough, so seasickness medication is advised for the sensitive. But it is worth it to wake in Chatham Bay to a sky wheeling with sea birds, lush and verdant tropical rainforest tempting you onto land to explore, and all around, the sea is alive with fish breaking the surface, hinting at an underwater world just as rich and complex. After several days of travel, the 22 guests, from Europe and the Americas, were eager to be in the water, and after briefings on safety and dive operations we kitted up for our check dive.

Diving is exclusively from large RIBs (called 'pangas'), each carrying ten to 12 divers. Kit stays on the panga with cylinders filled using long hoses. Kitting up is easier than expected with the guides and boat-handler helping.

I had little idea what to expect as we headed a short distance from the yacht to a site known as Coral Garden and rolled backwards into the warm water. My first impression was fish and lots of 'em, and current. And, as I found shelter behind a massive rock, I was astonished to see whitetip reef sharks – not one or two, but scores of them, resting up on sandy patches. Snappers shoaled in their hundreds and stunning king angelfish and moorish idols nipped away at morsels of food on the rocks. While this was a great dive, and in just minutes I had seen more sharks than in the last few years of diving, what we were really after were hammerheads.

> "It is hard to imagine, but sharks were becoming so common they became unremarkable. In just one dive in Cocos, I had seen more hammerheads than I'd previously seen in over 20 years of diving. Truly astonishing!"

Scalloped hammerheads are drawn to Cocos in significant numbers, following sea mounts and underwater clues all the way from Galapagos and Malpelo. These large sharks, which can reach around four metres, travel to Cocos in their hundreds. The island is one of the few locations on Earth where you can dive with them in such numbers. Their lives are not entirely understood, but many females show wounds that indicate rough courtship and mating had recently been taking place.

While the hammerheads spend much of their time in the blue, they visit the reefs for the services of the barberfish. These small yellow butterflyfish hover in shoals around prominent rocks and will flock around any shark (and often other fish) approaching them and picking away at parasites and old wounds.

# COCOS island

**Richard Aspinall explores this magical treasure island that inspired Robert Louis Stevenson and Jaques Cousteau and was the fictional setting for Jurassic Park. He finds out why it is so rich with life, and has an unforgettable diving adventure aboard Cocos Island Aggressor**

Photographs by Richard Aspinall

## Did you know?

Cocos Island is a volcanic island in the Pacific Ocean administered by Costa Rica, approximately 550km southwest of the Costa Rican mainland. It is the southernmost point of geopolitical North America, and the only landmass above water on the Cocos tectonic plate.

## Did you know?

Scalloped hammerhead sharks are a highlight of Cocos Island, often seen in large schools around seamounts and cleaning stations. These iconic predators patrol deep blue waters, favouring strong currents, and are a major draw for divers seeking dramatic, close-up encounters.

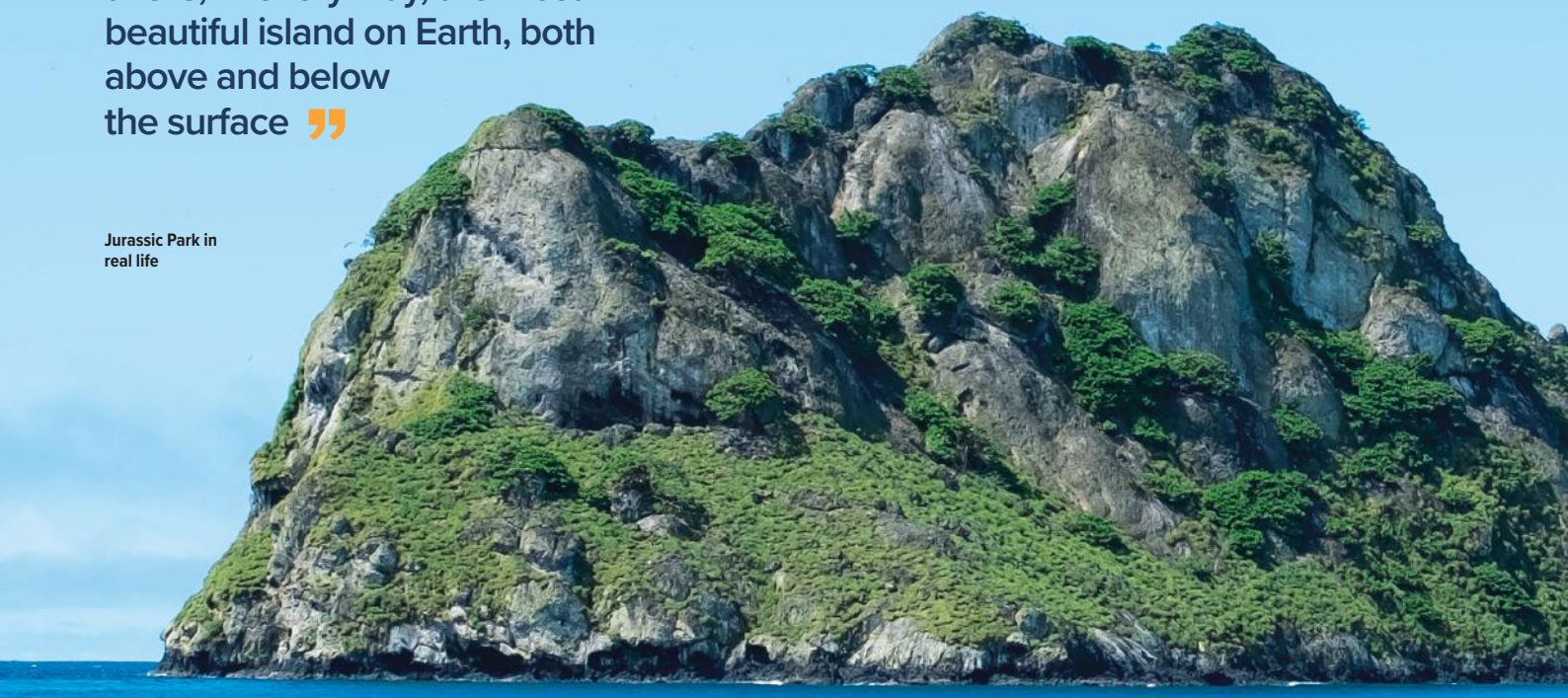
Schooling hammerhead sharks

Our first dive would be at Manuelita Island. It offers three amazing shark dives, and we would spend a good chunk of our week around its flanks. Like the rest of the complicated underwater typography, Manuelita is a steep-sided volcanic rock surrounded by car-sized boulders.

The dive plan called for a negative entry and a quick descent to avoid currents before a rendezvous with the group at around 20m, before heading to the cleaning station and hunkering down amid the rocks. This may not be the trip for novices - Cocos demands confidence and the ability to deal with currents. I should add that every diver is given a GPS beacon, just in case.

> “I have travelled extensively and I cannot disagree with Cousteau – this is, in every way, the most beautiful island on Earth, both above and below the surface”

Cleaning stations around Cocos, are typically at around 30m. And with a heavy plankton load in the water, visibility was not great (though it is very variable with the season). But, sure enough, we could see the barberfish and within minutes half a dozen hammerheads approached. I fired off a few shots and quickly learned that strobes were not a great idea as the sharks were spooked. If I was to see any hammerhead action, I’d be shooting on ambient light only. I’d also not win any friends among the rest of the group if I scared these skittish fish away. The hammers approached the large rocks where, by some ‘ancient fishy agreement’ between themselves and the barberfish, they would meet. Arching their backs sometimes and appearing to relish the cleaners’ attentions, the sharks were astonishing to watch - such muscular powerful animals, yet so sensitive to the world around them.



Jurassic Park in real life

The hammerheads kept on coming. Large marble rays passed by, and a manta provided a silhouette in the surface waters above, and of course, whitetips littered the floor. We had to remember to watch our depth and dive time with our 32 per cent gas blend. For my first dive with scalloped hammerheads, I could not have been happier!

Manuelita continued to impress over the week with the island's edge forming a channel between it and Cocos. Here, huge shoals of jacks would congregate, sometimes mimicking sea mounts as they were so dense and large. Briefly, what we took to be a school revealed itself to be a whale shark passing above, enjoying the plankton-rich waters.

Cocos owes its rich biodiversity to its location and geography of course, but also to converging nutrient-rich currents. Nutrients are further cycled between the land and the water, maintaining the ocean's foundational planktonic food that in turn feeds fish in their millions, including fourteen species of sharks and countless other associated lifeforms.

Cocos sits at the heart of a National Park of over 200,000 hectares. Fishing is banned in this UNESCO World Heritage Site and unlike many other marine protected areas, the rules are enforced. Diving at Cocos is a rare and exclusive privilege, and on occasion, Cocos Island Aggressor is the only yacht there. Rarely do itineraries mean that the island is shared with the other Aggressor yacht, Okeanos Aggressor 2.

Offering a slightly different experience to Manuelita is Submerged Rock, on the other side of the island to the northerly Chatham Bay. Used for the aerial shots in the helicopter scenes in Jurassic Park, Submerged Rock is a ten-minute ride by panga, offering the chance to see more of the island's scenery. As the name suggests, the site is a large sea mount that fails to break the surface - a small squat pinnacle bathed in current.

Snapper shoal

Happy divers returning to the liveaboard

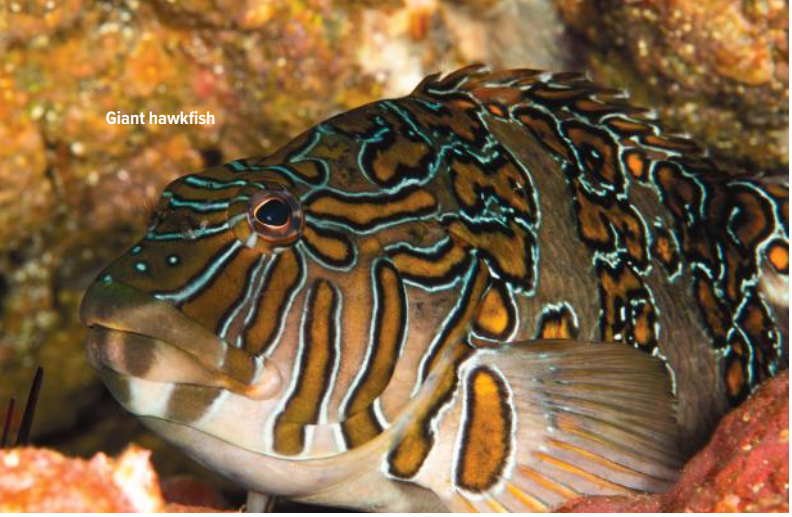
## Did you know?

The island's isolation has led to unique species you won't see anywhere else, alongside abundant ocean-going birds riding the updrafts.

The currents, while occasionally strong, tended not to be an issue. Dive plans would adjust accordingly, and most dives were drift dives. The water could get a little chilly at depth, so I would recommend a 5mm suit.

Submerged Rock offered more sharks with a shallow plateau, again filled with whitetips. On closer inspection, the sharks were resting and being cleaned by small and colourful island cleaner blennies. Not for the first time did I wish I could switch between wide-angle and macro while underwater. However, I had a 16-30mm zoom lens fitted and it worked well, allowing me further 'reach' with the hammers – which were passing by once more. This site is noted for a swim-through, which at first is hidden, as it is so full of fish. It can be exhilarating as the current shoots you through to the other side.

Not far from Submerged Rock is Alcyone, one of Cousteau's favourite sites in all the


Giant hawkfish

There are many swim-throughs and overhangs to explore

Scalloped hammerhead

Yellowmouth moray eel

world and named for his experimental vessel. Our first visit to Alcyone was in warm but torrential tropical rain – this is one of the wettest places on Earth after all. The site, marked by a buoy, relies on divers descending down a line to the mount below. Immediately we settled in among the rocks with Warren (the guide and Cruise Director) indicating where we should stay. Visibility was much better, though a good torch would bring out the colours, showing the bright pink of the barnacle- and algae-covered rocks – empty ones were homes to little blennies, and good numbers of long-spined urchins reminded us not to be complacent.

it is no wonder Cousteau loved Alcyone; I happily shot away at the almost-tame fish, from leather bass to giant hawkfish. Once more we were joined by hammerheads at a cleaning station below. Snapper and rainbow runners and a massive shoal of jacks competed for our attention and at one point a dolphin made a high-speed pass, picking a prize from the throng, and two Galapagos sharks and a blacktip cruised by before we had to ascend.

Most dives would see us repeat this pattern. We would watch the sharks and then ascend slowly away from the rocks into the blue, keeping together as a group. Sometimes we saw little other than large numbers of snapper, grunts, jacks and trevallies but on two special occasions, we saw a wall of hammerheads, keeping their distance, but providing an iconic spectacle. On one ascent, from Alcyone, a sailfish over a metre long passed by, but it was only a fleeting glimpse.

We returned to Alcyone several times and settled again into the comfortable rhythm of 'get down, watch the sharks, and enjoy the spectacle'. However, the biologist in me was eager to explore the other habitats Cocos offers, so when the chance came to land on the beach at Chatham Bay, I could not have been happier.

Cocos is thickly covered in dense tropical rainforest, every tree clothed in ferns, mosses and bromeliads. The river and waterfall attracted folks who wanted a swim, but I wanted to find some bird life. I managed to shoot some local lizards before 'bagging' the Cocos Island finch, an endemic relative of Darwin's Galapagos finches. A trek up the hill was a bit muddy but provided spectacular views across the bay to Cocos Island Aggressor moored up in the sunshine. The rainforest behind was dense and lush, with tendrils of cloud reaching into the valleys. Our time on the island was brief and, after posing at Cousteau Rock, we headed back out.

I was keen to find other local oddities underwater, so switched to a macro lens for another dive at Coral Garden.

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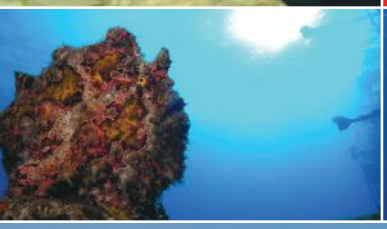

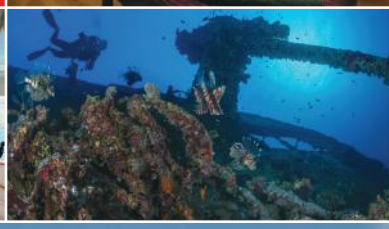

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Dramatic waterfall

Manta ray

Mantis shrimp

My initial hope for the dive would be to find frogfish (easier to find at Cocos than many locations) but, with the help of our excellent guide, Eduardo, other gems were uncovered including a mantis shrimp and a snowflake moray. I also indulged in a little serious fish geekery and found the endemic Cocos triplefin, and the barnacle blenny I had first seen at Alcyone. No frogfish were found and the rest of the day would revolve around hammerheads again.

It is hard to imagine, but sharks were becoming so common they became unremarkable. In just one dive in Cocos, I had seen more hammerheads than I'd previously seen in over 20 years of diving. Truly astonishing! Whitetip reef sharks were almost ignored in their ubiquity, yet just weeks before in the Red Sea I'd been ecstatic to see just one. It is remarkable just how Cocos can provide spectacle after spectacle and wonder on top of wonder.

I should praise the yacht and her crew: large, capable and comfortable Cocos Island Aggressor was a joy to be aboard. The cabins were roomy and well-appointed and the food exceptional, with offerings of sushi rolls and sashimi on one evening and a Mexican feast on another. The well-equipped camera and charging areas were very welcome also, and the excellent coffeemaker became my best friend.

We enjoyed three dives per day, with every single one offering sharks at the sites I have listed here, as well as Dirty Rock, Small Dos Amigos, and Punta Maria. We had an intriguing dive at Lobster Rock, where lobster were indeed found. This flat site offered sea grass and sand, and finally, a bright orange frogfish resting up in a rhodolith field. Rhodoliths start as pebbles which become encrusted in layers of pink, calcareous algae. As they roll around in the current, they grow and form large patches of potato-sized nodules – again another fascinating habitat. I could have spent a week exploring this one site alone, hunting for critters, but I would settle for my frogfish. I had photographed a good assortment of the island's residents and visitors alike, and my memory cards were full.

When describing Cocos, it is easy to run out of superlatives. It is without question the finest location I have ever dived. It is a biological and cultural wonder and, joyfully, it is protected for future generations with park fees contributing to the island's future care. I have travelled extensively and I cannot disagree with Cousteau – this is, in every way, the most beautiful island on Earth, both above and below the surface. I would go further: a trip aboard Cocos Island Aggressor is one of the finest liveaboard experiences available. If Cocos is not on your destination list, then it should be. Pura Vida Cocos! ■

## Need to know

Richard flew with KLM into San Jose, from Amsterdam. Flights into San Jose are available from several American, Canadian, and Mexican airports.

Aggressor and their partner hotel provide an excellent shuttle service to the yacht at Puntarenas. National Park fees are paid locally, and the boat accepts all major credit cards and US$. Nitrox is available, as are nitrox courses, and kit hire can be arranged.

Wi-fi is available for a small charge. English and Spanish are spoken by the guides and crew.

