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DIVERS FOR THE ENVIRONMENT

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EDA'S UNDERWATER PHOTOGRAPHY & FILM COMPETITION

DIGITAL ONLINE 2022'S RESULTS ARE IN

• OCEAN SOULS • PADI ADAPTIVE DIVER TRAINING • REEF CHECK WITH EDA • A UNIQUE ARTIST • REVIEWING THE CREST CR-5 • DIVING DESTINATIONS 2022 • THE HEART AND DIVING



Reef Check

UNITED ARAB EMIRATES



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REGULARS

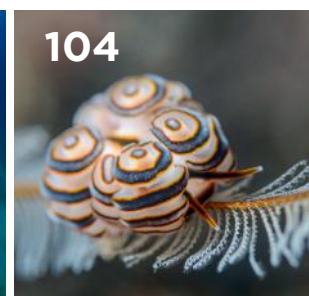
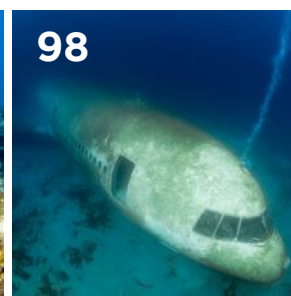
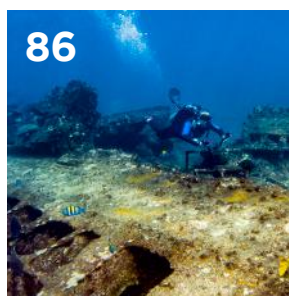
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DIVERS FOR THE ENVIRONMENT

Please note that EDA's magazine, 'Divers for the Environment' includes articles written by individuals whose opinions, whilst valid, may or may not represent that of EDA's. The magazine is a platform for individuals to voice their opinion on marine and diving related issues. You are welcome to suggest an article for the next issue released in September 2022. Send all articles, feedback or comments to: magazine@emiratesdiving.com

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PHOTO BY MICHAEL RALL
Digital Online Honourable Mention 3rd Place Macro
www.michaelrall.com



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EDITOR & GRAPHIC DESIGNER

ALLY LANDES

Ally is EDA's Project Manager, Event Planner & Coordinator, Graphic Designer, Writer, Editor, Photographer & Videographer. She created and introduced 'Divers for the Environment' back in December 2004 as a free educational tool to share information by scientists, conservationists, underwater photographers, and other like-minded individuals from all over the world with a passion to conserve and protect our delicate marine life and underwater world.



THE QUARTERLY CONTRIBUTORS

Meet the magazine contributors who share their passions and interests with our readers. Want to contribute? Email: magazine@emiratesdiving.com

ANTHONY LEYDET

A graduate of Marine Biology, Anthony is an underwater photographer, blogger and writer set on sharing articles and holding conferences dedicated to marine life in order to better observe nature underwater. www.zesea.com



RANIA SHAWKI MOSTAFA

Rania is an avid diving instructor and People & Culture leader with a passion for marine conservation and underwater photography. Having lived, dived and worked in different parts of the world, Rania, who is originally from Egypt, recently relocated back to Dubai and is excited to restart the Reef Check programme with EDA.



ADA NATOLI

Ada is a specialist in population genetics applied to conservation of species. Having been involved in whale and dolphin research since 1992, she is a member of the IUCN Cetacean Specialist List and founder of the UAE Dolphin Project. www.uaedolphinproject.org



BRYANA COPE

Bryana is a Research Assistant at Zayed University working on the UAE Dolphin Project. She is originally from the United States where she worked on native species conservation before moving to Dubai almost 3 years ago, where her passion for marine biology and conservation only grew. www.uaedolphinproject.org



PATRICK VAN HOESERLANDE

Diving opens up a whole new world. Being a writer-diver and co-editor of the Flemish divers magazine, Hippocampus, Patrick personally explores our underwater world and shares his experiences through his articles. You'll find a collection of them on www.webdiver.be.



GIUSEPPE DI TURSI

Giuseppe is an Aerospace Engineer and a near-graduate Biomedical Engineer, passionate about physiology in extreme environments, specifically in diving. He is also a PADI Master Scuba Diver Trainer, EFR and DDI Instructor.



HH SHEIKH MOHAMED BIN ZAYED: A LEADER-BORN PRESIDENT, AND A KEEN ENVIRONMENTALIST



IBRAHIM AL-ZU'BI
Co-Founder & Executive Director

I would like to welcome you all to the June issue of 'Divers for the Environment'. Half of 2022 has already gone and the UAE has lost our beloved President, Sheikh Khalifa bin Zayed Al Nahyan – may his soul rest in peace and welcome another great leader, HH Sheikh Mohamed bin Zayed Al Nahyan, a leader-born President.

On the 14th of May 2022, the UAE pledged allegiance to the UAE's new President, His Highness Sheikh Mohamed bin Zayed Al Nahyan as the leader of the nation's march, amidst a deep belief in his ability to continue to forge ahead with the nation's illustrious drive of glory, development and construction. Guided by the directives of the late Sheikh Zayed bin Sultan Al Nahyan and the late Sheikh Khalifa bin Zayed Al Nahyan, HH Sheikh Mohamed bin Zayed helped develop the UAE Armed Forces in terms of strategic planning, training, organisational structure and promoting defence capabilities. Sheikh Mohamed's direct guidance and leadership led the UAE Armed Forces to become a leading institution that is widely admired by many international military organisations.

His Highness Sheikh Mohamed bin Zayed Al Nahyan, is a leader of high calibre who made a difference at the local level, and achieved remarkable milestones in terms of promoting peace and security, regionally and globally, while spreading tolerance and peaceful coexistence between religions and societies, and setting an example to be emulated for humanitarian work.

His Highness Sheikh Mohamed bin Zayed has been a champion of environmental issues and is expected to lead the region and the world towards saving our precious world, and making sustainability a way of life as seen from his policies and personal perspective.

He initiated the Mohamed bin Zayed Species Conservation Fund, an innovative philanthropy providing small grants to boots-on-the-ground, get-your-hands-dirty, and in-the-field species conservation projects for the world's most threatened species.

Through innovative micro-financing, the Fund empowers conservationists to fight the extinction crisis without getting bogged down by bureaucracy and red tape. To date it has awarded over 2,000 grants to a diverse range of species across the world.

The fund has opened its platform to support conservationists based in all parts of the world and will potentially aid projects focused on any and all kinds of plant, animal and fungus species,

subject to the approval of an independent evaluation committee.

In addition, it recognises leaders in the field of species conservation and scientific research to ensure their important work is given the attention it deserves, and to elevate the importance of species in global conservation discourse.

In 2019, the fund supported 170 projects selected from 1,647 grant applications. The selected projects, located in over 60 different countries across six continents, shared \$1,502,029 in funding.

The diving industry and community have been busy the last 6 months, and I am sure they will be even busier in the next 6. We've just held the 13th year cycle of Digital Online – EDA's Underwater Photography and Film Competition's Awards Night to announce this year's winners. It was our first in person awards night since Covid which took place at Deep Dive Dubai, and it was a full house event. It was great to meet and talk to the members and catch up as we used to. I thank all our underwater photography and videography participants for sending EDA their amazing images of the varied marine life from all the places they have dived. They are very inspiring and beautiful, as always. I am sure you will all agree with me when you see the photos in this issue. I also want to thank the judges, the sponsors, and the EDA team for another successful EDA event towards promoting for diving, not only in the UAE, but all over the world.

In other good news, Reef Check is back and one of our great EDA members, Ms Rania Shawki Mostafa will be leading it, so get ready to dive for another good cause.

As we stand today and take stock of the half year gone by, we acknowledge each and every EDA partner, the dive centres, and our supporters and members for their vital support through one of the most challenging periods on record. It is this spirit of symbiotic partnership that remains at the heart of our journey to inspiring people to care about the oceans, as we look beyond this present moment in time.

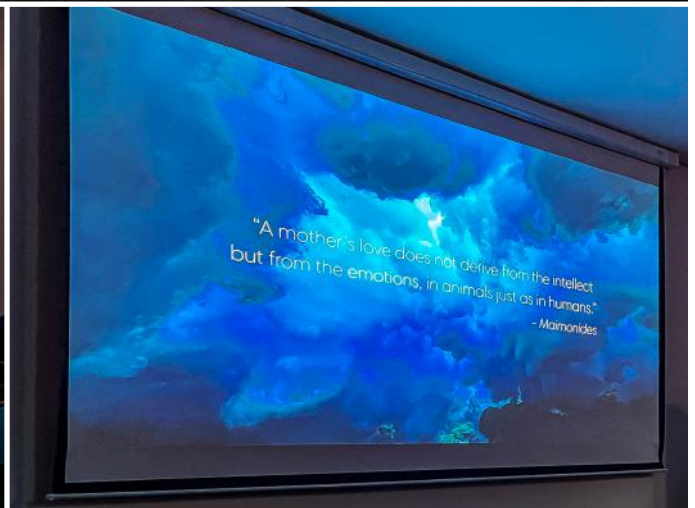
I do hope you enjoy reading our summer issue. We look forward to seeing you all at the next EDA events.