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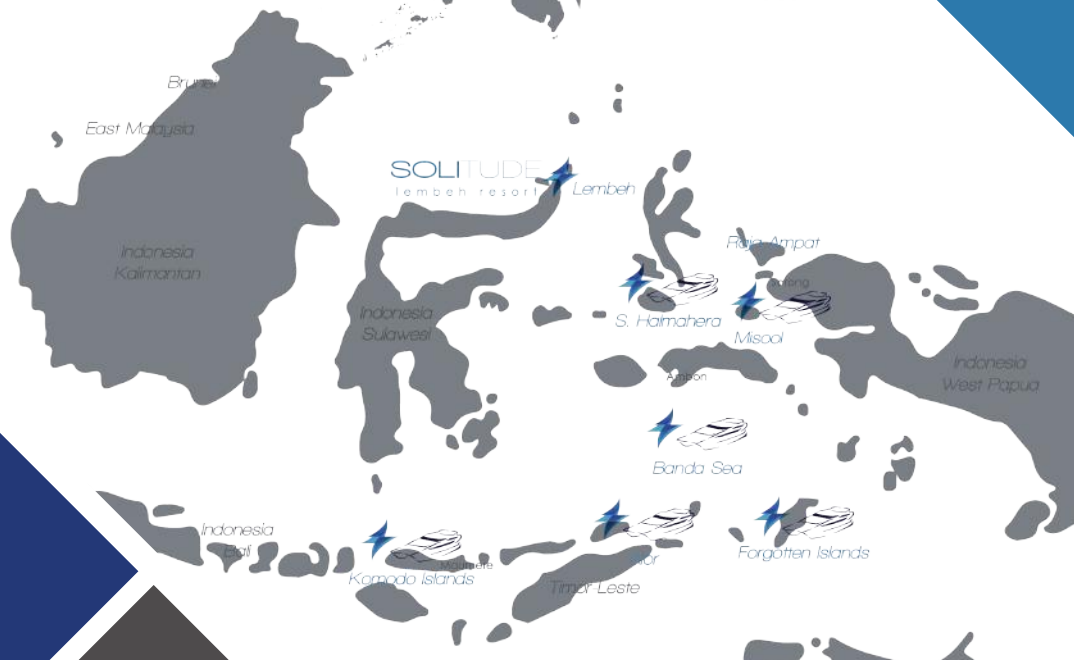


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# SCUBA DIVER Q&A
# ANNIE CRAWLEY PT I

We chat to acclaimed film-maker, underwater photographer, author and ocean educator about her enduring love affair with the sea, and her mission to protect our blue planet for future generations.

Photographs courtesy of Annie Crawley

**Q: As we always do with these Questions and Answer sessions, how did you first get into scuba diving?**

A: I often say I got into scuba diving by following the signs of life. Born and raised in Chicago, water was always part of my world. We grew up with a backyard pool, you can only imagine the shenanigans we got into. I competed on swim team, swam in Lake Michigan, and found every possible waterhole when we went camping across the USA. Looking back, it feels like I was always meant to be in the water. But diving itself wasn't in my consciousness.

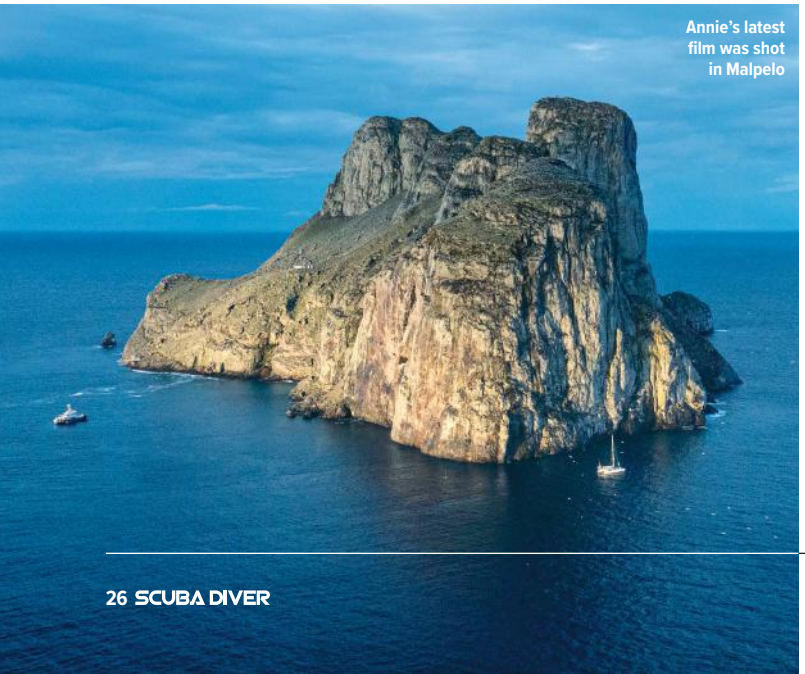
That changed after college, when I planned a gap year and Australia was the first stop. Within the first two weeks of arriving, I was walking down a sidewalk in Perth when a colourful sign caught my eye: 'Learn to Scuba Dive'. I walked in and signed up for my PADI Open Water course.

A few days later, I entered the pool for the first time. I remember the moment clearly - placing the regulator in my mouth, pausing, and taking that first breath underwater. It wasn't hesitation, but a sense of unknowing - stepping into something my body had never experienced before. Then I breathed in and out, and everything shifted in my life.

That breath slowed everything down. It brought awareness, presence, and a connection I had never felt before. It wasn't just about learning to dive - it was the beginning of my life. When I went to the ocean a few days later, I knew I found my passion and what would become my vocation and my purpose. Within the year I became a Divemaster; the following year in New Zealand a dive instructor, I then cashed in my ticket home for a one-way ticket to Bali and worked for two years throughout Indonesia as a dive instructor. The ocean became my home. You can say my entire life changed with that first breath underwater.

Annie back from a photo dive

> "Within the first two weeks of arriving, I was walking down a sidewalk in Perth when a colourful sign caught my eye: 'Learn to Scuba Dive'"



Annie's latest film was shot in Malpelo

**Q: You initially worked as a photo and broadcast journalist, but have since carved out a niche as a talented underwater photographer and film-maker – when did you pick up a camera and head underwater?**

A: My junior year of college I found photo-journalism at the University of Illinois. I had a fabulous instructor who encouraged me to pursue the path and we had only the second digital photo-lab in the country. Now professor emeritus Brian Johnson brought in Mac computers and Photoshop at a time we were still printing on the press.



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The sad reality of threats to sharks

Anemonefish

Scalloped hammerheads

Whale shark

Fast forward to living abroad as a dive instructor, I always had my land camera but could not afford to house it. Remember three plus decades ago we were all using film.

After returning home from my first stint abroad, I moved to California. Here I pursued my career and always returned to the ocean as a part-time dive instructor and crew aboard our local boats. Deep inside of me, I knew I had to follow my dreams of merging photography/video together with what I experienced underwater. I quit my job, sold my car, and bought my underwater camera housings for both photo and video. I took the Undersea Program at what was then Brooks Institute of Photography and then went to work on liveaboard boats all around the world to perfect my skills.

It was 2006 when I founded my company Dive Into Your Imagination and started creating books, productions and more to connect the next generation to the world we all love. The ocean is underrepresented in our education system and often misrepresented by the media. The ocean I fell in love with from the very beginning is not what was being broadcast. I wanted to be a part of the sea change.

**Q: You have shot documentaries in some challenging environments, most recently out in the waters off the remote Malpelo Island, Colombia. Tell us about some of the difficulties you encounter in these locations.**

A: Filming in remote places like Malpelo Island is both logistically demanding and deeply humbling. It's one of the most-isolated marine environments in the world, located within the Eastern Tropical Pacific Marine Corridor, and simply getting there is a commitment. Once on site, everything becomes more complex.

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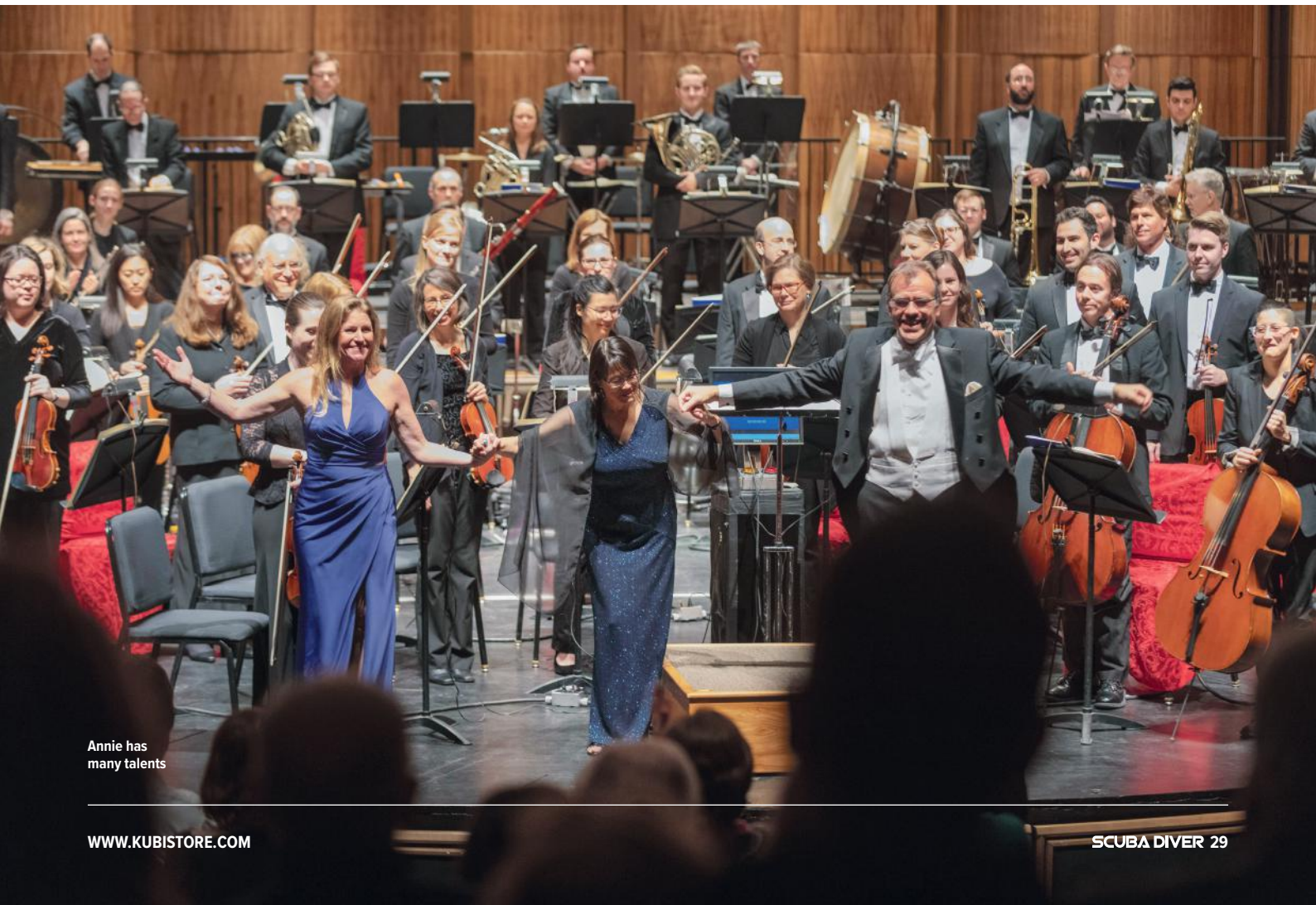
Sharks on patrol

There is no margin for error. You are far from immediate support, working in open ocean conditions that can change quickly, and every piece of equipment, every battery, every shot matters.

For The Island of the Shark: Guardians of Malpelo, the production itself added another layer of challenge. I was essentially a one-woman crew, responsible for topside filming, underwater cinematography, drone work, lighting, and audio. Space on the Silky catamaran was limited, so there was no option to bring a team. That meant constantly shifting roles and making decisions in real time, often in physically demanding conditions.

But the greatest challenge wasn’t technical - it was human and relational. This story is built around Erika López, co-founder and executive director of Biodiversity Conservation Colombia, and her team’s mission to protect Malpelo Island fauna and flora sanctuary from illegal, unreported, and unregulated fishing. Erika has been operating in relative isolation for years, doing the hard, often unseen work of conservation.

Gaining her trust, and the trust of the crew, required time, presence, and respect. I lived aboard the Silky for nearly three months on my first expedition, not just to film, but to listen, to understand, and to let the story reveal itself.



Annie has many talents

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**Danny Fryer (Instructor and Cave Diver)**
Perth, Western Australia

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Annie is a strong supporter of the next generation

Huge school of silky sharks

Green turtle chomping on seagrass

At the same time, we were documenting a very real and ongoing threat. Overfishing remains the greatest danger to sharks globally, and at Malpelo, the team is actively confronting that reality every day. The crew maintains near-constant coverage of the island - 24 hours a day, seven days a week. Their presence has allowed them to recover tens of thousands of metres of illegal fishing line and deter hundreds of vessels from entering protected waters. This is conservation in action, not just policy on paper.

There is also an emotional weight that comes with this work. I first witnessed the power of shark migrations in the Galápagos 25 years ago, and even then, I saw the impacts of human activity - fishing line entangled on a hammerhead’s cephalofoil. Today, the scale is staggering. We are losing an estimated 200 sharks every minute. That reality stays with you when you are filming, when you are editing, and when you are sharing the story.

Ultimately, the difficulty of working in a place like Malpelo is balanced by its purpose. This film is not just about a remote island; it is about amplifying the voices of the people protecting it and helping others understand what is at stake. The ocean remains underrepresented in our education systems and often misrepresented in media. My role as a filmmaker is to help shift that narrative - to show the beauty, the urgency, and the interconnectedness of it all.

Because in the end, conservation is not something happening somewhere else. It requires all of us. ■



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AIRMATIC

Imagine a Caribbean island nation surrounded by dramatic walls, colourful coral reefs and a thriving population of reef sharks. We showcase why you should be tempted by the Turks and Caicos Islands – a true diver's Mecca

Photographs courtesy of Explorer Ventures or as credited

**The Bahamas tend to steal all of the glory when it comes to easily accessible northern Caribbean islands, but there is another island nation which is just a short hop from the eastern seaboard of the United States, and an easy flight from Europe, that deserves your attention – the Turks and Caicos Islands.**

## The Turks and Caicos Islands

Located just 575 miles southeast of Miami, the Turks and Caicos Islands were first populated by the Lucayan or Arawak Indians. Columbus then claimed the islands for Spain in 1492, which then ceded control to the British in 1670. The islands were dependencies of the nearby Bahamas until 1874, when the islands became controlled by the Jamaican government. Most recently, in 1962, the islands became a British Commonwealth Colony, which is what they remain today.

Not surprisingly, the waters surrounding these islands are host to a plethora of marine life, which dwells among the stunning coral gardens, shallow reefs, abyssal walls and in the clear, blue deep water. There is more than 1,000 sq miles of coral reef around the islands. This, in turn, attracts divers, and there are various dive centres and liveaboards providing access for all levels of diver to the delights of the Turks and Caicos Islands.

Explorer Ventures have been plying these waters for decades, and during a week on board the Turks and Caicos Explorer II you can clock up a staggering 27 dives (including night dives), which is an extremely efficient method of filling your logbook!

So what can you expect to see? Well, sharks for one thing. The Turks and Caicos Islands are renowned as a hotspot for Caribbean reef sharks, which can be regularly encountered on many of the wall dives, and some of the reefs – no shark feeding is needed here to get a close encounter. The sharks are curious and will often make close passes – ideal for photographers.

# Turks and Caicos ISLANDS

### Did you know?

The Turks and Caicos Islands offer warm, clear waters, dramatic wall dives and thriving reefs. Around Providenciales and Grand Turk, expect sharks, rays, turtles and seasonal humpback whales, with many sites just minutes from shore.

> “It is known for being a very ‘sharky’ location, with regular sightings of Caribbean reef and nurse sharks, and occasional visits from hammerhead, bull and tiger sharks”

Caribbean reef shark
© Hart Kerbel

Sharks aren't the only pelagic that are attracted to these islands. In the crystal-clear waters you can also see spotted eagle rays, jacks, grouper and turtles, with the occasional sighting of hammerhead sharks, blacktip sharks, not to mention manta rays or dolphins. Given how deep the waters are that surround the Turks and Caicos Islands, you can never-say-never, and you genuinely never know what might appear out of the blue. So keep your eyes peeled.

As well as these showstoppers, you can also find all of the usual Caribbean reef species, such as angelfish, butterflyfish, snapper, chromis, sergeant majors, spotted drums, trunkfish and so on, all living in and around massive gorgonian fans, giant barrel sponges, and a kaleidoscope of soft coral, hard coral and sponge species.

The Turks and Caicos Explorer II departs from and return to South Bank on Providenciales (widely known as simply Provo), with standard itineraries exploring the dive sites around West Caicos, Provo itself, and the infamous French Cay. On full charters, there is the option to conduct special Grand Turk itineraries, which take in Grand Turk, South Caicos, French Cay and/or Salt Cay.

Divers returning from a dive
© Annette Colleary

## West Caicos dive sites

A six-mile-long underwater cliff which drops from a shallow shelf in 12-15m, to well over 2,100m, is home to many of the top sites, which are also protected as part of the West Caicos Marine National Park. Spanish Anchor, also known as Whiteface, sits below steep white cliffs, and has a swim-through that has a 17th century anchor wedged into the reef at 21m, while Highway to Heaven, near the north of the island, has a huge colony of garden eels at 15m, and has numerous coral arches and overhangs.

Driveway has a large sand chute – which gives it the name 'driveway' – that leads directly over a vertical wall, which is patrolled by reef sharks and is covered in coral growth, and Elephant Ear Canyon, as the name suggests, has plenty of elephant ear sponges, some reaching over three metres in diameter.

### Did you know?

The Turks and Caicos Islands have no rivers, relying on rainfall and desalination for water supply. Salt once drove the economy on Grand Turk, and you can still see wild donkeys roaming parts of the islands. Currency is the US dollar.

Prolific marine growth hides the diver
© Larry Townsend

Divers exploring a drop off

Baby octopus
© Hart Kerbel

Nurse shark and stingray
© Peter Lange

> The Turks and Caicos Islands has much to offer divers of all levels, from those newly qualified and building their skills, to more-advanced divers in search of their next thrill

The Turks and Caicos Explorer II is an impressive vessel

## Provo dive sites

As well as being the 'home' of the Turks and Caicos Explorer II, Provo is a top diving location in its own right. Off Grace Bay, which is protected by the Princess Alexandra National Park, there are several sites suitable for newly qualified divers.

Aquarium is known for huge schools of snapper and grunts, as well as several sand chutes running through the coral to the wall at 30m, while Grouper Hole features a deep, sandy grotto with a large coral head in the centre – it was previously used as a location for grouper feeding before the park was formed, and while the practice no longer continues, it is still a prime site to see grouper.

At Northwest Point, divers can explore sites like The Crack, which has a deep crevice dropping from 15m to 30m, often filled with grouper and snapper, while Shark Hotel is a hotspot for Caribbean reef sharks, which can be seen off the top of the wall at 13m, and down to below 30m on the seemingly endless wall.

The dive deck is spacious and well equipped
© Peter Lange

> “Rock and Roll is often used for night dives, and is a good location for lobster and octopus”

Macro photography can produce some really unique shots
© Peter Lange

## French Cay

This small, uninhabited nature sanctuary and protected marine park is located some 15-16 miles south of Provo. Underwater it is acclaimed for its steep walls, topped by vibrant coral outcrops, while topside, prolific birdlife called the small cay home. It is known for being a very ‘sharky’ location, with regular sightings of Caribbean reef and nurse sharks, and occasional visits from hammerhead, bull and tiger sharks. Between January and March, there is even the chance to see humpback whales.

Some of the top dive sites include Double D, where divers can swim between two densely overgrown pinnacles, and G-Spot, that is a dramatic wall decorated with gorgonian sea fans, barrel sponges and elephant ear sponges, and a great location for seeing sharks. With names like these, you can tell a bloke had a hand in naming the sites! Rock and Roll is often used for night dives, and is a good location for lobster and octopus, while Molasses Reef lies near a sheer drop-off, and is another surefire site for sharks and eagle rays.

## Conclusion

The Turks and Caicos Islands has much to offer divers of all levels, from those newly qualified and building their skills, to more-advanced divers in search of their next thrill. A liveaboard is the perfect way to explore a wide selection of dive sites, from coral reefs to steep walls, and you are guaranteed to see plenty of sharks during your week underwater.

The islands are easy to get to from both North America and Europe, the weather is pleasant all year round, and the water is always comfortably warm – isn’t it time you were tempted by the Turks and Caicos Islands? ■

## The Turks and Caicos Explorer II

The 38-metre, 99-ton Turks and Caicos Explorer II has an all-aluminium construction, and was recommissioned in 2005. It is powered by two 500hp John Deere diesel engines, boasts a maximum speed of 14 knots, and has a range of 1,500 nautical miles. It can accommodate 20 passengers in ten staterooms, all with ensuite bathrooms and showers. The boat deck features a large sundeck with lounge chairs, while the main deck is home to the dive deck, and the air-conditioned salon, complete with entertainment centre with TV/DVD. You will never go hungry on an Explorer Ventures liveaboard, with three delicious meals a day, plus in-between dive snacks. Guests also have unlimited soft drinks, tea, coffee and, when the diving day is done, spirits, beer and wine.

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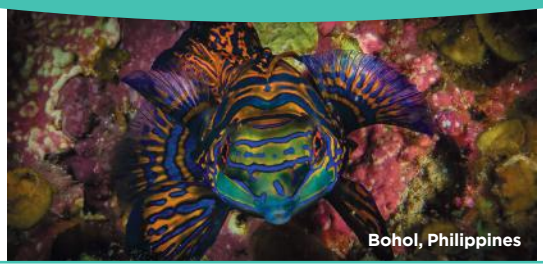
# DIVE ADVENTURES

Palau, Micronesia


Bohol, Philippines

Raja Ampat, Indonesia

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DIVE ADVENTURES

# Mustard's MASTERCLASS

## Alex Mustard discusses why underwater photographers should sometimes leave their scuba kit behind and break out the humble snorkel

Photographs by Alex Mustard

**A couple of issues ago we looked at a lesson that photographers could learn from tech divers. This month we're after inspiration from the other end of the underwater exploration spectrum, the humble snorkel. As scuba-diving photographers, it is easy to slip into the misconception that scuba is always the superior choice for photography. And if we have a full day of diving planned, then that is surely the route to the best images.**

This month I hope to dispel that way of thinking. It is the start of April, and I've already logged my 100th dive of the year, but there have also been times I've skipped dives to snorkel. To convince you I'm going to talk through some of my 2026 images where I've taken the tube, instead.

There are many well-known snorkel trips for photography, such as chasing baitballs, or hoping for encounters with cetaceans, manatees, whale sharks, seals and rays. The aim of this column to remind you to reach for the snorkel, when it is not the headline activity of the trip. A snorkel can get you into environments and photographic opportunities that you simply wouldn't be able to dive. The shallows can often be packed with life, have the best light and give the opportunity to work surface texture, reflections and split-level images into our portfolio. Of course, all dives start and finish at the surface, but that simple J-shaped plastic tube keeps our attention there.

Gear-wise, snorkel photography is usually biased to wide angle. You can shoot macro and fish portraits when snorkelling, but the compromises of either having to hold your breath or being constantly wobbled by the surface, are limitations.

I've taken plenty of macro shots while snorkelling, but at best they are often indistinguishable from scuba shots. If you are looking for new images, then wide angle brings few drawbacks and visually makes more use of the opportunities of the shallows. I usually favour a fisheye, but any wide angle will do. Most of the time, there isn't much need for flash, but that depends on the situation.

My first trip of the year took me to Grand Cayman, a destination famous for clear waters, spectacular vertical reef walls and shallow reef sites cut with caverns and canyons. Lesser known to outsiders is a small bay on the south coast called Spotts, where in chest deep water there is a lush seagrass meadow, home to friendly green turtles, stingrays, octopus and huge school of silvery scads. You can snorkel there all day, but I particularly like the mornings and evenings, when the low angle of the sun adds beautiful light rays to the picture.

This is one of those situations where there is a benefit in using flash. Normally, the shiny flanks of the scads act as perfect camouflage in shallows, so a tickle of flash helps to pop them from the background, especially when shooting against the attractive sunbeams. The turtles don't really need strobes in these depths, but since I have them on the camera, I use them on low power for fill. Patience is the most-powerful ally. Green turtles don't mind you being close or photographing them, but they don't like you approaching them! The trick is to get into range without looking like you are trying. Never swim directly towards a turtle, instead swim parallel, slowly closing the gap, without looking at them too much. Once you are up close, they will stay totally relaxed and let you shoot for as long as you want.

My other trip took me to the amazing Indonesian archipelago of Raja Ampat. Raja has more underwater delights that any other place I know, and the diversity of adventures makes it a must for the snorkel. The world's most-famous jellyfish lake is in Palau, where an enclosed lake of seawater is home to stingless golden jellies. Raja Ampat is made of similar porous limestone islands and has a number of smaller jellyfish lakes. None are on the scale of Palau, but they remain interesting for photography. I don't recommend taking strobes because most jellyfish lakes are murky, the jellies stay right at the surface and they involve a hike to reach, so the lighter the camera the better! There are a few different images to chase here. First is a dense jellyfish bloom, simply find the area with the ▸

While strobes aren't needed in the shallows, they help reveal silvery fish

Raja Ampat's mangroves are ideal for split level images

A heavy tropical downpour adds texture to the classic jellyfish lightbulb shot

most jellies and try and get a frame filler. Time your shots so that you end up with a key jelly as a focal point to give structure to the pattern. The second image is the split level. Jellyfish lakes are usually surrounded by trees and the juxtaposition of jellies and forest create compelling pictures. You can also include the trees through a slice of Snell's window in a fully underwater shot.

The final option is a classic - the jellyfish lightbulb shot. This is an upward composition, framing the jelly in the circle of Snell's window, with the sun behind it. Obscuring the sun with the jelly acts to both make the jelly glow like a bulb, but also makes the rest of the exposure easier to balance. We often take this shot blind, by positioning the camera beneath the jelly. With a fisheye it is easy to get your own head in the photo, so hold the camera out at arm's length. This time, our trip to the jellyfish lake coincided with a tropical downpour. Rather than lament the lack of sun, I embraced it and tried to capture the raindrops in all my images.

Raja Ampat is especially celebrated for its mangrove environments, with thriving corals growing right up to the roots of the trees. This habitat offers excellent conditions for split level photography, but the very shallow water (less than 60cm) makes shooting these images tricky.

The hardest aspect is lifting the camera up, half out of the water, without touching down on the delicate corals. On my last trip, Don Silcock, a regular contributor to Scuba Diver, suggested we bungee some foam yoga blocks beneath our housings, which worked brilliantly to hoist them half in and half out for the shot. Mid-morning and mid-afternoon give the best light, but it is important to wait for a sunny day for the optimum pictures. ■

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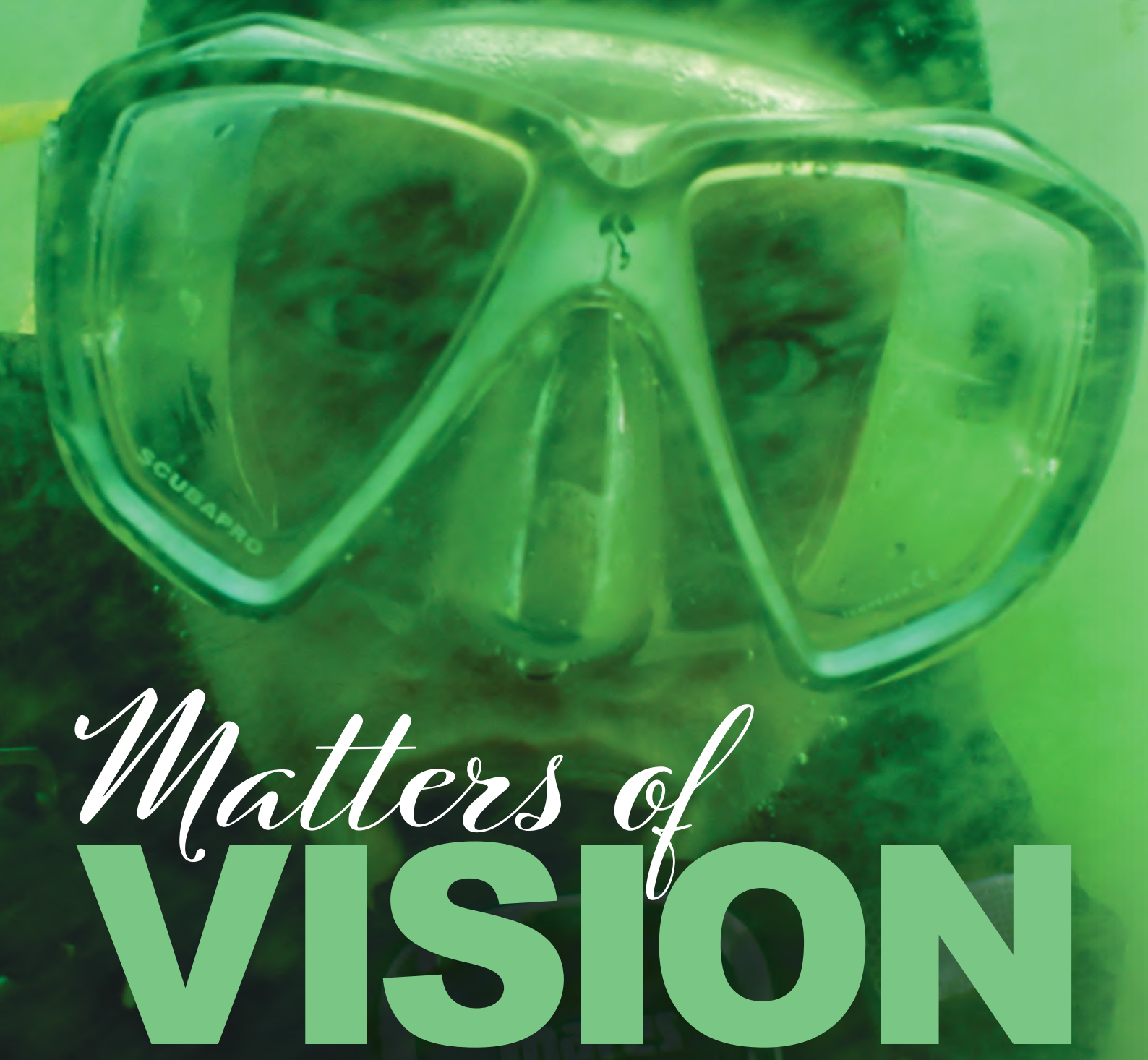


# Matters of VISION

**Diving, to a great extent, is all about what we see when we're underwater. That's what drives us to explore the depths. But sometimes our underwater vision comes into question. Springtime allergies irritate our eyes as well as congest our sinuses. Our underwater vision may require correction beyond that of a mere mask. Other times, the issue is obstructions to our vision, either because our mask fogs up, or due to matter suspended in the water column. And sometimes what we see is unexpected, stunning, or even shocking. So let's take a look at these factors and what we can do to improve our situation.**

Robert N Rossier turns his attentions to sorting out issues in underwater sight

## Alleviating Allergies

It's that time of year again. The landscape is covered with a powdery yellow coating, and itchy eyes and sneezing become part of the daily experience. It might seem like the only way to escape the pollen is to slip beneath the waves. But the very problems we try to avoid can create issues for making that underwater sojourn, and that can raise some important considerations for divers. The first revolves around over-the-counter allergy medication, and determining what is safe and compatible with diving.

For those of us who suffer from seasonal allergies, the temptation is clearly there to use over the counter (OTC) medications to alleviate the symptoms. Typically, that would include antihistamines and decongestants. Antihistamines are medications that suppress the secretion of histamines in the body, which constrict smooth muscle in the bronchial system, and dilate capillaries and the small branches of arteries that lead to them. The effect is a drying out or

clearing of the mouth, nose, and sinuses – which is a good thing. Typical active ingredients for antihistamines include diphenhydramine hydrochloride, triprolidine hydrolochloride and chlorpheniramine maleate, which you may see listed on the label of common allergy medications.

Decongestants are vasoconstrictors, which cause narrowing of the blood vessels, thus providing temporary improvement of airflow in the nasal passages. Typical active ingredients of decongestants include pseudoephedrine hydrochloride and phenylpropanolamine hydrochloride, again listed on the labels.

The problem with both types of medication is that they have negative side effects that can be problematic for divers. According to the medical staff at Divers Alert Network (DAN), antihistamines can cause 'visual disturbances, drowsiness or an undesired sedation or depression – all significant factors that, together or separately, can affect the safety of a dive. Antihistamines can also depress the central nervous system (CNS) and impair a diver's ability to think clearly and react appropriately when the need arises'.

Also, according to DAN sources, decongestants can cause 'a mild CNS stimulation and can also offer numerous side effects such as nervousness, excitability, restlessness, dizziness, weakness and a forceful or rapid heartbeat'.

The bottom line is that the use of these and other OTC medications can impair us during a dive, putting our safety at risk. For more information, contact DAN or consult with your local diving physician.

> "One common cause of poor visibility underwater is a simple matter of fogging of our mask"

### Contact Lens Concerns

Many divers wear contact lenses while diving, and many more who might be tempted to using contact lenses underwater. But some worry about the possibility of causing eye damage, and wonder if such concerns are justified.

While we may not have heard of any cases of eye injuries associated with contacts and diving, as with any aspect of diving, there is always some level of risk involved. However, we can take some simple steps to mitigate the known risks of wearing contacts underwater.

One underlying concern is that of gas exchange and the formation of gas bubbles behind the lens. According to sources at DAN, 'hard and gas permeable lenses have been found to sometimes cause symptoms of eye pain and blurred vision during and after dives in which the diver accumulates a significant inert gas load. These symptoms occur as a result of gas bubbles forming between the cornea and the contact lens'.

Another concern is that of contamination of contact lenses. Depending on where we dive, we might be concerned over microbial hazards in the underwater environment that could contaminate our lenses, causing eye infections and other health concerns.

Again, sources at DAN suggest that the risk of such infections a are low. The predominant risk of infection is due to contaminated water being swallowed or coming into contact with eyes, ears, and open wounds, nothing suggests an increased risk due to the use of contact lenses. DAN does point out that the risk of infection 'increases significantly in warm, brackish waters, in waters proximate to sewage and run-off inlets, at places of animal access, and at populated beaches'.

The point here is that we should carefully consider and avoid areas where microbial hazards may be higher. For anyone concerned about microbial infection, proper cleaning and stowage of equipment – including their contact lenses – is an important step. DAN points out that 'if equipment is not properly cleaned, dried and stored after use, colonies can grow and microbes can reach sufficient numbers to infect users'.