Stay Safe,

Ibrahim Al-Zu'bi

Ibrahim N. Al-Zu'bi

AN EDA MOVIE SCREENING OCEAN SOULS



We held our second quarterly EDA Movie Screening social event on the 5th of May with the beautiful documentary, Ocean Souls. It's always great to see our members who are able to make it to these small events in person. As always, we also have the option to watch our quarterly documentaries online for those unable to attend the screenings and for our international members to continue enjoying EDA activities from afar.

We especially want to thank Deep Dive Dubai for supporting EDA and hosting our movie screenings at their venue.

SYNOPSIS

Ocean Souls is an emotive documentary about cetaceans, showing possibly the largest diversity ever seen on film. It highlights new science and discovers that there is an intelligence beneath the waves that closely mirrors our own. Cetaceans, despite looking so different to us, are possibly our closest relatives in terms of cognitive abilities and family ties. In the same way Live Aid united the world's best musicians, Ocean Souls unites over 100 filmmakers, 25 of the world's best scientists and several experts. It is truly an unprecedented collaboration.

WANT TO JOIN OUR EVENTS?

Our social and online EDA Movie Screenings are only accessible to current EDA members. Our screenings have limited spots available. Registration to join them is necessary in order to join the guest list to our social event, or to receive the special link to view the films online.

You can register for EDA membership or renew it via our website here:

www.emiratesdiving.com/membership-form



SCAN ME



OCEAN SOULS

the film

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and 25 renowned cetacean scientists

PHILIP HAMILTON
DIRECTOR & PRODUCER

SCOTT WILSON
DIRECTOR OF PHOTOGRAPHY

ARMAND AMAR
ORIGINAL MUSIC

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THE DIVE MENA EXPO

CO-LOCATED AT THE DUBAI INTERNATIONAL BOAT SHOW

The Dive MENA Expo made it back to the Dubai International Boat Show this year on the 9-13 March 2022 after a 2 year hiatus from the Covid-19 pandemic outbreak. Although the dive section was much smaller this year in terms of equipment on show, there were some really interesting talks given by some of the industries guest speakers at The Reef Dive Talks corner over a three day schedule.

The first day's talks introduced Jarrod Jablonski, a pioneering technical diver and record setting cave diver, as well as an accomplished business owner who explained all things from designing and constructing Deep Dive Dubai – the world's deepest pool – to the daily operation, and diving inside it. Film Maker David Diley flew over from the UK to give his talk on how to build a career as an underwater cinematographer through his own successful experiences on his films and projects, and was met with passionate listeners and their questions. There was a discussion panel to end the day on the Passions of Diving with Ibrahim Al-Zu'bi, the Emirates Diving



Association's Founder and Majid Al Futtain's Chief Sustainability Officer, joined by Khalid Alrazooqi, the General Director of Artificial Intelligence at Dubai Police GHQ. They were interviewed by Yuriy Rakhmatullin from Freediving UAE to discuss how diving came into their lives and what the underwater world means to them.

The second day's talks began with Ahmed Gabr, a 2014 Guinness World Record holder from Egypt for the deepest scuba dive recorded at 332.35 metres. Faisal Jawad Hashim, a young Kuwaiti followed to share his incredible life story of his tragic accident, coping with disability, discovering diving, and then becoming a 2018 Guinness World

Record holder for the fastest 10km scuba dive with an amazing time of 5 hours and 24 minutes in Hurghada, Egypt. The triumph over his disability rebuilt his confidence and has made him a motivational speaker and trainer.

The day's last speaker was that of professional diver, explorer, founding member of the exploration organisation Global Underwater Explorers (GUE), accomplished photographer and cinematographer, Richard Lundgren whose remarkable story of discovering the mighty admiralship Mars the Magnificent sunk during the Nordic seven-year war in 1564. Richard gave an insightful breakdown on the history and the thrilling discovery after many long years of searching for it by him and his team. This was definitely a highlight presentation.

The last day's presentations were by Mariam Fardous, the first Arabic woman to have dived in the North Pole, and Yuriy Rakhmatullin on the natural way to explore the underwater world through freediving.



THE ENVIRONMENT AGENCY – ABU DHABI

ANNOUNCES BAN ON SINGLE-USE PLASTIC BAGS FROM JUNE 2022

As part of the UAE's vision to enhance sustainable living in Abu Dhabi, the Environment Agency – Abu Dhabi (EAD) announced on the 6th of April that its ban on the use of single-use plastic bags will be effective from June 2022, based on its integrated single-use plastic policy that was introduced in 2020.

Through the implementation of the region's first integrated policy, the Agency plans to gradually reduce the amount of single-use plastic products consumed across Abu Dhabi, and encourage the use of reusable products. In this context, EAD is planning to implement measures to reduce demand for about 16 single-use plastic products that include cups, stirrers, lids, and cutlery.

Additionally, EAD is also heading towards phasing out single-use styrofoam cups, plates and food containers by 2024.

The comprehensive policy has been developed to promote a healthy environment and a sustainable lifestyle for all, and to combat climate change by reducing resource consumption and associated pollution.

Since the launch of the policy in March 2020, the Agency has coordinated extensively with its strategic partners concerned with implementing the policy, especially plastic producers and retailers, to ensure effective implementation as new technical standards for multi-use bags have been set. In support of this drive, a large-scale awareness campaign will be carried out across the emirate to educate the public on the new procedures, helping to activate the ban on single-use plastic bags from June.

Her Excellency Dr Shaikha Salem Al Dhaheri, Secretary General of EAD, said, "By launching and implementing the integrated single-use plastic policy, EAD seeks to continue the legacy of the late Sheikh Zayed whose deep passion for preserving the environment inspires us in our sustainability journey. We are extremely eager to continue on our path of reducing the consumption of single-use plastics in Abu Dhabi."

She added, "As part of our plan to completely curb the use of single-use plastics, we are encouraging Abu Dhabi citizens to use more multipurpose and re-usable materials to reduce their environmental footprint. Today, we are introducing a ban on single-use plastic bags in the capital in light of their harmful impacts on the environment and biodiversity."

She elaborated, "We have taken great strides toward realising the policy's targets, and have built the regulatory framework to ensure the policy's successful implementation. With the

support of the UAE government and close collaboration with our stakeholders, we are on the right track towards success."

In the context of implementing the integrated single-use plastic policy, EAD has organised clean-up events and awareness campaigns encouraging community members to play a role in protecting the environment while educating people on the damage done by the amounts of single-use plastics and litter, and their impact on beaches and the marine habitats. The Agency is also targeting private sector companies, providing them with tools to effectively plan for the policy's implementation.

The Agency has re-engineered its internal procedures to implement the policy and reduce the use of single-use plastics within its scope. Several agency partners from the government sector have also implemented initiatives to support the policy, while many restaurants are also launching initiatives to reduce the consumption of single-use plastics, and some major retailers are encouraging shoppers to use reusable shopping bags.

Furthermore, EAD is conducting a detailed and holistic study for the introduction of an incentive-based, single-use plastic water bottle return scheme in Abu Dhabi, in partnership with more than 30 private and public entities.



EAD DISCOVERS NEW EAGLE RAY SPECIES

IN ABU DHABI WATERS NOW ADDED TO THE GLOBAL LIST



The Environment Agency – Abu Dhabi (EAD) announced its discovery of a new Eagle Ray species in Abu Dhabi waters. The new species (*Aetomylaeus wafickii*) was discovered from specimens collected in the Arabian Gulf during the Fisheries Resource Assessment (FRAS) which was carried out in 2016.

The specimens were collected with other specimens of elasmobranchs and fish. During that time the Eagle Ray was identified as the Banded Eagle Ray (*Aetomylaeus nichofii*), which is very similar in appearance. However, it was then considered new after thorough examination and the publishing of a scientific paper highlighting its astute physical description.

The newly described species can be distinguished from similar species – the Blue-banded Eagle Ray (*Aetomylaeus caeruleofasciatus*) and Banded Eagle Ray (*Aetomylaeus nichofii*), by having a larger number of pale blue bands across its dorsal surface (8-10 bands), a larger number of tooth plate rows, and a shorter tail. This description was published in the Marine Biodiversity Journal on the 11th of February 2022.

Ahmed Al Hashmi, Executive Director of

Terrestrial and Marine Biodiversity Division at EAD said, "It is very exciting for us to discover a new species of Eagle Ray in Abu Dhabi. This is a prominent indication that our waters are healthy and that we have an abundance of marine biodiversity."

Within the past two years, we have discovered a series of species, and I am confident that we can make even more discoveries in the future, as long as we continue adopting accurate scientific methodologies to ensure credibility.

To ensure longevity and sustainability of our species, at EAD we engage in extensive rehabilitation programmes so that our species can thrive for future generations and enjoy the breadth and beauty of Abu Dhabi's biodiversity."

Fisheries surveys in the United Arab Emirates waters have made it possible to collect many specimens in the Arabian Gulf, that were then examined and compared to other regional variants of the species. Over 600 specimens of fish were collected along with several elasmobranchs. Specimens collected and measured have been deposited into fish collections at the California Academy of Science (CAS), Museum of Comparative

Zoology (MCZ), Harvard, and the United States National Museum Smithsonian (USNM). Batoidea family (rays) is closely related to the shark family and includes rays, skates, guitarfish and sawfish. There are over 630 batoid species altogether. Like sharks, their skeletons are composed entirely of cartilage rather than bone. Batoids are typically flattish in shape and are generically referred to as 'flat sharks'. Most batoids are bottom feeders, digging up shrimps and crustaceans from the ocean floor which helps to oxygenate the sediment and maintain a healthy ecosystem.