Surprisingly, our efforts to remove salt from our equipment might result in unexpected health risks. Rinse buckets provided on many dive charter vessels are typically shared with the other divers on board, and might tend to spread microbial infections. For contact lenses, follow the manufacturer recommendations for care and disinfection, or better yet, use disposable lenses.

Divers might also be concerned over the potential loss of lenses while diving. This might occur if our mask floods or is accidently knocked or kicked off during a dive. My personal experience is that even in these conditions, soft contacts tend to remain in place. However, that might not be the case for everyone. One precaution we can make is to make certain our buddy knows we wear lenses and have some hand signs at the ready to communicate a vision issue while underwater. Several precautions are recommended for divers who wish to wear contacts while diving:

- Choose only soft lenses for diving (disposable preferred).
- Follow the recommended procedures for storage and disinfection of contact lenses.
- Keep a spare set of lenses with you in case you lose one.
- Stop using your contact lenses if they become damaged or uncomfortable, or if your eyes become painful or irritated.

Be aware that other options are available, including prescription dive masks, that you can use if the contact lens option doesn't meet your personal needs. Check with your eye doctor if you have concerns or need further advice.

### Variable Visibility

One day while diving with a new and unfamiliar buddy in a kelp forest in Monterrey, CA, a 'visibility' issue arose. It was nearing the end of the dive, and we had just signaled our intent to ascend and return to the boat. I was making a slow ascent when I looked over and realized my buddy wasn't moving. His legs were kicking and he was looking up, but he wasn't going anywhere. On closer inspection, I saw that his mask was completely fogged, which I assumed played a pivotal part in his situation. He may have felt like he was headed to the surface, but because he couldn't see anything, he didn't realize he wasn't actually ascending.

One common cause of poor visibility underwater is a simple matter of fogging of our mask. While commercial defogging solutions are readily available, some common household items can help us put a fog-preventing coating on the inside of our face plate. A chunk of raw potato, a dollop of shaving cream, or even a bit of human spit when rubbed vigorously on the face plate and then rinsed can do an amazing job as an anti-fog agent.

Perhaps more difficult to deal with is the variability of underwater visibility. Depending on where we dive, we may find considerable variations in the visibility of the water. Typically this is caused by plankton, algae, and various particulates suspended in the water column. However, an array of factors contribute to the prevailing visibility, and these can change dramatically even in a short time. Wind and wave conditions in particular can cause poor visibility especially in shallower areas as the turbulence kicks up more particulate matter from the bottom.

Let's consider light penetration. To a substantial degree, the amount of light available underwater determines how well we can see. Cloud cover reduces the amount of light reaching the surface. Sea conditions affect the angle at which the sun's rays strike the surface, and how much light is reflected. And the deeper we go, the less light there is due to absorption of the light energy.

Several variables can be assessed to help us forecast the underwater visibility. High seas reduce light and can stir up sediment and silt on the bottom, thus reducing visibility. Heavy rains can result in runoff in coastal areas, which carries more silt, sediment, and particulates into the water. Tidal conditions can also affect the visibility as they change direction and velocity over the tidal cycle. And of course, we can consult local dive centers and divers who may have better knowledge of the prevailing conditions in popular dive sites.

## Visions of Horror

Sometimes the scenes we come upon in the underwater world can be unnerving, or even downright scary, particularly if we're not familiar with some of the local underwater residents. Years ago I made a night shore dive near the marina in Westport, Massachusetts, where just such a situation occurred. Reaching the bottom, we found it crawling with what looked like huge black spiders. Everywhere we shone our dive lights was a carpet of these spooky creatures, boiling over one another in seemingly maniacal madness. At least one diver in the group was aghast and nearly bolted for the surface and the shore.

What we saw on that dive were, in fact, spider crabs, and while they aren't the most-attractive form of sea life, they harbor no evil intent toward divers. The spider crab (*Libinia emarginata*) is not a spider by any means, although its round, spiny carapace and long, skinny legs certainly give it the appearance of one. According to sources at the University of Rhode Island, these scavengers inhabit rocky shores, bays, harbors, eelgrass beds, and pilings where they feed on a variety of algae and detritus. And they aren't just in New England. Another species of spider crab (Loxorhynchus crispatus) haunts the southern California coast, living a similar lifestyle, and likely giving a few divers a ghoulish gaze. While their eyesight is poor, they have sensing organs in their legs that help them find food even in mud and murky waters. Spider crabs are highly tolerant of pollution and can readily survive in waters that are contaminated by oil and low in oxygen.

Another aspect that can make spider crabs frightening is that they aren't exactly a tiny species like our local hermit crabs. Spider crabs can grow to a body size of four inches with claw-to claw lengths of nine inches. When they perceive a threat, they tend to raise their claws, wave them about, and snip them in a menacing manner.

While we may find these creatures unattractive, we should know that they are critical of their own appearance. Spider crabs will attach bits of algae, shells, and seaweed to the fine, sticky hairs covering their bodies in order to camouflage themselves from predators – or perhaps just to improve their personal appearance!

Stumbling upon a writhing mass of spider crabs covering the seabed on a dark night would be enough to freak out many divers, but bear in mind that they are not dangerous and are simply filling their special niche in the underwater world. Often times, once we know what we're looking at, we may find these and other seemingly dangerous critters are actually fun to watch!

Many factors play into our ability to dive safely and see clearly underwater. The more we know about these factors, the better we can be prepared for a good view of the underwater realm. ■

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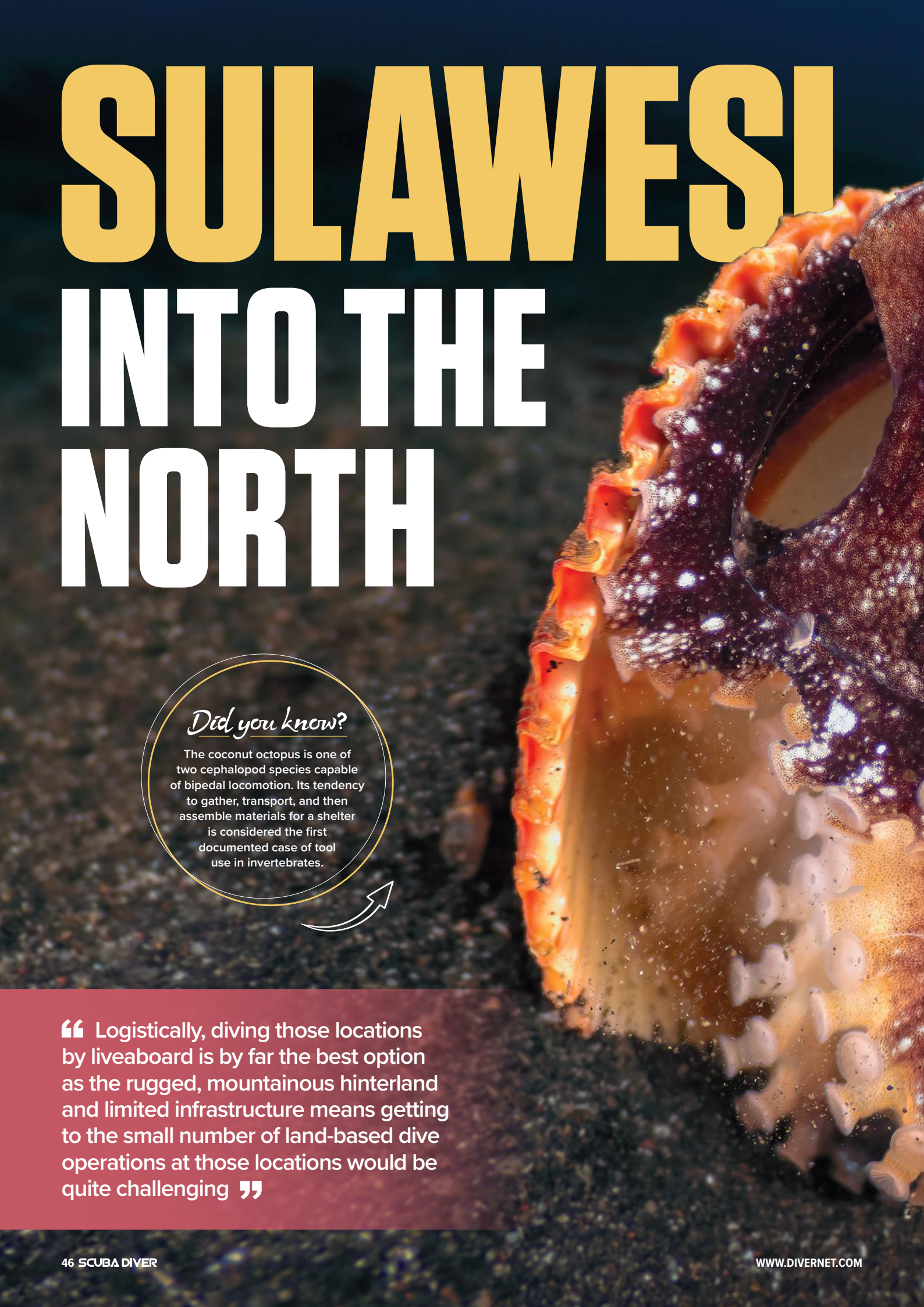


### *Did you know?*

The coconut octopus is one of two cephalopod species capable of bipedal locomotion. Its tendency to gather, transport, and then assemble materials for a shelter is considered the first documented case of tool use in invertebrates.

> “Logistically, diving those locations by liveaboard is by far the best option as the rugged, mountainous hinterland and limited infrastructure means getting to the small number of land-based dive operations at those locations would be quite challenging”

Don Silcock joins the legendary Edi Frommenwiler to explore some of the best dives sites in Northern Sulawesi

Photographs by Don Silcock

**Sulawesi is one of Indonesia's most-geographically complex and distinctive islands, instantly recognizable by the four long and twisting peninsulas that radiate outwards from its mountainous core. Lying between the huge island of Kalimantan (Borneo) to the west and the Maluku Islands to the east, Sulawesi occupies a pivotal position at the intersection of several tectonic plates, a factor that has shaped its dramatic topography, fractured coastlines, and deep surrounding seas.**

Its location along the top of the vast Indonesian archipelago puts it right in the path of the incredible force of nature that is the lifeblood of the Coral Triangle - the Indonesian Throughflow, the largest volume of moving water in the world.

That flow of water is generated by the combination of the Earth's rotation and the vast, but complex, movements of seawater in the western and south-western Pacific Ocean.

The result is higher sea levels to the north-east of Indonesia, which creates the intense flow of water through the archipelago towards the Indian Ocean in the south-west. Rich with nutrients swept up from the deep trenches in the north, those waters also act as nature's distribution system for the eggs and larvae of the archipelago. They first touch land in Raja Ampat, the equally strangely shaped landmass of Halmahera and the northern tip of Sulawesi. Follow the path of the Indonesian Throughflow and you will find the best diving in the archipelago.

## The land of the Bugis

Sulawesi has many stories to tell – from the nine tribes of the Minahasa people in the north to the animist, death-centric Torajans of the central highlands - but perhaps the most intriguing is that of the Bugis, the seafaring people of south Sulawesi.

Much feared and said to be the source of the English saying 'watch out for the boogey man', the Bugis were part-merchant, part-pirate who used their Pinisi boats, built on the beaches of South Sulawesi, to follow the trade winds around the archipelago. It was in the tracks of the Bugis that the liveaboard dive boats have followed and the very first person to do that was the Swiss adventurer Edi Frommenwiler, in his boat the Pindito.

## Exploring underwater Sulawesi

For such a large island sitting right in the path of the Indonesian Throughflow, apart from the well-developed northern tip around Bunaken, Bangka, Gangga and the Lembeh Strait, or the renowned Wakatobi Regency in the far south, very little of Sulawesi is actively dived.

I have been very fortunate to have experienced almost all the main locations in Indonesia many times, but the majority of Sulawesi has remained somewhat of a mystery to me.

I was finally able to scratch that itch in 2025 when, out of the blue, the man himself reached out and asked if I was interested in joining him onboard Pindito on a month-long ▸

exploration trip through Halmahera and then all the way down the east coast of both North and South Sulawesi. Truly an offer not to be refused!

## On board Pindito with 'da man'

I first met Edi (virtually...) during the pandemic when I did a phone interview with him for an article about the pioneers of diving in Indonesia. Then I caught up face to face when I finally returned to Bali, where we both live.

Numerous chats were to follow, usually over a beer (or two...) and I had been on board Pindito a couple of times as Edi showed me around and explained the details and safety features of its German Lloyds approved design.

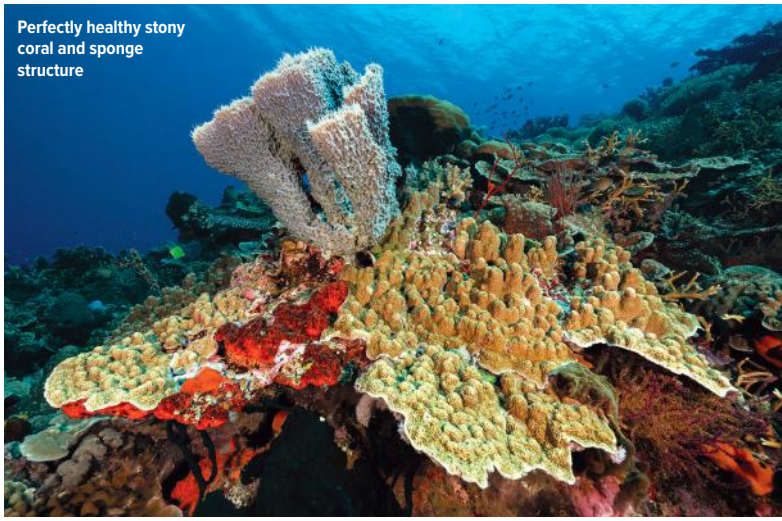
But when I first boarded the boat for the month-long trip, I felt that I had finally realized a long-held ambition and to see Edi organize the crew as they prepared for departure was to watch a man in his element.

## It starts in Lembeh...

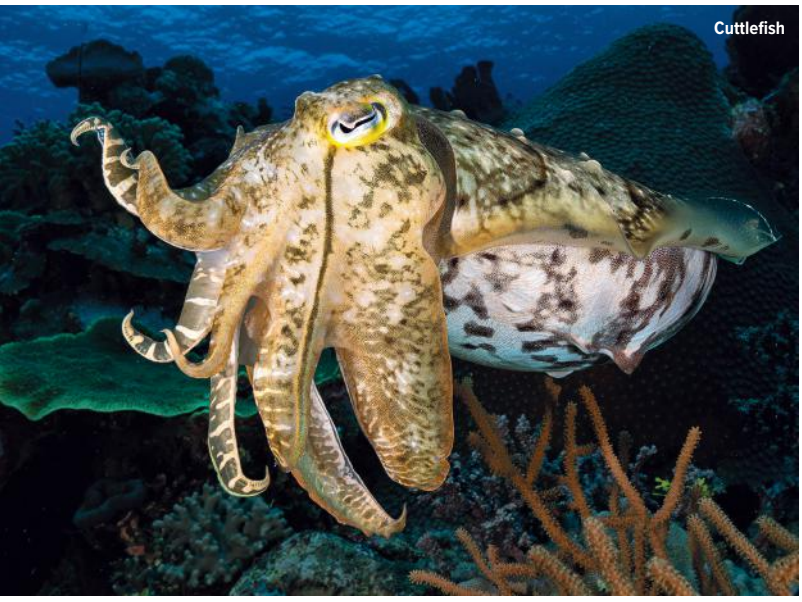
Our exploration of Sulawesi started in the Lembeh Strait with a couple of days diving at the best critter sites. It does not really matter how many times you go to Lembeh, the amazing biodiversity of the black volcanic sand and its capacity to surprise is always a delight.

Frogfish the size of a fingernail on lava sand

Whip corals should always be examined more closely...



Perfectly healthy stony coral and sponge structure



Cuttlefish

Bargibanti pygmy seahorse

Many of Lembeh's critters are true masters of camouflage, expertly mimicking sand, debris, algae, or sponges to evade predators and ambush prey. Finding them is all about slowing down, scanning carefully, and discovering the hidden gems one by one in what is basically an underwater treasure hunt. The two days we spent in Lembeh passed quickly and soon it was time to leave the Strait and head south down the east coast.

## Northern Sulawesi

The island is traditionally divided into several regions, of which North, Central, and South Sulawesi together covers much of its physical and cultural diversity.

The snow-white Pindito stands out from all the other liveaboards in Indonesia

### Did you know?

Deep volcanic cliffs, turtle hotspots, fish-rich and colourful coral reefs, mangroves and the 'aliens' of the world-famous Lembeh Strait make North Sulawesi one of the most-diverse diving areas in Asia.

> "Rich with nutrients swept up from the deep trenches in the north, those waters also act as nature's distribution system for the eggs and larvae of the archipelago"

But from a diving perspective it kind of divides into two, with Northern Sulawesi encompassing the developed areas on the northern tip of the island, and then Gorontolu and the Togean Islands in the Gulf of Tomini, with the Banggai archipelago on the far eastern end of Central Sulawesi.

Logistically, diving those locations by liveaboard is by far the best option as the rugged, mountainous hinterland and limited infrastructure means getting to the small number of land-based dive operations at those locations would be quite challenging.

The whole east coast area of Northern Sulawesi is bounded by the deep waters of the southern basin of the Mollucca Sea - with its monsoonal weather patterns... Edi had planned the trip carefully to be there during the optimal weather, but in those isolated waters it was very reassuring to be on board a well-built boat, with such a seasoned and experienced skipper and crew.

## Wild and interesting

The east coast of Northern Sulawesi is one of Indonesia's most-dramatic and geologically dynamic coastal seascapes, shaped by tectonic activity, volcanic activity, and deep-ocean influences. The eastern shoreline is rugged and irregular, with headlands, small bays, and short stretches of rocky coast broken by river mouths and volcanic foothills which gives it a wild and undeveloped character.

The seafloor topography mirrors this abruptness. Coral reefs frequently begin very close to shore and plunge rapidly into deep water, forming steep reef walls, drop-offs, and slopes that descend hundreds and sometimes thousands of metres.

## Edi and Pindito

Getting to know and becoming friends with Edi Frommenwiler has been one of the highlights of my diving career and I first came across his name more than 25 years ago on a business trip to Indonesia, when I picked up Kal Mueller's Diving Indonesia book at Jakarta Airport. Mueller's account explained how Edi had effectively launched Indonesia's liveaboard diving industry by building the Pindito in 1992 — an audacious project that required equal parts vision, nerve, and stubbornness. What struck me most was that this Swiss outsider had not only managed to secure one of the rare business licenses granted by the then-President Suharto to a foreigner but he had also designed and built a German Lloyds–certified vessel on a beach in South Kalimantan with local 'tukangs' (Pinisi boatbuilders). Universally known as simply 'Edi', he is probably best described as a force of nature — relentless, resourceful, and impossible to ignore.

www.pindito.com

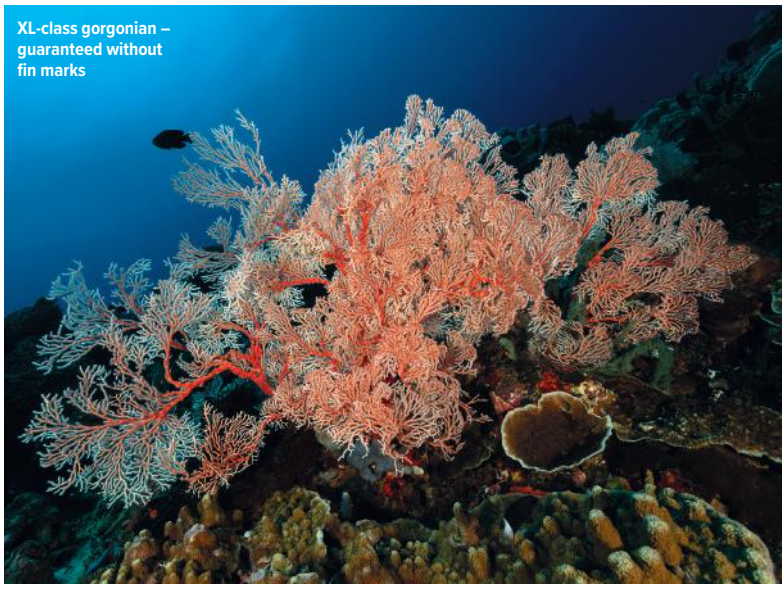
The volcanic origin of Sulawesi's coastline is clearly visible

The nearby deep and nutrient dense waters of the Mollucca Sea, fed by the Indonesian Throughflow, supports and nourishes a rich food chain.

Coral reef structures along the east coast vary considerably. Fringing reefs dominate in many areas, often narrow but biologically dense, while isolated seamounts, submerged ridges, and pinnacles rise from deep water offshore. These features act as current deflectors and biological magnets, concentrating fish life and attracting larger predators. Hard corals thrive on exposed slopes where currents deliver a constant supply of nutrients, while sheltered pockets support soft corals, sponges, and sea fans.

Overall, the east coast of northern Sulawesi is a high-energy marine environment, defined by steep bathymetry, clear oceanic water, and constant interaction between deep-sea processes and coastal ecosystems.

"Hard corals thrive on exposed slopes where currents deliver a constant supply of nutrients, while sheltered pockets support soft corals, sponges, and sea fans"



XL-class gorgonian – guaranteed without fin marks

Deadly beauty: Disturbed blue-ringed octopuses make their rings glow

The corals are healthy

While it lacks the intense colours and intense biological diversity of Raja Ampat, it is a seascape where geology and oceanography combine to create one of the most-compelling and visually striking coastal regions in Indonesia.

## Diving Northern Sulawesi – should you go?

Well, it depends... If you are looking for saunas and massages on a moonlit night, probably not. But if you love being 'out there', exclusivity (we never saw another liveaboard once we left Lembeh) and a deep sense of adventure, then yes – this could be for you!


### Don Silcock

Don is an Australian underwater photographer and SEACAM Ambassador based on the island of Bali in Indonesia and his website has extensive location guides, articles and images on some of the best diving locations in the Indo-Pacific region and "big animal" experiences globally.
www.indopacificimages.com

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Hi, I am Edi and the team at Pindito. For over 30 years we've been cruising through the indonesian archipelago - from the prestine beauty of Raja Ampat or the raw nature of the Banda Sea, the wild life in Komodo and everywhere in between.
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# #ASKMARK

**#AskMark is our scuba diving Q&A section to answer your scuba diving questions.** Have a burning question about buoyancy control, or big dreams of becoming a Divemaster? Mark Newman, a Pro Diver since 2009, is here to answer your questions and share his expert knowledge – no question is too basic or bizarre! **So, gear up, dive in, and let's #AskMark**

## @Espensoreide

**#AskMark: How would you lift and remove old ghost gear by yourself?**

With extreme caution, if at all. Ghost gear is what divers call discarded fishing equipment, such as nets and longlines. Fishing nets and lines are designed to last for long periods in marine environments. They're designed to have strong breaking strengths. Some are made to be hard to see in the water and most importantly, they're designed to catch, tangle and snag on things - divers included. If you find some ghost gear during a dive and you don't have the equipment or expertise to collect it, your best option is to log the location and report it to a local ghost gear dive team who can survey it, collect it and dispose of it properly. By yourself, you run the risk of entanglements, so it's always best to leave it to professionals to remove later.

## @JayPatel101

**#AskMark: When do you use hose protectors?**

Hose protectors are a double-edged sword; they help to prevent the hose from bending in one spot, which can lead to damage. But they can also hold water against the hose in that spot between dives, causing them to rot unless cleaned. If you know that you are fastidious while cleaning your regs, then I have no issue with hose protectors.

When a hose bends, it stretches and compresses the materials inside the hose. And when it bends in the same spot repeatedly, it weakens that area and can lead to failures over time. The main area where this happens is by the metal ferrule fitting, so a strong hose protector will help lengthen the lifespan of your hose, just as long as you clean underneath it between dives.

## @murphygreen8484

**#AskMark: Do you have recommendations on breathing patterns? I'm a big guy, new diver, and still suck down my cylinder faster than anyone in the group.**

Some divers breathe faster than others, and there's zero shame in that. The best advice is usually to stop thinking about your breathing and first look at your weightbelt. New divers often carry too much lead, which leads to more gas in your BCD and more adjusting during the dive. That and streamlining will help to minimise non-essential gas usage. As far as breathing techniques go, low and slow works for most divers. You want to fill your lungs with as much fresh air as possible to flush out as much CO2 from your system as you can. I was always taught to inhale for three seconds and exhale for three seconds, but I don't spend all of my dives counting to three constantly. Just breathe at your normal rate and embrace your natural breathing rate.

EXOTEC

# SMART MOVE

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# Anilao's OCEAN GEMS

**The passage sits within the Coral Triangle, that vast Indo-Pacific region renowned for its marine wealth, yet even within this biodiversity-rich area, the Verde Island Passage stands apart. Scientists have documented over 300 coral species and more than 1,700 species of reef fish within these waters, along with countless invertebrates, pelagics and marine mammals. The unique combination of strong currents, nutrient upwelling and varied habitats creates an environment where marine life doesn't just survive - it flourishes spectacularly.**

This concentration of species isn't merely a curiosity for marine biologists. The passage functions as a critical larval highway, with its powerful currents dispersing marine life throughout the wider region. What happens here ripples outward across the entire Coral Triangle ecosystem.

## Gateway Destinations Across the Passage

The Verde Island Passage spans approximately 1.14 million hectares between Luzon and Mindoro, and several key locations offer divers access to its extraordinary waters. Each destination provides a different perspective on this remarkable ecosystem.

Tucked between the islands of Luzon and Mindoro in the Philippines lies a narrow strait that harbours one of the planet's most-extraordinary marine ecosystems. The Verde Island Passage, connecting the South China Sea with the Siloam Sea, represents a confluence of oceanographic forces that have created conditions unlike anywhere else on Earth, as Sol Foo explains

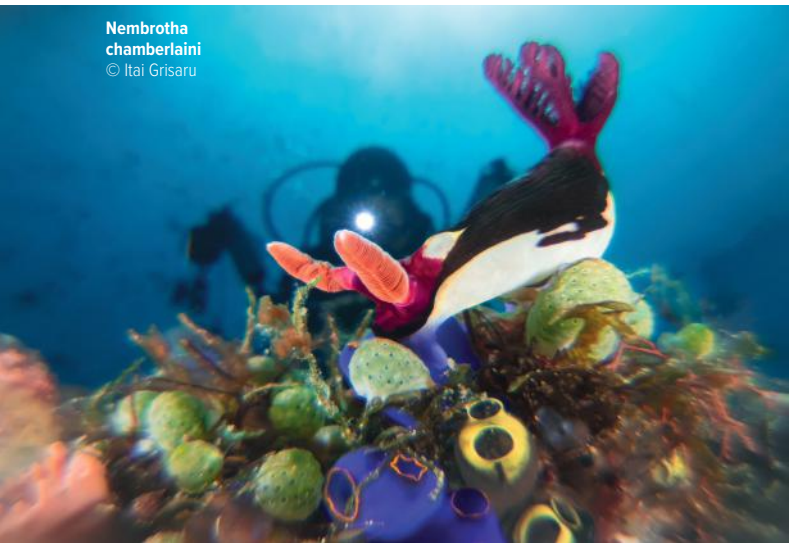
Photographs as credited

> “Steep walls draped in soft corals plunge into the blue, while nearby muck sites harbour some of the ocean’s most bizarre and photogenic creatures”

© Itai Grisaru

Coral crab
© Aaron Wong

Huge barrel sponge



Nembrotha chamberlaini
© Itai Grisaru

Rhinopias
© Jonas Heeb

> “Whether you’re pointing a macro lens at a hairy frogfish or simply drifting along a wall watching anthias shimmer in the current, Anilao provides that increasingly precious commodity - a genuine sense of underwater wonder”

Puerto Galera is on the northern coast of Oriental Mindoro and serves as another primary gateway to the passage. This established dive resort town offers over 30 dive sites of its own, while providing convenient boat access to Verde Island itself, the small volcanic island that sits at the heart of the strait. Puerto Galera’s combination of local diving and day trip options to Verde Island makes it a versatile base for exploring the region.

Verde Island, positioned in the centre of the passage, represents diving at its most concentrated. Day trips from either Anilao or Puerto Galera (approximately one hour by boat from either location) bring divers to legendary sites like San Agapito and The Drop-Off - a dramatic vertical reef that plunges beyond 70m.

Strong currents sweep nutrients past this underwater precipice, attracting massive schools of anthias, jacks, tuna and mackerel. The appropriately named Washing Machine dive site offers experienced divers an adrenaline-charged encounter with swirling multi-directional currents through a series of interconnected canyons and swim-throughs.

Beyond the well-known hubs, the passage harbours lesser-explored diving areas that appeal to adventurous divers seeking uncrowded sites. The waters around Calapan on Mindoro’s eastern coast, including locations like the Tatlong Pulo Archipelago, Harka Piloto and Anaganahao Island, remain relatively undiscovered. These sites offer the same rich biodiversity as their more-famous neighbours but with an added sense of exclusivity and tranquillity.

Diving in the Calapan area reveals a macro enthusiast’s dream, with gentle slopes ranging from 5m to 22m, transitioning from reef to sandy areas. The underwater landscape features boulder corals, expansive sea fans and whip corals cascading over coral heads, while soft corals blanket the sandy zones. Patient observers regularly encounter an impressive array of nudibranchs, flatworms, many species of shrimp and whip gobies. The reefs also host healthy populations of clownfish, angelfish and parrotfish, with turtles making regular appearances. Beyond its natural wonders, the Verde Island Passage holds fascinating historical significance. In 1620, the Spanish Manila galleon Nuestra Señora de la Vida was unable to navigate the treacherous currents and eddies near Verde Island, and ran aground on the rocky southwest coast of the island.

Over the centuries, the wreck site has yielded thousands of artefacts through archaeological investigations - ceramic fragments, storage jars, weaponry, religious items, navigational instruments, precious metals, coins, cannons and anchors. The wreck remains where it fell on Verde Island’s southwest coast, a submerged monument to the maritime history that has defined this passage for centuries.

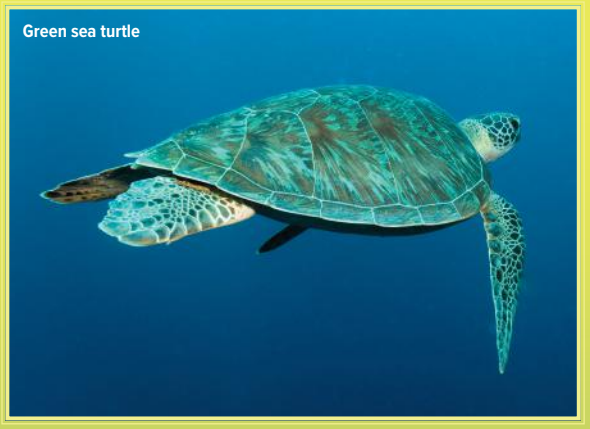
## Anilao: Where Diving History Meets Marine Splendour

On the northern shores of the Verde Island Passage, the coastal village of Anilao in Mabini, Batangas, has earned its place in Philippine diving folklore. Often credited as the birthplace of scuba diving in the Philippines, Anilao transformed from a quiet fishing village into a world-class dive destination over the past several decades.

The appeal is immediately obvious to anyone who slips beneath the surface. Anilao's dive sites showcase the full spectrum of what makes the Verde Island Passage remarkable. Steep walls draped in soft corals plunge into the blue, while nearby muck sites harbour some of the ocean's most bizarre and photogenic creatures. Healthy hard coral gardens teem with reef fish, and several sites offer the possibility of encountering larger pelagics drawn by the nutrient-rich currents.

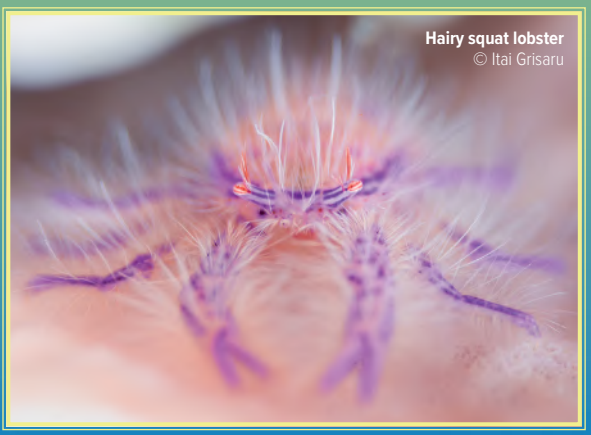
What truly distinguishes Anilao in the diving world is its reputation as a macro photographer's paradise. The patient observer here might encounter ornate ghost pipefish swaying among crinoids, flamboyant cuttlefish pulsing with hypnotic colour patterns, or the legendary blue-ringed octopus. Frogfish of every imaginable hue and pattern blend impossibly well with their surroundings, while nudibranchs - sea slugs in psychedelic colours - adorn nearly every surface. Eagle-eyed dive guides regularly spot pygmy seahorses, those thumbnail-sized masters of camouflage that grip gorgonian corals with their prehensile tails. Yet Anilao isn't exclusively a macro destination.

Sites like Cathedral Rock and Mainit offer dramatic topography and schooling fish, while seasonal visitors like thresher sharks and whale sharks occasionally make appearances, reminding divers of the passage's connection to the open ocean.



Green sea turtle

Paper nautilus
© Itai Grisaru



Hairy squat lobster
© Itai Grisaru

### Did you know?

**Anilao, located in Batangas, Philippines, is a world-renowned premier muck-diving and macro photography destination, often considered the 'nudi capital' of the world with over 600 species.**

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## Accessibility and Infrastructure

Part of Anilao's enduring popularity stems from its convenience. Located just 130km south of Manila, the area is reachable by a two- to three-hour drive from the capital. This accessibility has fostered a robust diving infrastructure, with numerous dive resorts, operators and facilities catering to everyone from beginners taking their first breaths underwater to veteran underwater photographers hunting rare critters.

The dive season runs year-round, though conditions are typically calmest from November through May. Water temperatures hover between 26-29°C, making diving comfortable with a 3mm wetsuit. Visibility varies from ten to 30 metres depending on conditions and location, with the clearest water generally found from March through May.

## Solitude Acacia: Boutique Diving at Its Finest

Among Anilao's dive resorts, Solitude Acacia Resort has carved out a distinctive niche for divers seeking a more-intimate, upscale experience. The property embodies the philosophy of its parent brand, Solitude World, which operates dive resorts and liveaboards in some of Asia's most-coveted underwater destinations. Solitude Acacia's approach prioritises small group diving with experienced guides who possess an encyclopaedic knowledge of the local marine life. The resort's commitment to personalised service means dive groups are kept deliberately small, allowing for more focused critter-hunting and ensuring photographers aren't jostling for position on the reef.