Eagle rays are demersal and semi-pelagic rays with a circumglobal distribution where most species can be found near coastlines. Their body size ranges from medium to large (60 to over 200cm disc width) with a wing-like shaped frame. Eagle Rays use their robust jaws and plate like teeth to feed on molluscs and crustaceans, as well as worms and small boney fish.

The Arabian Gulf is characterised by extreme fluctuating environments with surface sea temperatures (SSTs) exceeding 20°C. In summer SSTs reach over 36°C in the shallow southern basin, and a minimum of 12°C in winter. The Arabian Gulf also exhibits extreme salinity due to high evaporative rates.

EAD RECORDS A REMARKABLE IMPROVEMENT IN SUSTAINABLE FISHING FOR THE THIRD CONSECUTIVE YEAR



Hamdan bin Zayed praises the commitment of the fishermen, the support of the Environment Agency Abu Dhabi's partners, and their effective role in implementing the decisions and procedures related to fishing.

His Highness Sheikh Hamdan bin Zayed Al Nahyan, Ruler's Representative in Al Dhafra Region and Chairman of the Board of Directors of the Environment Agency – Abu Dhabi, (EAD) praised the commitment of fishermen and their effective role in implementing the decisions and measures related to the fishing sector taken by the Agency to protect fish stocks. The new measures contributed significantly to reducing the effects of overfishing on the marine environment and resulted in an improvement in the fisheries 'Sustainable Exploitation Index' for the third year in a row. The index increased from 8.9% in 2018 to 62.3% at the end of 2021.

His Highness Sheikh Hamdan said, "The Agency would not have been able to record achievements in the field of protecting marine resources without the fruitful cooperation of the Ministry of Climate Change and Environment (MOCCA) and

its strategic partners. The stakeholders partnered within the framework have made comprehensive efforts to protect fish stocks, preserve the marine environment and its natural resources, and achieve sustainability in this sector. We must preserve the fishing heritage passed on from our ancestors for our future generations so they can enjoy the goodness of our land, and our cultural and natural heritage."

His Highness Sheikh Hamdan added, "Due to the over-exploitation of fisheries and their severe depletion, the fishing sector in the emirate of Abu Dhabi was under pressure, which led to the reduction of stocks of the main commercial species to unsustainable levels, according to international benchmarks. This required the implementation of a set of international procedures and standards for the management of fisheries in Abu Dhabi, which today, has succeeded in achieving remarkable results. These were reflected in the performance indicators of fisheries, within the framework of the ambitious plan set by the Agency, with its relevant partners to transform the stock from a state of overexploitation to sustainably exploited."

He further elaborated, "The measures taken by the Agency in response to population growth and the growing demand for fish, which has led to increased pressures on fish resources, will contribute to enabling fish stocks to recover on the long run, allowing at least 70% of our fisheries resources to recover sustainably by 2030."

He also indicated that the increase in the Sustainable Exploitation Index to 62.3%, indicates that the administrative measures implemented are moving in the right direction, which will lead to the recovery of fish stocks by 2030.

Her Excellency Dr Shaikha Salem Al Dhaheri, Secretary General of EAD said, "Based on detailed evaluations and scientific studies of fish resources conducted by us at EAD, and other relevant authorities throughout the years, a system of globally acceptable methods for managing the fish stocks has been created and implemented in collaboration with our partners. These efforts resulted in the establishment of several marine reserves, the introduction and implementation of a system for licensing commercial and

recreational fisheries, and the regulation of fishing equipment use. This is in addition to implementing a seasonal ban to protect fish during their breeding seasons and setting a minimum size of fish that can be caught for some major species, as well as the prohibition of unsustainable fishing methods."

She added, "Since 2001, the Agency has been monitoring the state of fish stocks according to two basic indicators of sustainability, the first of which is the 'Spawning Biomass per Recruit' (SBR), index, which is the percentage of the fish that are old enough to spawn, allowing for the renewal of the stock. The index assessed 30 key species, which represented 96.8% of the total commercial catch in the emirate of Abu Dhabi during the year 2021. The second indicator is the 'Sustainable Exploitation Index' that is used to describe the proportion of species that are sustainably exploited."

"Concerning the Sustainable Exploitation Index, the Agency's data revealed a noticeable increase in a short period of time from the implementation of fishing-related measures and procedures, reaching 62.3% at the end of 2021. The indicator was calculated in 2021 by evaluating a total of 32 species which represented 98.6% of landings in 2021."

Her Excellency elaborated that the Agency's data revealed an improvement in the percentage of the Spawning Biomass per Recruit which determines the proportion of the stock volume of 30 main commercial species, compared to the volume of their untapped stock. The index was calculated in 2021 by analysing a total of 30 fish species, which represented 96.8% of 2021 landings. Progress was also monitored towards increasing the average stock size from 8.1% in 2019 to 34% in 2021.

EAD has recorded a remarkable improvement in the state of fish stocks during 2021 for some of the main commercial fish species in the waters of Abu Dhabi.

The percentage of the average mature stock of Badah (*Gerres longirostris*) increased from 40% in 2015 to 62.5% in 2021, while the percentage of Hamour (Orange-spotted Grouper) increased from 15.8% in 2020 to 20.5% in 2021. The percentage of Qabit (*Rhabdosargus sarba*) also increased from 18.8% in 2018 to 26.9% in 2021. The percentage of mature stock of Aqalah (*Lutjanus fulviflamma*) increased from 64.8% in 2014 to 67.8% in 2021, and the percentage of Naiser (*Lutjanus ehrenbergii*), increased from 35.8% in 2018 to

48.5% in 2021.

As a result of the recent demand for fishing for other commercial species, during 2021, the Agency included two types of fish for the first time in the fish stock assessment study of Haqool and Aifah. The results showed that the stock of these fish is within the limits of sustainable exploitation.

It is expected that these indicators will rise in the coming years if the existing measures are continued, such as the banning of Gargoor fishing methods where three main species are targeted, including Hamour (Orange-spotted Grouper), Shaari (Spangled Emperor) and Farsh (Painted Sweetlips). This is in addition to the decision to prevent fishing using encircling nets in the waters of Abu Dhabi.



SUEX

NEW & PRE-OWNED DPV'S AVAILABLE

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“SAVE THE BUTTS” TO SAVE OUR OCEANS! LET’S JOIN HANDS TO CREATE VALUE FROM WASTE



Since 70% of our planet is covered by water, it felt right to celebrate our ocean this Earth Month. Having been working with the amazing team at the Ocean Conservancy for some time on marine clean-up activities, Goumbook was grateful and excited to have secured a small grant under their Team Seas Earth Month funding scheme. This grant supported us in running three free clean-up events for the community as well as one school, getting a total of 104 volunteers engaged in our new “Save the Butts – Waste to Value” campaign collecting over 19,100 cigarette butts from public beaches and actively doing their bit for a healthy, thriving ocean!

ABOUT “SAVE THE BUTTS”

“Save the Butts – Waste to Value” is the first sustainability initiative run in the UAE that adopts a Circular Economy approach to environmental pollution by converting discarded cigarette butts into a sustainable alternative to plywood. Through engaging with the private sector, educational institutions, and civil society, Goumbook collects and transforms the most littered item in the world into a value-added manufacturing material in partnership with two local start-ups. Supported by the Dubai Government, the campaign aims to educate the public about the dangers of cigarette butt pollution and ultimately achieve a behaviour change towards more responsible practices that are in line with environmental and resource protection.

As an environmental protection initiative, “Save the Butts” operates year-round in multiple stages: While the cooler months since its launch in February were perfect to get a lot of people engaged in hands-on participation and removing thousands of cigarette butts from beaches and residential areas in the process, with the heat setting in soon, we’ll shift our focus to the other leg of the campaign which is the annual commitment option. This form of ongoing collection is a scheme particularly suitable for office buildings, malls, hotels, and F&B outlets with smoking areas, where high volumes of cigarette butts accumulate on a regular basis. By becoming annual members of “Save the Butts”, corporates have the opportunity to channel their cigarette butts into the circular economy, offering a sustainable solution as part of their entity’s waste management plan. Goumbook supports its annual members with trainings, communication assets, a marketing toolkit as well as dedicated bins and storage containers branded with the company’s logo and “Save the Butts” key messages.

The ongoing collection process is remarkably straightforward: Cigarette butts that get discarded in either the existing ashtrays or designated “Save the Butts” bins on the premises, are simply emptied and stored in a dedicated sealed container on site by the facility management team. Periodically, once the container is filled, a pick-up by the waste collection partner is requested comfortably via their mobile app. The cigarettes are collected, and the storage container is returned to the company. Participating companies receive

their monthly impact report, and their cigarette waste contributes to the production of a sustainable construction material by our manufacturing partner.

Do you also want the cigarette waste collected from your company premises on a regular basis, knowing that not only it will not pollute the environment, but it will even be recovered as a multi-use construction material manufactured entirely from waste? Then the “Save the Butts” annual commitment might be right for you.