The property itself balances comfort with environmental consciousness, offering well-appointed accommodations that take advantage of Anilao's coastal setting. Between dives, guests can relax in the pool, enjoy locally-inspired cuisine, or simply absorb the coastal atmosphere that has drawn divers to this corner of Batangas for generations.

The pristine resort

Briefing at the dive centre

The inviting pool

In the restaurant

The rooms are airy and spacious

For photographers, Solitude Acacia provides dedicated camera facilities including rinse stations, charging areas and workspaces - essential amenities for anyone carrying serious camera equipment into the Verde Island Passage's rich waters. The dive guides understand the needs of photographers, from finding rare subjects to providing time for the perfect shot.

## Conservation in Focus

The diving community in Anilao has increasingly recognised its role as steward of these remarkable reefs. Local operators, including Solitude Acacia Resort, participate in marine conservation initiatives, from reef monitoring programmes to community education efforts. The challenge is significant - the Verde Island Passage faces pressures from coastal development, overfishing and heavy maritime traffic - but the diving industry has become an important voice advocating for protection.

For visiting divers, the experience of Anilao offers something increasingly rare - a chance to witness marine biodiversity at a scale and concentration that seems almost excessive, as if nature were showing off. Every dive reveals layers of life, from the microscopic to the majestic, all interconnected in the complex web that makes the Verde Island Passage so vital to the wider ocean.

Whether you're pointing a macro lens at a hairy frogfish or simply drifting along a wall watching anthias shimmer in the current, Anilao provides that increasingly precious commodity - a genuine sense of underwater wonder. And with operations like Solitude Acacia ensuring sustainable, quality diving experiences, this corner of the Philippines looks set to inspire divers for generations to come. ■

Thorny seahorse

Coleman shrimp
© Itai Grisaru

The colourful reefs are spellbinding

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# UNDERSTANDING DAN'S ACCIDENT DATA

Claudio Di Manao delves into DAN's Annual Report, which reveals how diver error, equipment issues, and health oversights contribute to accidents, while highlighting surprising data on gender-based injury risks, and the importance of a stronger safety culture

**Every diving accident affects us directly. It reminds us that our marvellous activity requires constant awareness and correct information. In scrolling many of the cases examined by the DAN Annual Report, it stands out immediately that the cause of many accidents is oversight, carelessness, errors in judgement, failure on checking equipment and one's own health conditions, as well as the consumption of substances, including drugs and medications that are incompatible with diving. I was asked to describe my reactions as a diver in reading the report. Here they are:**

## The peril's perception

While writing this article, I came across a bizarre unit of measurement from other sources: the Micromort. This is a unit of risk that indicates the one-in-a-million probability of death in various human activities, including getting out of bed or walking for 17km. At first glance it could look like a joke. Instead, it is a concept introduced in 1980 by a professor at Stanford University: Ronald A. Howard. Micromort values can vary within the same activity by country and by different areas of data collection.

According to two surveys carried out by DAN and BSAC on their members, in 2010 diving exposed DAN and BSAC divers to a risk of 5 Micromort per dive, or five fatalities per million performed dives. According to the United States Parachute Association, the fatality per million performed jumps (excluding BASE jumping) is nine. But it would be enough to travel 1,000km by motorbike or 170km on foot to accumulate ten micromort. For every attempt to ascend the Matterhorn, a mountaineer accumulates a good 2,840 chances to die per million.

If we take this bizarre statistical unit of measurement as an axe that falls haphazardly on five divers (strictly DAN or BSAC divers in this case) every million dives performed, or on nine American parachutists, we are barking up to the wrong tree. Most importantly, these numbers help to adjust our perception of comparative danger in human activities and, if you like, to break down resistance and prejudices. Like, for example, with vaccines.

The DAN Annual Report tells us that the unpredictable, or unknown event matters on an infinitesimal portion of accidents, especially those with a fatal outcome. It tells us that the diving community, which has long since overcome any prejudice towards the diving activity, probably lacks the most relevant asset: a solid diving culture.

## The human factor

Searching the details of diving incidents is not pleasant at all. There are a couple of incidents in the report that are heartbreaking, real tragedies on which you suspend all judgement because sadness takes over. If those divers had been better informed or better trained, would they have acted in the same way? Would they have taken the same risks? And here concepts like Micromort clash with worlds made of rules, standards and procedures. The likelihood of an accident is not to be compared to an exaction, nor is it a random pick. Nor is it a lottery.

Accidents are decreasing by numbers, and this is true; according to the report in 2018 they dropped significantly compared to the average of the previous decade, but even these numbers say little. It is sad to read that there has been another casualty from a well-known old problem: that of the apparent compatibility between metric and imperial tanks and tank valves. Prior to assembling any valve one should check carefully the technical specifications. In the case of a mishap the tank valve could skyrocket as a small-calibre cannon bullet. Then I read about aluminium oxide powder. There was one case where the whitish powder even got into the lungs of a diver, triggering pneumonia. An event that is difficult to explain except by the formation of a kind of mysterious aerosol inside the cylinder. Something in any case quite easy to avoid by regularly inspecting and cleaning the cylinders.

Unfortunately, accidents with oxygen on the surface continue. Photographs of burns should be a strong deterrent. Burns, even when they do not endanger the victim's vital parameters, are among the most-painful injuries of all and among the most-complicated injuries to treat. Nothing new, unfortunately, on the compressor room front. High-pressure hoses continue to whip the compressor guys. 200+ or even 300 Kg/cm2 are not forces to mess with.

The map of accident frequency corresponds to the map of divers' favourite destinations

It is not a punishment: a road travelled by one million vehicles would certainly count more accidents than a road with similar conditions where just ten thousand vehicles pass. The number of accidents tracked by DAN, and the origin of the calls listed by country, depict us the destinations most dived by American and Canadian divers, European divers, Australian divers, etc. respectively. Strict controls and good judgement (it applies to drivers and divers) can certainly make the difference but, despite the variables, the map drawn by DAN matches with the most-popular diving destinations one quite well.

No diver would be surprised by reading that Florida, California, Hawaii and Mexico top the list of destinations where most accidents occur to American divers. Italy, indeed, is surprising. The number of calls for assistance to the DAN hotline from Italy is a bit less calls for assistance to the DAN hotline from Thailand, which is just ahead of Indonesia, then Egypt, then Malta and finally the Maldives, the last two being among the most-popular destinations for European divers, both ranking at the bottom in terms of the number of assistance calls. Avoiding easy social network judgments, a proper answer as to why these numbers are the way they are, requires more data, and of course, answers always lead to more questions.

## Are female divers more at risk than males?

According to the statistics of non-fatal accidents, barotrauma and decompression sickness, with their various symptoms, are on top of the list. About DCS cases: the kind of DCS that involves neurological symptoms is unfortunately the most frequent. Reading through the cases examined by DAN, however, a strange number arises. In the 16 cases in which the sex of the victim is specified, seven cases concern women. Also, among women most of the cases reported involved cutaneous DCS. This number sounds strange because we know that the percentage of male divers is much higher than that of women.

Going further with the statistics for emergency evacuation requests, I again notice seemingly incongruous numbers: in the 30-69 age group, the number of women seems far too high while in the 30-39 and 50-59 age groups the number of females exceeds that of males. The impression is that, generally, female divers suffer almost as many accidents as male divers, while we know that women are, in percentage terms, a minority.

Perhaps I am off track, but even if personal observations have no scientific value, I cannot help but think of so many undeserved DCSs among female colleagues. Cannot help but think of a study presented almost 20 years ago at a conference in Sharm el Sheikh. It was a study conducted on mice. According to the study's results there was a correlation between high levels of testosterone production and low incidence of DCS. Forgive me for not being able to track down the study: the portal I wrote the article for, and the email I had used to send it to, no longer exist.

However, digging into the most-recent scientific studies I noticed that the debate on why women appear to get bent more frequently is still alive and well. Regarding testosterone, well, I am convinced that an excess does not protect at all from a certain kind of accident: the kind that starts in the diver's head. Yes, we do get some answers from the DAN Annual report, but answers always trigger more questions. That's science, baby. ■


## About the author

DAN Member since 1997, Claudio Di Manao is a PADI and IANTD diving instructor. He's the author of a series of books and novels about diving, including Shamandura Generation, an exhilarating portrait of Sharm el Sheikh's diving community. He collaborates with magazines, radios and newspapers, talking and writing about diving safety, marine life and travels.

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# Ghosts of the RISING SUN

## PHOTOGRAPHING TRUK LAGOON

**Located deep in the remote heart of the south-west Pacific lies what is considered by many to be the ultimate wreck diving destination in the world - Truk Lagoon. Resting at the bottom of this vast deep blue expanse of water is the world's greatest underwater museum of 20th-century naval warfare. To the modern traveller, the Chuuk State of Micronesia appears as a tranquil tropical paradise - a ring of lush scenic islands surrounding a vast and protected lagoon.**

But beneath the surface of that lagoon lies a silent, submerged fleet that serves as a haunting monument to Operation Hailstone - the 1944 American aircraft carrier-based strike that crippled the Imperial Japanese Navy.

For the underwater photographer, Truk Lagoon (as it was known during World War Two) is more than a dive destination - it is almost a pilgrimage to a place where the lines between history, tragedy, and art blur into a singular, visceral experience.

Here, the Ghost Fleet offers a visual narrative of a bygone era, preserved in a state of slow but sure decay that is as beautiful as it is sobering.

### The historical canvas: Operation Hailstone

To photograph Truk is to try and document the aftermath of a pivotal moment in history. In 1944, Truk Lagoon was Japan's most-formidable stronghold in the Pacific – often called the Gibraltar of the Pacific - and served as the primary forward base for the Japanese Combined Fleet.

Then, on 17 February 1944, the United States launched a massive two-day carrier-based air assault on the lagoon and, by the time the smoke cleared, over 50 ships had been sent to the seafloor, along with hundreds of aircraft. Those vessels were not stripped of their contents or scuttled intentionally; they went down 'live' and fully loaded with the material of war. Today, they remain largely intact, creating a three-dimensional battlefield that is frozen in time.

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Scuba Diver's Senior Travel Editor Don Silcock delves into the challenges of shooting the colourful wrecks that lie on the bottom of Truk Lagoon

Photographs by Don Silcock

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## The aesthetic of decay

The primary draw for underwater photographers in Truk Lagoon is the unique juxtaposition of mechanical rigidity and organic chaos. Over eight decades, the harsh edges of steel hulls and anti-aircraft guns have been softened by the relentless growth of the Pacific's eco-systems. The wrecks have become vibrant artificial reefs that are encrusted in hard and soft corals, sponges, anemones, and massive sea fans - providing a stunning colour palette that contrasts sharply with the monochromatic tones of the wreckage.

Because many of the wrecks sit in the recreational depth range (between 15m and 40m), photographers can use the interplay of natural light filtering through the clear lagoon waters and the deep, atmospheric shadows found within the ship's holds. Perhaps the most-profound element of that aesthetic is the presence of everyday artefacts - sake bottles, porcelain dishes, gas masks, and even the remains of the fallen - adds a layer of poignant intimacy that distinguishes Truk from almost any other wreck diving site in the world.

## The challenges and opportunities of the Ghost Fleet

Photographing these wrecks successfully requires a delicate balance of technical skill and artistic vision combined with the ability to stay safe and in control. The scale of the ships, such as the Heian Maru (at 155 metres long) or the Shinkoku Maru, demands every wide-angle underwater photography skill you have and... some you may not yet possess!

### Mastering the scale of the scene

Capturing the sheer enormity of a large cargo ship underwater is a daunting task. The visibility in the lagoon, while often excellent, can never be enough to capture an entire ship in a single frame. Ultra-wide or fisheye lenses are essential to get close enough to the subject and maintain clarity while still conveying the gargantuan proportions of the wreckage.

The Fujikawa Maru is adorned is colourful growth

Divers receiving a briefing onboard Taka

### The light: artificial and ambient...

The sheer size of most of the wrecks mean that it is simply impossible to light them using strobe as they are just too big – which leaves two options. Capturing the size and shape of the wrecks means opting for ambient light and a careful exposure to capture as much detail in the shadows, without blowing out the highlights in the brighter areas. Focused postprocessing in Photoshop allows those details to be enhanced and (to a degree...) some colour to be restored and produce an image that illustrates the state of the wreck and its environment.

Then, secondly, strobes can be used to illuminate key elements of the wreck with ambient light adjusted to show the overall setting. That technique is similar in principle to how you would capture a reef scene, but the difference is the amount of 'real estate' included in the background.

Getting that mix of artificial and ambient light correct is the hardest part of those two options of photographing the wrecks of Truk Lagoon.

### Penetration into the wrecks

The engine rooms are the hearts of the Ghost Fleet and their mechanical equipment, gauge and fuel control panels are incredibly photogenic - but they reside in total darkness.

There are two main ways to approach that challenge, with the more-straightforward option being the use of strobes to isolate and illuminate those elements. Or use strobes combined with strong video lights positioned strategically to provide side and back lighting and add some three-dimensionality. This is much more complicated and time-consuming, but the results can be stunning.

A third option is mounting the camera and housing on a tripod and using a powerful video light to 'paint' light on to the equipment in the engine rooms, but that is very challenging technically and logistically and (currently...) way beyond my personal capability!

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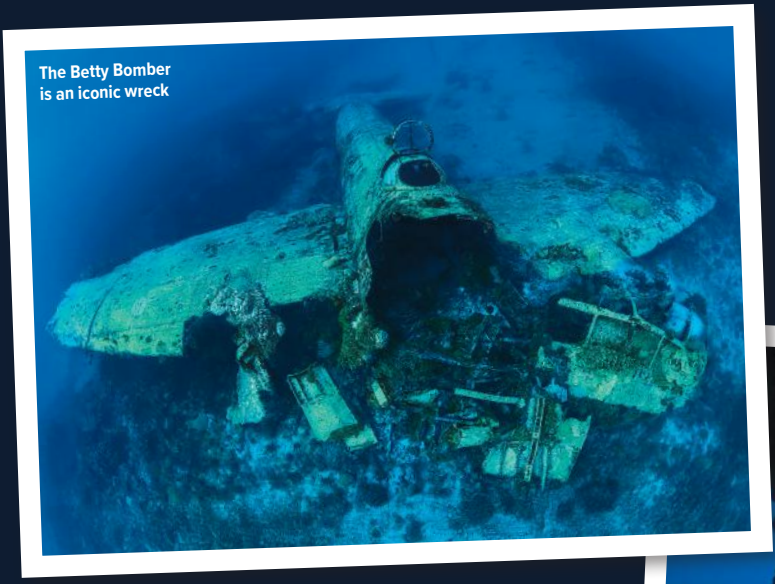
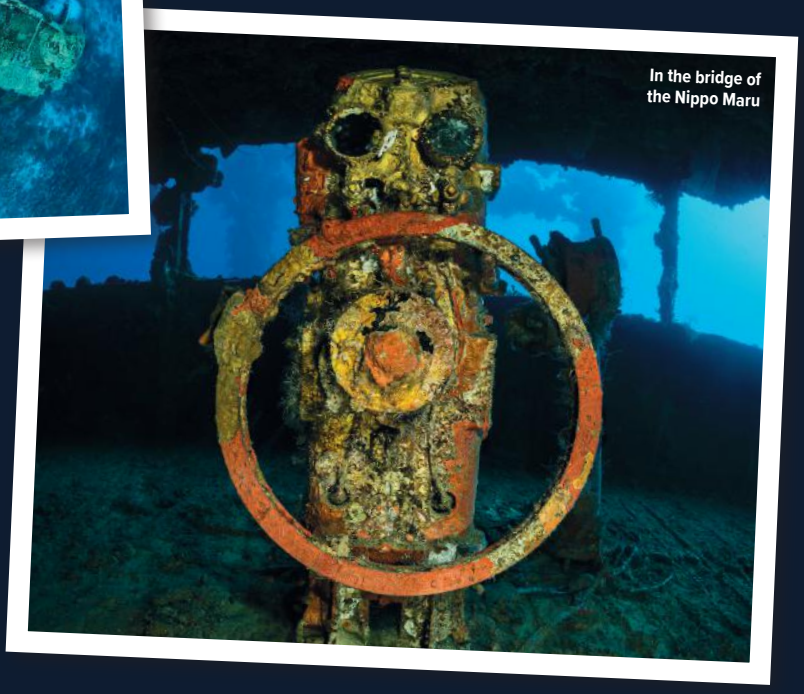

The Betty Bomber is an iconic wreck

> “The engine rooms are the hearts of the Ghost Fleet and their mechanical equipment, gauge and fuel control panels are incredibly photogenic - but they reside in total darkness”


In the bridge of the Nippo Maru

## Recreational or technical?

Because of the depths of the majority of the wrecks in Truk Lagoon, it is possible to dive most of them recreationally – with a single back-mounted cylinder and no decompression.

And, if your objective is to simply experience the wrecks and maybe capture a few images, or some video footage, then the multiple dives possible diving recreationally make it a good choice.

But... if your objective is stay longer on the wrecks, explore them more fully and do some of the advanced penetration possible on many of them, then technical diving is the way to go!