Do you represent a company that is looking to engage with youths or the community? Reach out to us at ask@goumbook.com to find out how you can sponsor clean-up events and put your brand on the map as one of the supporters of sustainable, circular solutions.

www.goumbook.com/save-the-butts



THE UAE'S FIRST-EVER PADI ADAPTIVE DIVER TRAINING HELD ALONGSIDE PEOPLE OF DETERMINATION

BY **RAJANI GUPTA**



In March, Rajani Gupta, a scuba diving instructor with over 20 years of experience, worked with inclusion teams in Dubai to put a PADI Adaptive Dive programme together in the UAE. The event was held at Deep Dive Dubai to train ten instructors to enable people of determination to begin their diving journey and see its benefits for their wellbeing. This five-day intensive training was the first of its kind to include people of determination as volunteers.

The programme was conducted by Mr Fraser Bathgate, a paraplegic and founder of Deptherapy, who has spent over three decades developing adaptive techniques to suit the specific needs of those who have lost limbs, been paralysed, and suffered from post-traumatic stress disorder. Having endured the trauma of losing mobility during a climbing accident, Fraser has channelled his energy to convert disability to dive-ability for many after getting PADI certified in 1994. Today, Fraser is the first dive instructor in a wheelchair and is on a mission to help differently abled people see how much more they can move underwater.

Simple yet effective techniques can make the sport accessible to people with various challenges – physical and mental. For such individuals, diving can be therapeutic, motivating, and even life changing.

Under Mr Bathgate's guidance, ten instructor candidates along with two support divers – a rescue diver and an advanced open water diver – worked with volunteers with a range of impairments to apply their learnings. The state-of-the-art facility at Deep Dive Dubai

provided a safe and structured environment for all attendees.

While the main participants were the dive instructors and determined volunteers, this event was successful because of the immense support it received from the region. Al Bayan News and ARN Radio provided the media platform. Dubai Police's Hyperbaric Chamber Department conducted detailed medical tests on the determined volunteers to issue 'fit to dive' certificates. Out of twenty applications, eight of them met the criteria. Dr Alaa Sheta, a record holder for underwater wellbeing of individuals, joined in the water to supervise the volunteers' safety.

Representatives from Al Noor, Touch Dubai, IMInclusive, GEMS Group of Schools and Special Families Support signed up as volunteers. To name a few of them: Sujit Varghese, the official influencer of the 30x30 Dubai Challenge; Jessica Smith, a Paralympic runner and founder of Touch Dubai; Firas, a rescue diver intent on becoming a support diver for his son Thaeer Alhajja with Cerebral palsy; Holli, an Advanced Open Water diver and founder of Heroes of Hope.

The Zayed Search and Rescue Volunteers Team and The Nation Aquarium hosted exclusive dive experiences. Eden Mobility, a specialised taxi service where wheelchairs can be rolled in directly, was used to transport Mr Fraser to and from the venue. Emirates Diving Association generously gifted their reusable water bottles to all the participants and instructors. They were also instrumental in generating interest and awareness within the dive community. Aloft Hotel provided hospitality for the duration of

Mr Bathgate's stay and offered its facilities for coffee evenings where ScubaFun.ae hosted an insightful Q&A session.

It was heartening to see their reactions when they experienced diving with their instructors. Ms Nada, the first determined nurse in Dubai, was thrilled to discover how she could walk effortlessly underwater. Victor, who has a hearing impairment, was proud to have the upper hand underwater with his knowledge of sign language. Shameen, a member of the Al Noor staff, was inspired by the benefits of dive therapy. Johann and Venkatraman who have mild autism and Down's syndrome respectively, were soothed by the calmness of submersion.

The results were inspiring enough for Rajani to keep the programme going and to enhance Deptherapy in the region by offering periodic, hands-on training. She is also currently working on arranging a platform of dive centres and venues for training and accessible dive sites for differently abled individuals. Alongside Deep Dive Dubai; Divers Down, Bermuda Diving Center, Adventure Sports, Al Boom Diving, Dive Garage are a few dive centres who have agreed to support this initiative. The names are only growing and the region is looking at supporting Adaptive Divers with a warm welcome.

The UAE has always protected the rights and dignity of people of determination. We hope to be an empowering force and take this programme to institutions across the country.

For more details on upcoming programmes, please email us at rjscubafunae@gmail.com

FRANGIPANI LANGKAWI RESORT HOST DIVEHEART EVENT IN NORTHERN MALAYSIA



Langkawi is an archipelago made up of 99 islands on the west coast of Northern Malaysia. Surrounded by the Andaman Sea, the main island offers a mixture of picturesque paddy fields, jungle-clad hills, and tranquil waterfalls. The expansive shoreline is fringed by powder-fine sand and swaying coconut trees.

Langkawi is especially recognised for its excellent diving opportunities. This tropical gem also hides a treasure trove of other exciting holiday opportunities. From duty-free shopping outlets to kid-friendly attractions, Langkawi is an electrifying island that keeps visitors coming back for more.

"Disability is not a barrier for me to obtain a PADI Scuba diving license," said Nahla Ab Rahim, a Person with Disability (PwD) who has suffered from cerebral palsy (CP) since birth.

The 33-year-old from Putrajaya obtained a scuba diving license two years ago and is quite excited to go scuba diving as it is the best therapeutic method for her congenital disorder.

"As a CP sufferer, I also dive for mental therapy because being underwater feels like entering a new world. However, I still need a dive buddy who is skilled in adaptive techniques when

diving," she said after being an Adaptive Diver Candidate at the Special Diveheart Adaptive Techniques Training Programme hosted by Frangipani Resort Langkawi.

Nahla, the youngest of three siblings said she obtained the extreme sports license to ward off sceptical views of some people who often looked down on the ability of PwDs.

"Our PADI scuba diving license training is the same as for others, and I managed to prove that as disabled people, we can succeed like normal people if given the opportunity in any field, including extreme sports," she said.

Nahla said she used to be a government employee for 10 years but quit after being ridiculed by her ex-colleagues. She then decided to continue her studies in early childhood education at the Open University of Malaysia.

The two-day Special Adaptive Techniques Training Programme organised by DiveHeart Malaysia and PADI was attended by 15 staff members from the Rehabilitation Medicine Department of the University of Malaya Medical Centre (UMMC) and four Langkawi Scuba Club coaches.

DiveHeart Malaysia's Ambassador and Founder of Kids Scuba PADI Dive centre, Syed Abdul Rahman said, "The objective of the programme is to help the disabled participate in diving through the appropriate Adaptive Scuba Diving procedures. DiveHeart is a non-profit organisation based in Chicago, USA and it specifically aids people with disabilities in water therapy with scuba diving activities."

Our next Diveheart event will be held on the 3-5 of September with UMMC's rehabilitation medicine team held at Mimpi Resort Perhentian Island Terengganu, in Malaysia.

CONTACT INFO

For more information with regards to the event on 3-5 September, email:

HJ. SYED ABD RAHMAN

Ambassador Diveheart Malaysia

Email: Syed.rahman@diveheart.org

KIDS SCUBA

- PADI 5 Star Dive Centre
- PADI Youth Diver Education Award Dive Centre
- PADI Outstanding Contribution to Diving Industry Award Dive Centre

E-mail: kidsscuba@yahoo.com

Website: www.kidsscuba.com

PADI AND BLANCPAIN JOIN FORCES TO HELP PROTECT 30% OF THE OCEAN BY 2030



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PADI

**SEEK ADVENTURE.
SAVE THE OCEAN.™**

The Professional Association of Diving Instructors® (PADI®), the world's largest dive training organisation, and Swiss prestige watchmaker, Blancpain are joining forces with the aim to fundamentally increase the number of marine protected areas (MPAs) around the globe over the coming decade.

The organisations unveiled their collaborative partnership at the 9th Annual World Ocean Summit, the flagship event of the Economist Impact's World Ocean Initiative, attended by the world's top thought leaders from business, science, governmental and non-profit sectors – to tackle the greatest issues facing our blue planet.

"Blancpain and PADI have rich histories rooted in exploration and ocean conservation, inspiring both organisations to become powerful catalysts of planetary change," says Drew Richardson, President and Chief Executive Officer of PADI Worldwide. "Protecting our oceans is not only core to our ethos, but critical for our very survival. The world must pull together to stem the urgent crisis in our ocean and we have an immense opportunity to bring about change. We're proud to work alongside such a prominent partner who shares our optimistic outlook on the future and a deep commitment to further empowering our global community to seek adventure and save the ocean."

Together, PADI and Blancpain will work with local communities across the globe to expedite the establishment of MPAs. At the heart of the multi-year, multi-million-dollar initiative is the flagship citizen science programme, Adopt the Blue™ in which 6,600 registered PADI dive centres and resorts will be activated to develop the largest network of marine protected areas on the planet, enabling millions of PADI recreational divers to proactively engage in marine conservation at every opportunity.

Another keystone of the partnership is the formation of the Blancpain/PADI Community Grant, which funds critical conservation efforts in local communities. These grants will drive both ocean preservation as well as indigenous community support, serving as a force for good for both humanity and ocean.

"With our almost 70-year legacy of the Fifty Fathoms diving watch, Blancpain has developed not only a passion – but a deep commitment to our oceans," says Marc A. Hayek, President & CEO of Blancpain. "We're extremely proud of the role we've played in advancing global marine protection efforts and we are thrilled to be collaborating with PADI – and its community of divers – to bring about even more positive change."