## Open circuit or CCR?

When I arranged my trips to Truk Lagoon my firm intention was to use my new rebreather. But it was not to be as I was unable (long story...) to get the hours on the unit I felt were necessary to be truly match fit and I had to accept that reality. So, for my three back-to-back trips I dived open-circuit with two sidemount cylinders of air and either a single 50% mix of oxygen for decompression or, on the deeper dives, an additional 90% mix of oxygen for the shallow extended decompression.

Human remains found in the engine room of Yamagiri Maru

As such it was the correct decision and I was able to dive extensively on many of the best wrecks of Truk Lagoon, but two things became very clear over the nearly one month I was there.

### Air and nitrogen narcosis

A significant percentage of the very best parts of the wrecks are near or beyond recreational dive limits and, even diving technically, you are still breathing air at those depths. Which means during the most challenging parts of those dives you will be impacted by nitrogen narcosis.

Trying to capture images at depth, or inside a wreck, while ‘narked’ is simply not a logical thing to do!

### Less deco, better images and safer diving

Because I was diving technically, I was often grouped with divers on rebreathers and was impressed at how much longer those divers could stay at depth and yet incur similar decompression obligations to mine. Plus, nitrogen narcosis is not an issue with a CCR so the time they spent at depth was much safer and more productive than mine.

All of which convinced me that my next trip to Truk Lagoon will be with a rebreather!

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Diver checking out spare submarine periscopes on the Heian Maru

> "Photographing these wrecks successfully requires a delicate balance of technical skill and artistic vision combined with the ability to stay safe and in control"

## How to dive Truk Lagoon

Tucked away, as it is in the south-west of the Pacific Ocean, any journey to Truk Lagoon will have its complications and coming from Sydney meant that I had to almost overfly it as I made my way to Tokyo, where I overnighted.

Then I headed south again to Guam to catch the United Airlines island hopper to Truk. Those complications made me decide that if I was going to go, I would stay in Truk as long as I could, which is effectively 30 days.

I eventually decided on two liveaboard trips on the Pacific Master (aka Taka) either side of a week with one of the two land-based dive resorts – here is what I learned from all that:

### Liveaboard is the best option...

I was familiar with the Pacific Master from my trip to Bikini Atoll in 2024 and knew that it was well equipped and organized for deep technical diving – plus when I first got on board several of the crew already knew me.

The big advantage of a liveaboard at Truk is that it can moor directly on the wreck which means that the return to the mooring line and then the deco bar at the stern is very straightforward and safe. Whereas diving deep with extended decompression from the small boats used by the resorts made me feel distinctly vulnerable!

### The guides are the key!

My guide for most of my dives from the Pacific Master was Tripler Marew, a 40-year-old Chuukese who has been diving the wrecks for 22 years and literally knows them inside out! Before each dive Tripler would explain the options, then we would discuss and agree on the plan for the dive.

I learned that I could follow him around the wrecks and into the dark recesses of the engine rooms, accommodation sections and deep into the holds with complete confidence - which was very reassuring and productive!

Whereas the guides from the resort tended to stay above the wreck to avoid incurring decompression obligations and leave most of the exploration to the divers...

## Photographing Truk Lagoon – in summary

Photographing Truk Lagoon was something I have wanted to do for a very long time but had always hesitated over as I was not convinced I was at the right level of diving proficiency to dive it to the full.

My technical dive training changed that and overall, it was a transformative experience that has made me determined to return with a rebreather and the additional underwater photography skill and equipment to take my images of these Japanese ghosts of the Pacific to the next level! ■

The wreck of the San Francisco Maru rests perfectly upright

**Don Silcock**

Don is an Australian underwater photographer based on the island of Bali in Indonesia and his website has extensive location guides, articles and images on some of the best diving locations in the Indo-Pacific region and 'big animal' experiences globally.
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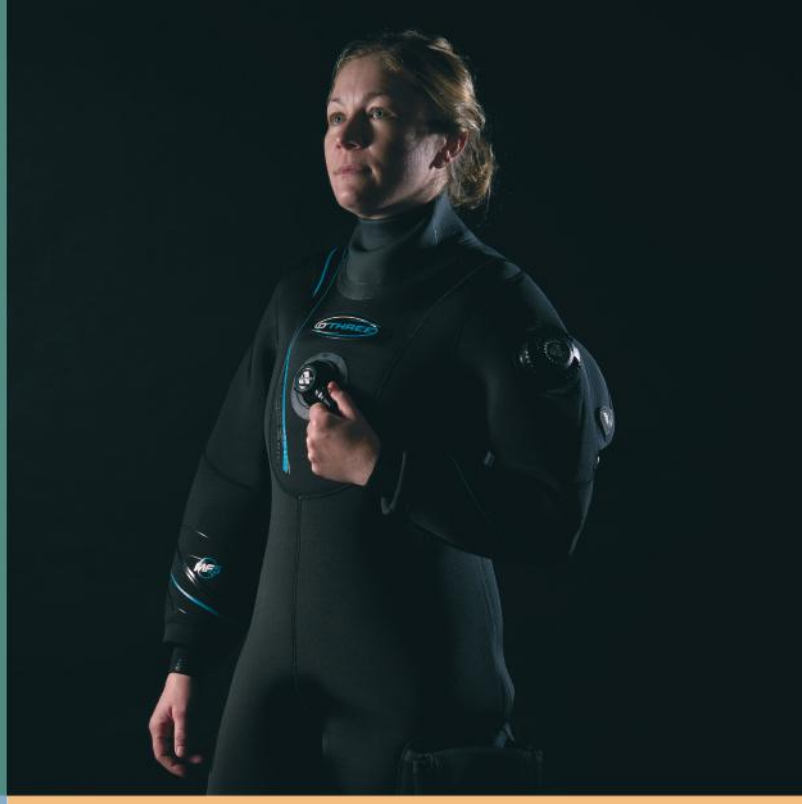

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## CRESSI SUB – CELEBRATING 80 YEARS WITH SPECIAL ANNIVERSARY LINE

Cressi Sub is the oldest diving equipment manufacturing company in the world, and as it celebrates an incredible 80 years in existence, it has released a line of colourful anniversary gear which certainly stands out from the crowd.

Brothers Egidio and Nanni Cressi started to handcraft the first masks and spearfishing guns way back in 1938, representing the humble origins of Cressi Sub. In 1943, the first 'Cressi' mask, the Sirena, was hand-crafted, and remained in the catalogue, with various updates, for more than 30 years. It wasn't until 1946, though, that the Cressi company was officially founded in Genova, Italy.

In 1952, Cressi released the Pinocchio mask, the first to offer the ability to equalise – a major innovation in the 1950s. Regarded as the world's most-famous and sold mask, it is still included in the catalogue! The Rondine fins made their first appearance in 1953, and have been much-copied over the years ever since. In 1965, Cressi opened one of the first workshops specialising in producing optical masks, meaning though with visual defects could now have full enjoyment underwater. The year 1965 saw the Polaris 4 Professional regulator introduced to the line-up. This two-stage unit for the ARA, the air rebreather, was equipped with a piston first stage and a chromed brass second stage. This became a huge success due to its robust build quality and minimal need for maintenance.

In 1970, the Equi-vest made its debut, a futuristic jacket that attached to the cylinder and draw air directly from the first stage. With its arrival, Cressi Sub became the first manufacturer to release what ended up being the first incarnation of the modern BCD.

The Rondine Long fins also appeared in 1970, and these rubber fins enabled Jacques Mayol to go on to achieve his astonishing freediving records.

In 1979, the Rondine Gara fin made its first appearance, featuring a reinforced nylon blade. Decades later, the line started with the Gara is still going strong and is popular with freedivers and spearfishers the world over. By 1990, Cressi products were distributed in over 90 countries worldwide. In 2000, the Cressi Big Eyes mask was a world first, featuring raked lenses with an upside-down teardrop shape, an innovative form that gives the diver a complete view of all of their equipment. Showcasing how far ahead Cressi were in their design department, this mask became one of the most-widely copied and imitated masks in the world, and its legacy lives on in virtually every mask you see today.

In 2011, the Leonardo dive computer was launched, the first of the line of products designed in-house by Cressi Elettronica in order to guarantee optimum quality, safety and reliability. In 2013, the Giotto dive computer made an appearance, which featured the Cressi RGBM algorithm, and could process data from repeat multi-day dives and gas mixtures other than air. The advanced Quantum mask made its debut in 2022 – this was among the most-complex masks on the market at the time. The Cressi company is still entirely owned by the Cressi family, which carries on with the same passion the work started by brothers Nanni and Egidio. Its spirit lies in the manufacturing tradition, with a clear preference for the conception and realization of its products in-house, from the initial design through to the smallest details.

In 2026, the year of the 80th anniversary of the company, Cressi released a limited-edition Dive Yellow collection, that pays tribute to the history of the business, and embraces the vibrant colour that best represents the brand. It also features the original Cressi logo.
**www.cressi.com**

## CRESSI THOR EBS FINS – 80TH ANNIVERSARY EDITION | SRP: £139.99

Brand new design for this extremely effective and yet very easy-to-use fin. The special arched profile of the fins combined with the two central ribs promote a significant flow convection effect, known as 'spoon effect', which stabilises and boosts propulsion. Two lateral holes discharge the negative forces typically associated with this area and at the same time make for enhanced stability.
The blades are moulded from two different materials for improved reactivity, and the bungee-style heel strap has a large loop that make it very easy to locate and grab, even wearing thick neoprene gloves in cold waters. These fins are perfect for scuba diving, whether you are an experienced diver or a novice, and come in four sizes – XS, S, M and L.

## CRESSI NEON COMPUTER WATCH – 80TH ANNIVERSARY EDITION | SRP: £349.99

Whether you're a scuba diver, freediver or spearfisher, the Cressi Neon is a compact dive computer that's smart enough to wear to the office. Monitoring your dive data is simple and intuitive; a clean, edge-to-edge display allows you to see your stats at a glance and you can switch between four different modes: Air, Nitrox, Gauge and Free.

Providing real-time data, including dive phase time, ascent speed and a customisable PPO2 range, the Neon's adaptable Cressi RGBM Algorithm supports multi-day decompression diving and Technical Features, an adjustable deep stop and O2 toxicity monitoring for enhanced safety. You can manage two Nitrox gases during a dive and even switch between Air and Nitrox modes between dives, a feature that is often missing on other similarly priced dive computers.

For freedivers and spearfishers, the dedicated Free/Apnea programme displays vital metrics like maximum depth, dive count and surface interval timers. The Gauge mode provides depth and bottom time tracking without decompression calculations, ideal for anyone needing a backup computer for technical diving. The Neon's durable build and mineral glass screen ensure lasting protection, while a battery life indicator and user-replaceable battery keep you dive-ready with minimal downtime. Built for comfort, the Neon's low-profile design makes it ideal for daily wear and dive adventures.

A scratch-resistant mineral glass screen protects your computer dive after dive, and optional Bluetooth connection for Mac, PC and smart devices means you can analyse and store your dive data in the Cressi app.

## CRESSI Z2 MASK – 80TH ANNIVERSARY EDITION | SRP: £89.99

The Cressi Z2 diving mask is manufactured through an advanced moulding production process to achieve a state-of-the-art frameless structure. The Z2 offers a wide and distortion-free field of view, allowing divers to enjoy a clear and panoramic view of their surroundings. Made of high-quality silicone, it adapts perfectly to the face, ensuring lasting comfort even during prolonged dives. Its single-lens frameless construction makes it exceptionally light and easy to handle - reliable, high-performance and comfortable, the Cressi Z2 mask is the ideal choice for keen divers who want a high-level underwater experience.

## CRESSI GARA TURBO IMPULSE FINS – 80TH ANNIVERSARY EDITION | SRP: £149.99

Following the Impulse project, Cressi have successfully transferred the same design parameters for S-shaped undulating deformation to this innovative fin. This particular movement permits a notable accumulation of elastic potential energy in the blade, which is released in the return kick, transforming into thrust. The thermoplastic rubber used for the water channelling rails is extremely flexible and soft so as not to undermine the intrinsic characteristics of the blade, which is made of elastomerized technopolymers developed by Cressi.

## CRESSI NANO MASK – 80TH ANNIVERSARY EDITION | SRP: £89.99

A mask for advanced freediving and spearfishing, designed to offer an extremely hydrodynamic and compact shape to help divers cut through water and aid movement in small spaces. The minimal internal volume – it is just 85 cm sq - does not require intentional equalization, and the angled lenses and thin frame optimize visibility. Swivel buckles, on the anatomical strap, are equipped with micrometric adjustment.

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## CRESSI T10 SC PVD + MASTER REGULATOR – 80TH ANNIVERSARY EDITION | SRP: £499.99

The Cressi T10 SC PVD Master is designed for divers who expect high levels of performance in demanding conditions. The T10-SC PVD first stage has a hyper-balanced diaphragm that adjusts airflow to match ambient water pressure for improved breathing performance at depth, even as cylinder pressure decreases, while the environmentally sealed design keeps water and debris out to prevent the risk of freezing or contamination. A conical first stage filter offers a large surface area for the efficient filtration of impurities from the cylinder. The conical shape means that the filter can handle more contaminants before needing to be replaced.

This high-performing first stage is finished in a super-tough PVD titanium coating that will keep your regulator looking good for years, and features two high-pressure ports, and four low-pressure ports, which are arranged in a T-shape to optimize hose routing.

The Master pneumatically balanced second stage features a premium laser-etched titanium front cover and the elliptical design fits naturally against the diver's face. The elliptical diaphragm has a large surface area, which reduces the effort needed to inhale, especially in high-demand situations or at depth. Cold water performance is further improved by the Master's internal heat exchanger, which uses warmth from the diver's breath, or the surrounding water, to stop ice from forming inside the regulator.

A large adjustable venturi maximises airflow in dive mode and prevents free-flows when the regulator is on the surface, even when wearing gloves, and the Master uses Safe-Flex hose, which is incredibly flexible compared with traditional hoses.

## CRESSI COMFORT 5MM WETSUIT – 80TH ANNIVERSARY EDITION | SRP: £399.99

The Cressi Comfort 5 mm is a one-piece wetsuit designed for water temperatures between 16°C and 24°C. Made from high-quality 5mm neoprene, this cosy and exceptionally stretchy wetsuit offers superior insulation and comfort.

The outer lining is 100% super-elastic Ultra-Span, while its X-Plush inner lining is soft and quick-drying, improving thermal retention before, during and after the dive.

X-Diamond reinforcement fabric protects high-wear areas, including the shoulders, shins and buttocks. The knee and tibia areas have elastic Tatex anti-wear reinforcements, offering protection from abrasive surfaces, without compromising stretch. The anatomically considered collar design has a 120° preformed cutaway, allowing for a more-natural fit that reduces pressure on the neck when looking down to adjust equipment or check gauges.

A high-quality YKK zip runs vertically on the back of the suit and a large thigh pocket on the right leg has two compartments and an integrated D-ring for securing accessories. A dedicated hood holder keeps your hood safe between dives (hood sold separately).

With its ergonomic cut and 100% stretch neoprene, the Cressi Comfort 5mm offers a tailored, anatomical fit for all-day warmth and comfort in temperate to warm water. The Comfort 5mm is available in male and female versions.

## CRESSI AQUAWING PLUS BCD – 80TH ANNIVERSARY EDITION | SRP: £679.99

The Cressi Aquawing Plus is a one-size-fits-all donut-style BCD. Featuring Cressi's industry-leading Modular Adjustment System (MAS), the Aquawing Plus offers a custom fit for both men and women - the continuous weave harness system allows you to fine-tune the adjustment of your harness so that it fits snugly to the shape of your body. Simply tighten the shoulder straps by pulling the waist straps, then loosen them in seconds by releasing the waist buckle and pulling up on the shoulders. This impressive adjustment range means you'll always get a perfect fit, whether you're drysuit diving or T-shirt diving.

Compact and streamlined, the Aquawing Plus is exceptionally stable underwater thanks to the donut shape air cell, which allows air to migrate evenly for consistent buoyancy and precise trim control. A crotch strap ensures the BCD stays in place during your dive, for precise trim and balance in the water.

Integrated weight pockets are securely attached to the lightweight anodised aluminium back plate, and weight pockets on the cylinder band allow for further adjustments to optimise buoyancy. An optional 2.5kg backplate bar is also available, helping counterbalance the forward-leaning tendency of back-inflation BCDs.

Cressi's innovative Air-Net material lines the shoulder straps and covers the back plate. Soft and padded, the material drains quickly and is neutrally buoyant. Four pre-bent stainless steel D-rings and a convenient pocket for your Surface Marker Buoy ensure easy access to essential gear. The Aquawing Plus is ideal for divers seeking a compact backplate and wing configuration.

## CRESSI QUANTUM MASK – 80TH ANNIVERSARY EDITION | SRP: £149.99

The major innovation with the Quantum masks is that as well as offering enhanced downwards vision, it avoids the fogging phenomenon through the internal thermoregulation of the warm, damp air exiting the nose. This air is channelled by a system of membranes set in the moulding around the eyes and nose and deviating the flow towards the rubber skirt rather than the lenses.

The external part of the skirt features a cooling system composed of two small heat exchangers that act as radiators. The effect is that the temperature inside the mask drops, coming closer to the external temperature, and the droplets of humidity are trapped before the air reaches the lenses, preventing them from fogging up.

Despite the presence of the small internal membranes deviating the air flow and the external heat exchangers, the body of the Quantum mask is nonetheless compact and represents the most-advanced design offered on the underwater vision market. The lenses are not treated chemically and it is also always useful to use saliva as a surfactant before every dive.

## CRESSI NEPTO COMPUTER WATCH – 80TH ANNIVERSARY EDITION
SRP: £279.99

Designed with freedivers and spearfishers in mind, this easy-to-use freediving watch offers core functionality in a compact, streamlined profile that is perfect for daily wear. Using Cressi's advanced Taravana Risk Reduction Algorithm, the Nepto enables divers to select one of eight surface recovery settings. This ensures safe intervals between dives and helps reduce the risk of Taravana, a form of decompression sickness caused by rapid, repeated breath-hold dives.

The Oedema Protection Algorithm lets divers set progressively deeper warm-up dives to gradually acclimatise to deeper depths. This supports lung health and reduces the risk of oedema, which is essential for freedivers and spearfishers looking to responsibly push their limits.

From customisable alarms to precise data sampling every 0.5 seconds, this device captures and stores comprehensive dive data. Essential metrics like depth, time and water temperature are easily viewed on the high-contrast, backlit display, which remains legible in low-light conditions.

The user-replaceable battery and hydration reminders are added conveniences, making the Cressi Nepto as functional as it is dependable, even during demanding repeat dives.

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## MARES ACTIVE PRO HEATED VEST | SRP: £191

**Mark Evans:** All cold-water divers know that the best route to a comfortable, enjoyable dive is the correct exposure protection. In places like the UK in the winter months, when inland dive sites can get down to low single-digits, having the right amount of warmth under your drysuit is vitally important.

Now undersuits have certainly come on leaps and bounds from my early days as a drysuit diver, when I had a 'woolly bear', which was effectively a boiler suit lined with a sheep. It was warm as toast – until you had a leak and it got wet, or you sweated, in which case you ended up nithered.

These days undersuits from the likes of Fourth Element, O'Three, Otter, Scubapro, Santi and, of course, Mares use technically advanced materials which can be layered up and have advantages like wicking away moisture, being wind-resistant, super-stretchy, quick-drying, etc.

In the depths of winter, I normally break out a base layer to go under my main undersuit, and this is usually enough to stave off the effects of the cold water for a good 45 minutes before I start to feel a bit of a chill in my extremities, and I can manage an hour with no real discomfort.

However, nothing beats adding a bit of electrical wizardry to your diving arsenal! Now I have tried various heated vests and undersuits in the past, but the majority – while being extremely efficient and effective - were very expensive, putting them out of the reach of many divers. That's where the Mares Active Pro heated vest comes in. At under £200, it represents fantastic value for money, and best of all, it works very well, and is easy to use. Win all round!

The Active Pro features two layers. The high-insulation inner fleece lining feels soft and comfy against the skin, and it effectively traps a layer of air, thus giving additional warmth even before you turn on the heating elements. The moisture-wicking outer shell pulls any sweat away from your body to help prevent you feeling any chills. The actual vest itself, despite this dual-layer construction is quite lightweight and relatively thin, so it will fit under your drysuit along with your regular undersuit with no issues.

Flatlock stitching is used throughout, so the seams lie flat against your skin, preventing any pressure points or chafing that might occur as you head into the depths. There are zippered hand-warmer pockets on either side, and the main zipper is a double-ender for comfort. The vest also has an anti-bacterial treatment incorporated into its materials, helping to maintain freshness and hygiene over an extended period. It can be hand-washed when even ▸

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## MARES ACTIVE PRO HEATED VEST | SRP: £191

that impregnated magic cannot overcome that 'diver smell'... I wore the Active Pro over my thin base layer, and under my main undersuit. Once I had my drysuit on, I couldn't even register the vest, it is that comfortable and non-bulky.

The compact battery slots into a zippered pocket on the right-hand side, and plugs into the vest's heating elements. The heat settings are activated by pressing the external button that sits on the right-hand side of the upper chest area. You simply press this button repeatedly to cycle through the three heat settings – Max, High and Low - and 'off'. A handy vibration function lets you know which of the three heat settings you are activating, although the button also lights up (not that you'd see this when you are using it).

Now I have to admit I was dubious about that little on/off button. It is relatively small, and while it does protrude from the vest somewhat, I was doubtful I would be able to locate and operate it through my drysuit, especially while wearing 5mm gloves. I needn't have worried, the button is simple to find, and I found it comfortably sat just inside from my shoulder strap.

When turned on, the system distributes warmth to the back/kidney area and both sides of the chest, and this combined heat does a fantastic job of warming your torso. Because your core is nice and toasty, this means your extremities do not feel the cold as quickly, and my hands were still feeling relatively warm after an hour in a trilaminate drysuit wearing 5mm neoprene gloves (well-worn with holes in the ends of the fingers!).

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# GEAR TEST EXTRA

Each issue, the Scuba Diver test team bring you the latest product and equipment releases from the dive industry. Cannot wait for the next edition? Keep up-to-date with all the latest gear news and reviews by heading over to the Scuba Diver YouTube channel!
**www.youtube.com/ScubaDiverMagazine**

## MARES ACTIVE PRO HEATED VEST | SRP: £191

I found that cranking on the heat while I was getting my kit set up in the car park when there was a brisk breeze was good to build up a good base temperature, and then I turned it off while I was trucking down to the water in all of my gear. Once in the water, I cycled through from Max, to High, to Low as I got too warm, and then when I started to feel the chill again, I'd boost it back up.

Depending on power level, the li-ion battery will last from two-and-a-half to eight hours, which is more than enough for a full diving day. And I found it didn't take long to charge the battery back up – a few hours plugged in and it was back to capacity. There are indicators on the battery to show the level of charge – one light is under 25%, two lights shows a 50% charge, three lights shows 75%, and all four illuminated indicates a full 100% charge.

The Active Pro heated vest is tailored to fit both men and women, and comes in three sizes, with side zippers for improved fit and comfort. It is designed to integrated seamlessly with the Mares Active Pro pants for a complete thermal solution.
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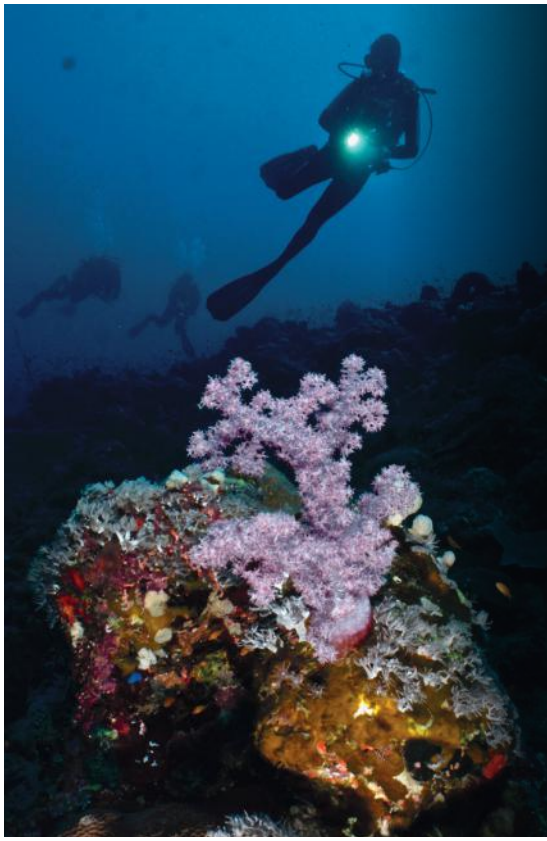

# NEXT MONTH'S ISSUE

**EXPLORING SULAWESI ON THE PINDITO, PART TWO**
Don Silcock concludes his adventure in Indonesia's South Sulawesi, safe in the hands of the legendary Edi Frommenwiler.

**Q&A: ANNIE CRAWLEY, PART TWO**
We round out our conversation with the underwater photographer and film-maker whose recent work highlighted the threats facing sharks and other marine life around the island of Malpelo.

**BONAIRE - THE SHORE-DIVING CAPITAL OF THE WORLD**
Editorial Director Mark Evans makes a long-overdue return to the 'land of diving freedom', where you and your buddy can head off in a pick-up truck and explore dive sites at your own pace.

**JOINING THE RANKS OF THE RESCUERS**
Luke Evans makes the short-haul flight to Malta to complete his PADI Rescue Diver course in sometimes challenging conditions.

**TECH: THE ANDREA DORIA, 70 YEARS ON**
Mike Dudas delves into the history of the infamous Andrea Doria shipwreck, the so-called 'Mount Everest of Wreck Diving', which has claimed several lives over the years.

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SCUBA SHOW

# MONTY'S MUSINGS

GO Diving Show and TV favourite Monty Halls waxes lyrical about scuba diving, travelling, the environment, conservation and innumerable other topics in his own inimitable style.

Photographs by Monty Halls

## IT'S WHO YOU TRAVEL WITH...

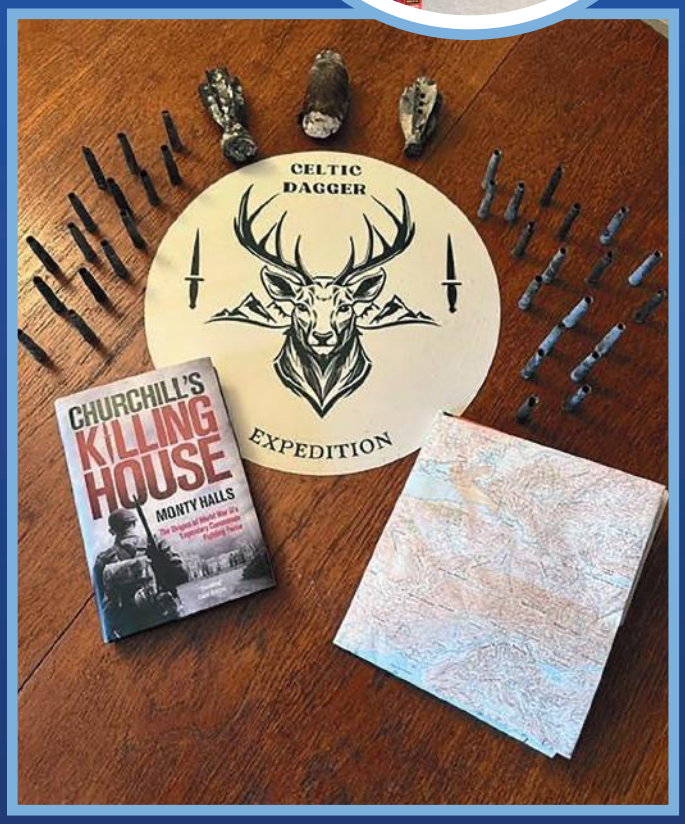
**We've got the kit, us divers. We've got RIBs, rebreathers, cameras, sidemounts, bailouts, drysuits, wetsuits, silicone and spandex. We also have access to the greatest array of dive destinations ever presented to an aquanaut in the history of mankind. Some tropical sculling with a colossal cetacean? Walk this way, sir. Tickle a leopard seal under the chin? Just over here, ma'am. Do you have good dive insurance by the way? Ah, excellent. Waltz with a whaleshark? We await your arrival with bated breath.**

As a backdrop to our heroics we have a choice of dazzling white beaches, dark Atlantic cliffs, tropical forests, icebergs, vast sapphire skies, or volcanic sand as dark as onyx. Our accommodation varies with our budget of course, but generally we are catered for and housed in places that, for any other age or epoch, mean we travel like emperors. And do you know what? None of the above makes the slightest difference if one, just one, of your travelling companions is a dick.

It all comes down to people you see, diving. As Mr Andy Torbet himself is fond of saying 'The place is just wallpaper, it's who you're with that counts'. And I've seen his wallpaper (tanks, battleships, and frogmen), so he knows what he's on about.

I've just returned from our latest Celtic Dagger expedition. Literally got in this morning after a 12-hour drive, so I type these words with coffee-stained fingers as I peer through road-addled eyes. But this simple truth dawned on me as I meandered the length of Britain from Kinlochmoidart to South Devon. The expedition was in the loveliest, wildest, most-beautiful place you can imagine. The tale we were researching was one of such breath-taking audacity and heroism that it was an honour – a real honour – to recover artefacts on dives that turned just one more page of the story. We were hosted regally by the laird, ate venison and prawns in the ancestral manor, and watched stag on the lawns as golden eagles soared on the ridges overhead.

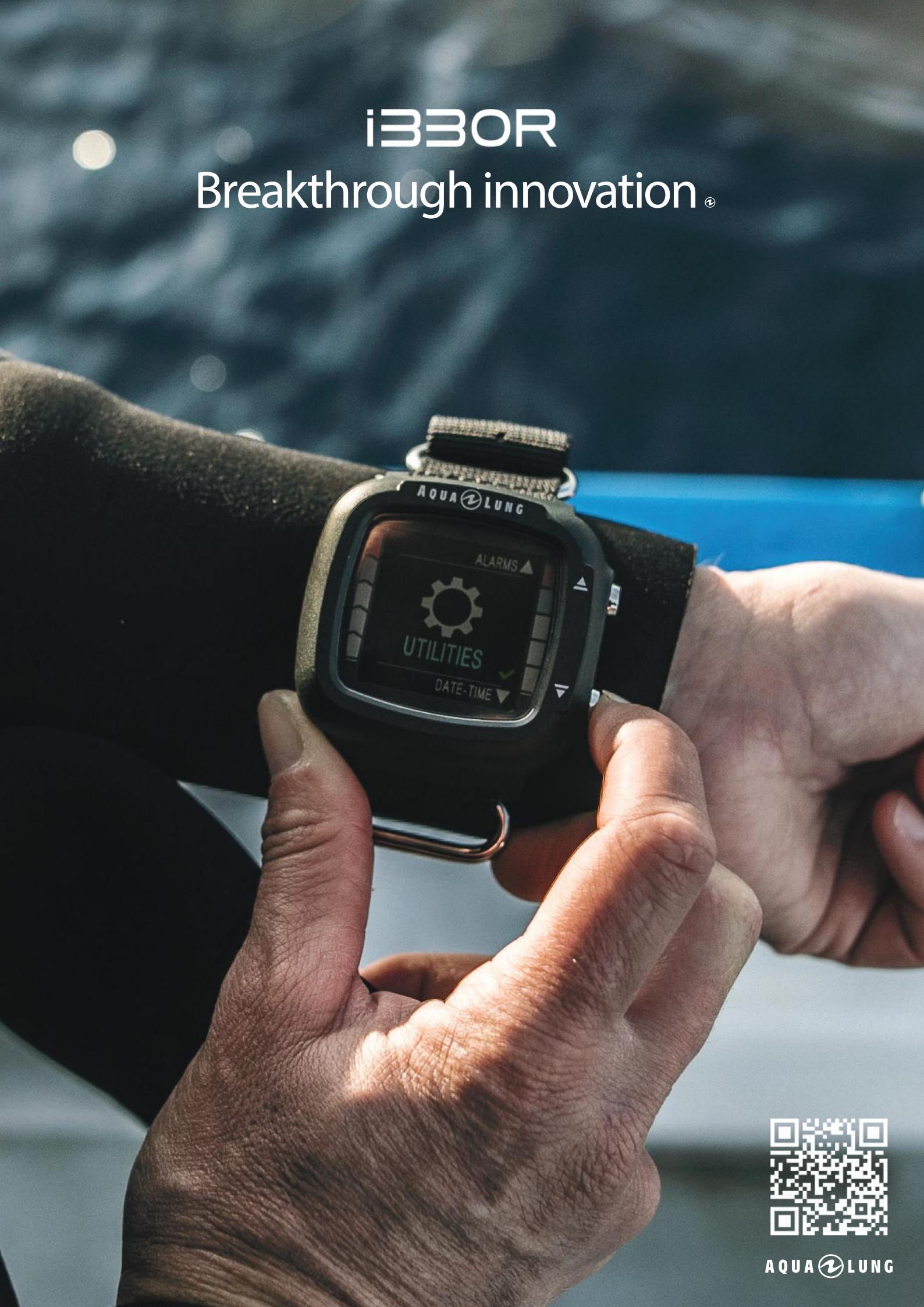
But even with all this (you now think I'm about to get stuck into someone, don't you? Quite the opposite...) the trip was actually made by the team itself. It rained a fair bit, and we had to work pretty hard to get people and kit to some of the more-remote beaches. We also dived one site where we were assured that the seabed was a veritable military museum, piled high with Lee Enfields, commando




fighting knives, and Lord Lovat's green beret. Six of us searched for an hour, and found what appeared to be a 1984 Branston Pickle jar. And yet the rough-with-the-smooth, the 'mucking in', the win-some-lose-some principles that actually epitomised the 1940's organisation we were researching, came thoroughly to the fore with the Celtic Dagger team of 2026. They were, quite simply, splendid to travel with. And that's what made the trip.

So, a note for us all. Diving may be a buddy-based activity, with just the pair of you looking out for each other, but actually the antics of just one bad egg can ruin it for an entire group. Celtic Dagger 2026 was a veritable omelette of good eggs (as was 2025, actually), and after all is said and done, that's the difference between success and failure on a dive trip. And if you're thinking how lucky you are that there isn't an imbecile in your group, double check that it isn't actually you. In fact, hang on a minute...

Oh, and out of interest – the story of the remarkable men we were researching is told in my new book – Churchill's Killing House - which is out now. Their courage was immense, the initiative limitless, and their sacrifice beyond measure. It's been a privilege to tell it, and a joy to travel to the site where it all started with such a splendid bunch. ■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