The successful implementation of marine

protected areas is critical to the health of the world's largest and most important ecosystem and has been proven to restore biodiversity, build resilience to climate change and re-establish vulnerable species' populations.

"It will take a unified, dedicated effort to improve the state of the oceans. Together, we are directing the power of our organisations towards one of the most important – and urgent missions on the planet," states Richardson.



www.padi.com
www.blancpain.com

PARINEETI CHOPRA TEAMS UP WITH PADI TO CREATE OCEAN CHANGE



meditation. And it is the place I am immensely passionate about protecting."

"We are all equal underwater and all speak the same language. Over the years I have seen the changes that have taken place beneath the surface. During my time as a brand ambassador for Tourism Australia, I witnessed the bleaching and damage that has occurred to the Great Barrier Reef. I was so sad to see this and am now committed to being a diver with a purpose. I have also seen first-hand how marine reserves, like the ones in Sipadan, Malaysia and Palau, prove how valuable marine protected areas are. As a PADI Diver, I want to make sure that our entire blue planet gets the protection it deserves," continues Ms Chopra.

With over 67 million social media followers and having recently starred in the Netflix movie, *The Girl on the Train*, Chopra joins an elite group of celebrity influencers determined to take personal action and create real change for healthier oceans. Spending nearly all her free time diving around the world, Chopra shares her love for the ocean with her fans, as diving is an important part of her life that allows her to return to nature and reset. She will work with PADI to encourage others to experience the beautiful world underwater as PADI Divers and join her in helping to achieve balance between humanity and the ocean.

"PADI created the AmbassaDiver programme to support extraordinary divers who dedicate their lives to illuminating the path that leads from curiosity, exploration and discovery, to understanding, stewardship and action. Ms Chopra is playing a very important role in ocean conservation, lighting the way for others to become divers themselves and mobilising communities worldwide to seek adventure and save the ocean with her," continues Valette Wirth.

Ms Chopra has big plans for 2022 – including becoming a real-life PADI Mermaid and taking part in citizen science projects during her dive trips around the world.




PADI® is thrilled to announce an exceptional PADI AmbassaDiver™: Indian actress, singer and PADI Advanced Open Water Diver Parineeti Chopra. "A PADI AmbassaDiver is someone who is passionate about using their force for good to encourage others to protect our blue planet," says Kristin Valette Wirth, Chief Brand and Membership Officer. "We could not have found a more respected and authentic partner as Ms Chopra, a long time ocean lover; to advance our shared mission of saving the ocean. She is unmatched as a shining example of how to protect what you love – and inspire others to do the same."

Chopra, who has always loved the ocean, experienced the magic beneath the surface

in 2013 when she took her first breath underwater in Bali. As soon as she surfaced from that dive, she was hooked, and protecting the ocean became very personal for her; receiving her PADI Open Water Diver certification later that year in Palau. Since then, she has inspired others around the world, from her family and friends to fans in India to try scuba diving so they can join her in seeking adventure and saving the ocean.

"The first time I came up to the surface after diving, I was crying because it was such a life-changing experience," says Ms Chopra. "It is now something I can't live without. I make sure I do a diving trip every three months despite my work schedule because it is my form of

FOLLOW CHOPRA'S DIVE ADVENTURES, PROJECTS AND CONSERVATION EFFORTS WITH PADI

 www.instagram.com/parineetichopra
 www.facebook.com/ParineetiChopraOfficial
 www.twitter.com/parineetichopra

To learn more about Chopra and the rest of the PADI AmbassaDiver team visit: www.padi.com/ambassadivers.

REEF CHECK WITH EDA

ECODIVER TRAINING FOR EDA MEMBERS

FEATURE **LANIA SHAWKI MOSTAFA** UNDERWATER PHOTOS **GORDON T. SMITH**



Rania Shawki Mostafa laying the transect line at the beginning of a survey in Dibba.

I've always been fascinated by the underwater world, and after years of diving for fun, I wanted to take my passion to another level. I had memorised all the fish guide books and knew the names of most of the things I would see while diving. During one dive, I started to notice some bleached and damaged coral, and wanted to learn more. If anyone has seen bleached coral underwater; you know that it's a very sad, sobering and scary sight. What made them bleach? Will they survive? Is there anything I can do about it?

Luckily, at that time, Rita Bento who was EDA's marine biologist back in the day, was running the first Reef Check EcoDiver certification course and I signed up. Together with a few other EDA members, we learned how to identify the indicator fish which represent a healthy reef in the Indo-Pacific region. We also learned about corals, bleaching, and how to identify the different types of corals, substrates and invertebrates. I was impressed at how relatively easy it was to follow the methodology of Reef Check, not yet having a formal marine biology education, I could still contribute toward collecting the data for the survey. And it was really interesting to learn more about the underwater world.

After the theory part of the course, (and a really fun exam), we spent one day in Dibba, Fujairah to do our first underwater survey. Rita jumped in first and laid the transect, which is like a long measuring tape, along the dive site. We split into pairs and formed 3 teams: one group was counting the indicator fish which they saw (Fish Transect), the second pair was focused on any invertebrates along the transect (Invertebrates Transect), and the third was looking at the types of substrates along the line (Substrates Transect). We also recorded if we saw any damage from boats, fishing activity, or trash. We had slates to note what we saw during the dive, and at the end of the dive, we sat together and shared back the numbers and our observations. All the information we collected was then collated into a report which Rita prepared and sent to Reef Check as part of the global efforts to monitor coral reefs all over the world.

After participating in a few more surveys with Rita, she asked if I wanted to become a trainer and help others discover more about reefs. I thought, this is great! I can combine my experience as a trainer/facilitator, and my passion for diving to make a positive contribution to the community in the UAE,

and to the environment. I also started to notice that I would see things on my dives about corals, and I would recognise the fish from what I had learned in the EcoDiver course. It gave me a different perspective on reefs, as if I was wearing a completely new mask. It also helped me practice my buoyancy underwater, and become a better diver!

As a Reef Check Trainer, I now get to train other divers and lead surveys together with you, our EDA members. Now that I'm back in Dubai, I'm really excited that we can offer more Reef Check EcoDiver sessions, and also to restart the monthly surveys in Fujairah.

WHAT CAN YOU DO NEXT?

If you were previously trained in Reef Check and would like a refresher to join one of our upcoming surveys, please reach out to us. We can arrange a virtual or in-person session to get you back into the water and ready to go. We're looking forward to seeing you over, and under water!

ABOUT REEF CHECK

If you are interested in knowing more about our marine environment, collecting data from our local reefs and getting more out of your



EDA memories from our archives – Reef Check courses and surveys with Rita Bento from 2012.

dives, this may be what you are looking for. When you join a Reef Check EcoDiver training, you will learn about our local ecosystems and you will be able to participate in our regular survey dives which will help us to understand the threats our corals are facing by providing important data.

By joining our Reef Check monitoring team, you can help monitor and track the world's reefs. Reefs, both tropical and temperate, are in a state of crisis, today they look vastly different from what they did 30 years ago. Big fish are scarce and some marine creatures have disappeared completely. Over 45% of the world's reefs are severely threatened by human activities including overfishing, pollution and global warming. By becoming a certified Reef Check diver, you can help track the health of our reefs by participating in monitoring surveys and conservation worldwide.

Until now, EDA has trained more than 100 divers with Reef Check methodology. By dividing the divers in different Reef Check teams, we are able to collect data at different sites in the UAE, with particular focus in the Marine Protected Areas (MPAs) in Dibba and Al Aqah, as well as in Abu Dhabi. By collecting data on a regular basis, EDA will be able to monitor the status of coral reefs in the UAE, which will help us understand the principal threats that our marine environment is facing

at the moment, and the actions that need to be implemented in order to re-establish a healthy ecosystem in the area.

THE TRAINING

The training takes place over 4 sessions/days:

- There are three classroom sessions to cover. You will become familiar with many of the Indo-Pacific's marine species of fish, invertebrates and will be trained to identify different kinds of substrates, such as corals and sponges.
- One day consists of one underwater exam, and three classroom exams.

INCLUDED

Training materials (manual, field guide flash cards, Reef Check ID certification) are included in the training price. For the underwater exam, only tanks will be provided, each student will have to arrange for their own dive gear.

QUALIFICATION

To join the Reef Check training, the following is required:

- 15+ years old
- Open Water diver (minimum)
- At least 25 logged dives, including 2 dives in the past 12 months

DATES AND SCHEDULE: To be confirmed

- 2-3 virtual evening classroom sessions during weekdays (6pm-9pm)

- 1 day over a weekend, including dive and exam in Fujairah with Divers Down.

Our East Coast diver training will be done with our Reef Check Partner, Divers Down located in the Miramar Al Aqah Beach Resort.



Reef Check
UNITED ARAB EMIRATES

TAKE THE REEF CHECK CERTIFICATION COURSE

Reef Check Certification Course for Valid EDA Members: AED800

(To renew or obtain EDA membership: www.emiratesdiving.com/membership-form/)

Diver Costs to Pay Separately

Equipment Rental: AED40

Added Fun Dive: AED90

Monthly Reef Check Surveys

For certified Reef Check Divers: AED100

If you would like to join our upcoming sessions, please email Rania at:

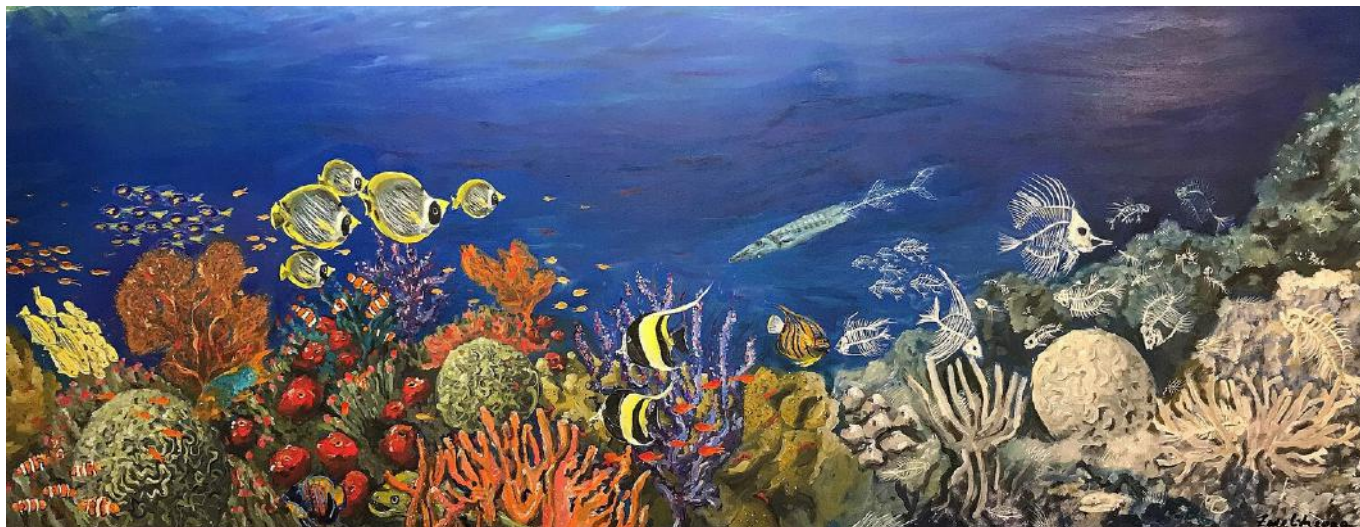
reefcheck@emiratesdiving.com

For more information, please visit:

www.reefcheck.org

www.emiratesdiving.com/events/reefcheck

BRUCE ZARETSKY ART PROCEEDS TO BENEFIT REEF CHECK FOUNDATION



Bruce Zaretsky is many things – a landscape designer; a builder of healing gardens, a talented painter; and a conservationist. A lifelong New Yorker, Bruce has always had a deep respect and admiration for the natural world and all its inhabitants. As he explored the natural world, he learned more about the threats facing our precious ecosystems and came up with a very creative way to use his unique talent to shine a light on the planet's perils through his series Beautiful Extinction. With subjects ranging from

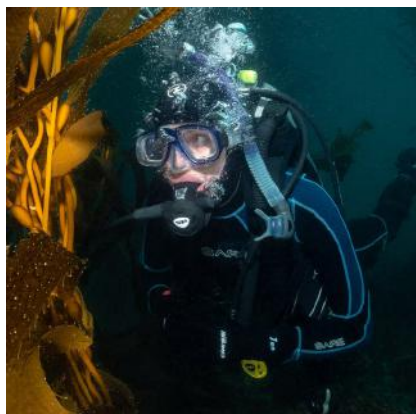
polar bears, to bees, to birds, to the charismatic megafauna of Africa, Bruce has no shortage of inspiration. Bruce has generously committed a portion of the proceeds from the sale of each piece in the series to an organisation dedicated to conserving the subject of the painting. Reef Check was honoured to be the beneficiary of the proceeds from Beautiful Extinction: Reef Madness pictured above. The piece serves as both a warning and a reminder of what could be for coral reefs, depending on

the decisions we make. We invite you to visit Bruce's website to see more of his pieces and reflect on their message. We are so grateful to Bruce for reaching out to us and supporting Reef Check with his time, talent and treasure – thank you, Bruce!

www.BruceZaretskyArt.com
www.ZaretskyAssociates.com

NEW STAFF AND NEW PHASE FOR NORTH COAST KELP RESTORATION PROJECT

BY **MORGAN MURPHY-CANNELLA, REEF CHECK KELP RESTORATION COORDINATOR**



We proudly announce that we have added two new members to the Reef Check team, Ian Butler and Lauren Nutt. Ian and Lauren are the new Restoration Technicians based in Northern California and will be assisting the ongoing kelp restoration project based in Mendocino County. The restoration project started in 2020 in collaboration with the Ocean Protection Council (OPC), California

Department of Fish and Wildlife (CDFW), and the commercial urchin divers of Fort Bragg. Together, we have successfully removed over 40,000 lbs of purple urchin from two designated restoration areas: Noyo Bay and Albion Cove. We have seen early signs of success, and we are highlighting our findings in a full report that will be submitted to OPC later this month. Stay tuned for more

information on results!

Now we are entering Phase 2 of the restoration project with a new collaboration with The Nature Conservancy (TNC), who is exploring how urchin traps can assist in kelp restoration and urchin removals. Reef Check will be monitoring this effort in various locations in Mendocino County.

REEF CHECK EXPANDS INTO WASHINGTON STATE



Kelp forests in Washington have been in decline over the last 100 years – with a 36% decline in kelp forests in the San Juan Islands in less than ten years, 80% lost in south Puget Sound the last 50 years, and disappearance of all bull kelp beds around Bainbridge Island as of 2015. Scientists and managers lack the data needed to fully understand the causes of this situation. Reef Check is working in conjunction with Puget Sound Restoration Fund (PSRF) and the Paul G. Allen Family Foundation to address this issue.

We are a part of the Kelp Forest Monitoring Project funded by the Paul G. Allen Family Foundation. This project includes a network of partnerships including PSRF, Reef Check, Marauder Robotics and The Bay Foundation. The goal of this project is to understand how to achieve a higher level of kelp health and resilience that leads to better management and conservation of this fragile but mighty

ecosystem, using a variety of methods.

We have been working closely with PSRF to build a base of volunteer citizen science divers and establish a network of monitoring sites throughout the Salish Sea. PSRF focuses on structure forming species, Olympia oysters and bull kelp, and habitat enhancing species, such as pinto abalone. Their partnership has been a crucial part of determining the Reef Check indicator species for Puget Sound and their local knowledge of current and historical kelp beds will be invaluable in determining our survey sites.

To carry out this effort, we welcome our new Washington Regional Manager, Jackie Selbitschka. Jackie graduated from the University of California Santa Cruz with a BA in Marine Biology and AAUS scientific diver certification. Her background is in marine science education and she has been a NAUI instructor for 10

years. Her passion is to share the incredible life that lives underwater so that others are inspired to care for and protect our marine habitats. She is excited to bring this passion to training Reef Check citizen science divers in Puget Sound.

Reef Check is in the middle of training the first round of Washington divers this spring. We have 15-20 monitoring sites that will be monitored this inaugural season selected with input from the Washington Department of Natural Resources and Tribal groups. All training is comparable to the California and Oregon protocols to create a network of monitoring sites up and down the west coast.

While spring training sessions are underway to become a Reef Check Washington citizen scientist diver, you can find information about prerequisites and our future training schedule here: www.reefcheck.org/california-program/training-schedule/

STEWARDED THE NEXT RED SEA CORAL REEF ADVOCATES

Reef Check Red Sea Coordinator and EcoDiver Course Director Dr Mohammed M. A. Kotb has been busy assisting the region's up and coming researchers and coral reef advocates. As a professor of coral reef ecology at Egypt's Suez Canal University, he is currently supervising two MSc projects on coral diseases on Egyptian Red Sea reefs as they pertain to the negative effects climate change has on reefs.

In addition, Dr Kotb teaches an underwater survey methods course at the university,

as well as at several training workshops for different sectors, especially the Red Sea Protectorates. Dr Kotb always introduces the Reef Check methodology as the common method used in the world and in the Red Sea and encourages all participants to submit their data to Reef Check's global database, so that they can be proud to know that they are actively participating in conserving their reefs.

If you would like to get involved, you can reach out to Dr Kotb at kotb13@gmail.com.





A full-page underwater photograph serves as the background. It depicts three divers in a pool. In the foreground, a diver with a camera and a blue regulator looks towards the viewer, making an 'L' hand signal. Behind them, another diver is visible, and further back, a third diver is partially seen. They are positioned next to a large, multi-colored brick wall that appears to be part of a submerged structure. The water is clear with some bubbles visible.

PADI ADAPTIVE TECHNIQUES SPECIALITY COURSE

FEATURE **SASKA L. MACNAB** UNDERWATER PHOTOGRAPHY **JESPER KJOLLER**

The experience of learning to scuba dive can be transforming! It opens up a new world of possibilities and opportunities for anyone. But, especially for those who are limited, restricted and challenged with so many other things considered 'simple' in life – the possibilities this sport offers can be life-changing.

COVER PHOTO: Two candidates assisting a volunteer to dive for the first time during the PADI Adaptive Techniques Speciality Course.



ABOVE: Fraser Bathgate performing a briefing on the Deep Dive Dubai pool deck; Fraser Bathgate age 22 in Scotland on a climbing expedition pre-accident; Fraser Bathgate on a dive boat pictured before a dive with his dive gear on ready to go; Fraser Bathgate and friend out in Khorfakkan in 1996 on a scuba diving trip.

“Once you choose hope, anything is possible.” – Christopher Reeve

The experience of learning to scuba dive can be transforming! It opens up a new world of possibilities and opportunities for anyone. But, especially for those who are limited, restricted and challenged with so many other things considered ‘simple’ in life – the possibilities this sport offers can be life-changing.

FRASER BATHGATE

In 1994, Fraser Bathgate became PADI’s first fully qualified scuba diving instructor in a wheelchair. He has since gone on to develop a unique ‘Adaptive Training’ course designed to inspire and train scuba divers and instructors to help make the wonders of scuba diving accessible to everyone – irrespective of their disabilities.

This year, Deep Dive Dubai had the honour of welcoming Fraser to our facility to teach scuba instructors and divers his Adaptive Training techniques. This is the extraordinary story of Fraser’s journey, from becoming wheelchair bound following an accident, to a chance opportunity which put him on the path to discovering how scuba diving can be

made accessible to all and to experience how scuba diving can open up a whole new world of opportunities and experiences for those with disabilities.

Fraser was a professional climber training for an expedition to the Himalayas when his accident occurred, and he suddenly became wheelchair bound at just 23 years old. At this point, he had lost the chance to fulfil his dream to climb the Himalayas and his hopes for the future were shattered, leaving him depressed with no direction for his future.

The journey to where Fraser is today was not an easy one. After the accident, Fraser struggled to come to terms with what had happened, and he slipped into a dark space where he saw no way to move forward with his life until 1992. That year changed Fraser’s life, it all started when his sister persuaded him to go on a holiday to Dubai. It was this trip to our own UAE land of possibilities, that turned Fraser’s life completely around.

Whilst in Dubai, one of his friends was taking his PADI Open Water Course and invited Fraser to watch. At the time, Fraser assumed that, being wheelchair bound, he would never be able to scuba dive himself, but it was

something new and different so nevertheless he went along to watch.

The surprise was that when Fraser arrived at the dive centre, the owners, Paul and Sarah questioned why he wasn’t also doing the course. Fraser was blown away; he didn’t even think it would be possible. Paul and Sarah encouraged him to try, explaining that his disability wouldn’t hold him back from experiencing life underwater – so he took the chance!

Fraser recalls how when he went for his medical to be certified as fit to dive, the Doctor laughingly said, “You are really trying to kill yourself aren’t you?” But the Doctor issued the certificate and Fraser eagerly returned to the dive centre to try going underwater for the first time. He said, “It was like a revelation! I had total and complete freedom”.

Within only a few weeks of beginning his underwater journey Fraser remembers feeling different – diving had transformed his life and he had become a totally new person with a positive attitude and a revival of hope! He had finally found his way out of the darkness.

Fraser recalls, “What was quite funny about



Candidates assisting one of the volunteers into the water, using Deep Dive Dubai's special water wheelchair.

the experience was that I passed and my friend had to resit his!"

From that moment on, nothing could hold Fraser back! He continued straight on to his Advanced Open Water Course, and then subsequently took various specialities such as wreck diving. He soon persevered to achieve his Rescue Diver certification which threw up multiple challenges, but each time, his friends, family, the dive centre, and most importantly, his instructor, encouraged him to continue to find ways to overcome the challenges and be successful at each step.

At this point Fraser had found his new passion and was determined not to stop there. He spent the next six months practising to improve his fin kicks before setting out to achieve his Divemaster certification which is a challenging and difficult course even for people without disabilities.

Once again, Paul and Sarah were proved right – Fraser's disability had not limited or prevented him achieving everything he wanted. Of course there were challenges, and some days were better than others – but Fraser never gave up and overcame every obstacle put in front of him!

At the time of embarking on his biggest challenge yet, the IDC (Instructor Development Course), Paul and Sarah had offered Fraser a job at the dive centre as Front of House Manager. Fraser had fully regained his life back. He affectionately says, "My mum was so happy she had got her son back. I was like a dog with a new toy."

Back in the early to mid 1990s, the IDC was very different to what it is now. Fraser was told he wouldn't get any special treatment and would have to achieve everything a person without disabilities needed to. But Fraser was not deterred, "I wanted to do it that way and show I had done it, and done it well if not better".

Today, Fraser considers himself lucky, because had he not landed the way he did in his accident, he would not be here today, making such an incredible difference in the world. When Fraser passed his IDC, it was an industry game changer. Fraser had become the world's first Scuba Diving Instructor in a wheelchair! He credits his success with the overwhelming support and encouragement he got from Paul, Sarah, and the team. He recalls, "Paul and Sarah gave us the best grounding. Their teachings and message has stayed with us and we are all still close".

Over the years, many have been in awe of Fraser, his determination and what he has accomplished by helping to transform scuba diving and make it accessible for the disabled.

He is now a prominent figure in the International Association of Handicapped Divers (IAHD), was crucial in setting up the agencies, Disabled Divers International and Dephterapy, and now acts as a pioneering member of the PADI Adaptive Techniques Programme.

THE ADAPTIVE PROGRAMME

In March 2022, thirteen scuba instructors at Deep Dive Dubai became candidates on a specialist five day course run by Fraser to launch a new era in UAE scuba diving with a mission to make it, "Accessible to All".

It was an honour for everyone to be able to take part in this extraordinary opportunity to learn from Fraser, meet everyone involved and achieve our PADI Adaptive Techniques Speciality certifications.

Fraser initially taught us about adaptive diving techniques and the importance of creating a community willing and wanting accessibility for all. Throughout the programme, we were



Saska L. Macnab and Moustafa Asem performing underwater skills during the PADI Adaptive Techniques Speciality Course, supervised by Fraser Bathgate pictured in the back.

tasked with several activities where we had the chance to put ourselves in another person's shoes for a short period. We were blindfolded, or placed in wheelchairs and trialled swimming and performing a CESA (Controlled Emergency Swimming Ascent) without the use of our legs.

These activities brought out a range of emotions and offered a small insight into the realities of how much so many of us take for granted. We were also able to see and feel the freedom that being in the water can give people with disabilities.

The Adaptive Programme became very real when we were joined at Deep Dive Dubai by a group of incredible volunteers who were all people with disabilities.

Although some nerves were initially present, the warmth that came from seeing the volunteers light up with excitement trying something new and which allowed them to view the possibilities open to them, was something truly special and one we shall never forget. We could see the look of joy in their eyes and knew they were experiencing the same emotions Fraser had described feeling

when he first entered the water – they were finding true freedom.

One of the volunteers, had brought her young son with her to watch and the first thing he said to her after her dive was, "I'm proud of you mummy". Nothing can be better than that feeling. We had not only given the opportunity to someone to feel like they were 'normal', but her son had the chance to see her be brave and not let her disability stand in the way of enjoying and living her life.

Provided an individual can obtain a medical to be cleared to dive and is able to equalise and secure a regulator in their mouth, they can embark on this adventure. No specialist equipment such as an adaptive wheelchair or prosthetic is required – although such things can be used if an individual prefers.

The key message Fraser shared with us about the Adaptive Programme, is that the relationship between an instructor or support diver and the person learning, needs to be built on trust and strong communication, to allow a positive progression into the diving world.

Every person is different and will face their

own challenges, but no-one should be judged differently – it is only the approach to accomplishing and overcoming the challenges that takes some open-minded thinking and adaptation. For example, the dreaded mask clearing skill, disliked by most, is achieved by completing the performance requirement of clearing the mask of water: It does not state that it must be achieved by using both hands and with two fingers at the top of the mask to press and blow out through the nose – this is just one method that is predominately taught and used.

If an individual has lost the use of or does not have their hand anymore, the skill can easily be accomplished by using their forearm instead to press the mask against the forehead – the key is, that provided they can successfully clear their mask, they have completed this skill.

What is so special about this, is that not only can it open a dive professional's mind to how they can adapt their teaching methods to each student, but it opens the door to so many that thought they could never and would never be able to experience what it is like to breathe under water.



Fraser Bathgate is off-centre to the right with the group of candidates and volunteers during the PADI Adaptive Techniques Speciality Course.

It is not just PADI Professionals who can receive training on how to teach people with different abilities, anyone who is willing and interested, including family members, friends and carers can learn to become an Adaptive Support Diver and become a critical individual in the process of making the underwater world more accessible for others. A Support Diver will undertake the journey alongside the person who is looking to find adventure and freedom in the world of diving, and get to witness first hand, the joy that it brings. The journey will take time, careful planning, preparation, and a lot of dedication, however if we can grow a strong community of like-minded individuals here in the UAE, motivated to keep Access to All going, we will be embarking on an incredible opportunity to change the lives of so many people, their families and their friends through one passion – the love of diving.

LOOKING TO THE FUTURE

The Programme conducted by Fraser at Deep Dive Dubai hopes to pave the way for a bigger movement to create more dive centres and a team of instructors who can actively implement Access for All to dive in the UAE.

Deep Dive Dubai aims to place the UAE at the forefront of this initiative, being the first centre to be staffed with a team of specialist instructors trained to enable Access for All, and leading the way for the establishment of many more centres in the future.

The Deep Dive Dubai facility was carefully designed from the outset to cater to all, having a gently sloped pool entrance and flat surfaces. It also has lifts, accessibility toilets and showers as well as design features created to suit the height of wheelchair users.

Fraser points out that the adaptive training market in the UAE represents an important area of development for dive centres and for the scuba industry as a whole.

New facilities and centres can be encouraged by this example to consider how their space can be designed and developed to enable easy access and use for everyone and not make people with disabilities feel excluded.

The UAE can be regarded as one of the world's leading destinations for those with disabilities as its buildings, transport and infrastructure already cater extraordinarily

well to visitors and residents, having specially adapted taxis and buses, lifts in most buildings, wide corridors, and many flat wide paved areas for exploring the country's many attractions. It is hoped that this initiative shall place it even more at the forefront by creating a greater awareness in many other industries – inspiring them to create spaces that are accessible to all.

MORE INFORMATION

To find out more about Access for All, visit their website:

www.accessforall.co/

To learn how to be an Adaptive Support Diver, email:

courses@deepdivedubai.com

To book an Adaptive Dive at Deep Dive Dubai, email:

info@deepdivedubai.com

To learn more about PADI Adaptive Programmes, visit:

www.padi.com/courses/adaptive-techniques

www.padi.com/courses/adaptive-support-diver



A YEAR'S WORTH OF RESULTS

SURVEYING DUBAI WATERS FOR SMALL CETACEANS

FEATURE **BRYANA COPE & ADA NATOLI** – UAE DOLPHIN PROJECT INITIATIVE & ZAYED UNIVERSITY
PHOTOGRAPHY **ADA NATOLI** – UAE DOLPHIN PROJECT

After one year of surveying Dubai waters, the UAE Dolphin Project initiative and Zayed University have produced some interesting and vital results. The survey started in February of 2021 with the main objective to collect data to assess the population of Indian Ocean humpback dolphins, Indo-Pacific bottlenose dolphins, and Indo-Pacific finless porpoises.



COVER PHOTO: Indo Pacific Bottlenose Dolphins, mother and her calf. The adult female is T032 who was identified for the first time during our 2014 survey. In 2021, she appeared with a calf which we have now confirmed, is a female! They have both been encountered a number of times this year.



FROM L-R: An Indo-Pacific Finless Porpoise exhibiting the unusual white frontal dorsal colouration; Indo-Pacific Bottlenose Dolphins, mother and her calf; An Indo-Pacific Bottlenose Dolphin in clear feeding behaviour; Another Indo-Pacific Finless Porpoise exhibiting the dark dorsal colouration; A juvenile Bottlenose Dolphin performing a backward leap.

After one year of surveying Dubai waters, the UAE Dolphin Project initiative and Zayed University have produced some interesting and vital results. The survey started in February of 2021 with the main objective to collect data to assess the population of Indian Ocean humpback dolphins, Indo-Pacific bottlenose dolphins, and Indo-Pacific finless porpoises. A transect survey method was used in order to evenly search from Port Rashid to the Jebel Ali Marine Sanctuary, and 20km offshore. Multiple types of data was collected during each outing, including environmental data, water quality, behavioural and photo identification data when encountering the animals. Throughout the year, 60 surveys were conducted totalling 272.5 hours of positive navigation, and 5,443.91km. Overall 18 sightings of small cetaceans, 12 sightings of bottlenose dolphins, and 6 sightings of finless porpoises were recorded for a total of 250 individuals overall. A worrying outcome of the survey was the absence of the Indian Ocean humpback dolphins, that during the past survey in 2014 was among the species most frequently observed in the area. This species is listed as “Endangered” by the IUCN Red List as its decline has been observed across all its geographic range.

Water quality data was collected throughout the year and used to identify seasonal changes. There was a spike in temperature in mid-May which went back down in November. Thus, summer was defined as mid-May to mid-

November, and winter as mid-November to mid-May. The average water temperature for summer was 34°C, and 26.36°C in the winter. This could be the reason there were only 4 sightings during the summer, but more data will need to be collected to determine this.

Photographic information of the dolphin and porpoises encountered was the important data collected during the sightings. Over 11,000 photos were collected across the 18 encounters. During each sighting, pictures of the dorsal fin of all individuals present were collected. Individual dolphins are recognisable from the shape, nicks and scars on their dorsal fin that works like a natural tag. So, analysing and matching the pictures in each sighting – across sightings and across years – scientists can estimate how many individuals were actually present in the group, how many individuals were resighted across sightings, and how frequently. Furthermore, it is possible to estimate the social structure of the groups, tracking the frequency of the same individuals occurring in the same group. Ultimately, matching individuals to a previous year’s Photo Identification catalogue, created during the 2014 survey, it is possible to understand whether these groups are actually long-term residents.

There were quite a few sightings of the same individuals throughout the year. This indicates that the population is likely to be small, as the greater the population, the less likely it is to

sight the same individuals repeatedly. Several individuals were sighted in the same sighting and in multiple sightings, and some individuals were sighted with associated young. We were also able to match 14 individuals so far with the 2014 catalogue, suggesting that the same group is regularly using Dubai waters on a long-term basis, across 8 years! This number is likely to increase once the process of sorting and matching the photos is concluded.

During the 18 sightings, the team spent a total of 24 hours with the animals, during which behavioural data was also collected. Using the field estimates, group composition was calculated to show that total sightings consisted of 80% adults, 13% juveniles and 7% calves. For bottlenose dolphins, the majority of the time the groups were seen travelling (80%) but were also observed socialising (9%) and feeding (2%). Finless porpoises were also observed mainly travelling (60%) but also feeding (17%). This may indicate that finless porpoises use the area more for feeding than bottlenose dolphins, or that we couldn’t observe the bottlenose dolphins feeding if they were hunting in deeper waters where we can’t identify the behaviour. Finless porpoises were mainly observed inshore, most frequently between The World Islands and the mainland. On the other hand, bottlenose dolphins were observed mainly offshore. This suggests that both the inshore and offshore areas of Dubai are vital to the habitat of both species.



FROM L-R: A volunteer assisting in data collection during a survey; A juvenile and 2 adult Socotra cormorants flying in proximity of The World Islands; Green turtles mating; A blacktip reef shark; Sea snakes mating; A juvenile Hawksbill turtle rescued by the team during a survey.

Although finless porpoises do not have a dorsal fin, photographic information was used mainly to confirm the species and the presence of calves. However, interestingly the colouration observed was not a usual colouration for finless porpoises compared worldwide. Both calves and adults had a characteristic white colouration on the underside of the body, underneath the mouth. This colour has been seen in Kuwait and further comparisons with the worldwide populations to investigate this characteristic is in progress.

Citizen science data collection was another important source of information. As the team can only go out so many times, it is vital that citizens report their sightings so data can be expanded on. Over the course of the year, 92 sightings were reported from the public and have been validated by experts, out of 74 of those sightings, a species has been confirmed. These included the three main species as well as a few rare species. We reported on these in the last issue as they were very exciting! A pod of killer whales seen offshore, a Bryde's whale in Dubai Marina Harbour, as well as an additional Bryde's whale and a false killer whale. This data is vital to showing just how many species occur in Dubai waters! Thank you again to all who have reported your sightings and please keep sending them in to us at sightings@uaedolphinproject.org. We couldn't get these results without you!

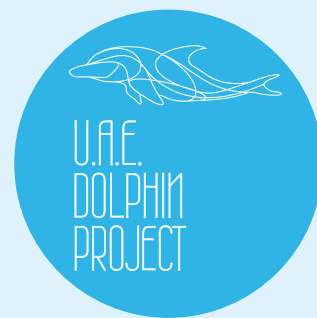
The survey also allowed us to collect crucial

data on other important marine megafauna: Socotra cormorants, sea turtles and sea snakes. There were a handful of sightings of sharks, rays and other rare birds as well. Overall there were 589 sightings of Socotra cormorants, some sightings had thousands of birds, and some as little as just one. There were 68 sightings of sea turtles, some of which were observed mating, along with 153 sightings of sea snakes who were also observed mating a number of times! The team also rescued a small Hawksbill turtle that was covered in barnacles and unable to swim. The turtle was taken to the Dubai Turtle Rehabilitation Project. You can report any stranded turtles to them at **800-Turtle!**

All this data provided information to better identifying key areas of habitat use for all the species recorded. Sea turtles were observed throughout the entire survey area, whereas sea snakes were most often seen offshore, and Socotra cormorants were mainly observed inshore. They also confirmed that Dubai waters are important habitats for a variety of species both for feeding and breeding. This data is currently being reviewed and analysed for multiple scientific papers by the lead researcher, Dr Ada Natoli and will be vital to showcasing the importance of protecting these waters for generations of multiple marine species.

After a very successful year, the UAE Dolphin Project initiative is continuing to survey the

area with hopes of expanding even further offshore and north to Deira. We hope that you continue to support the project in any capacity that you can.



WHAT YOU CAN DO TO HELP REPORT YOUR SIGHTINGS AT:

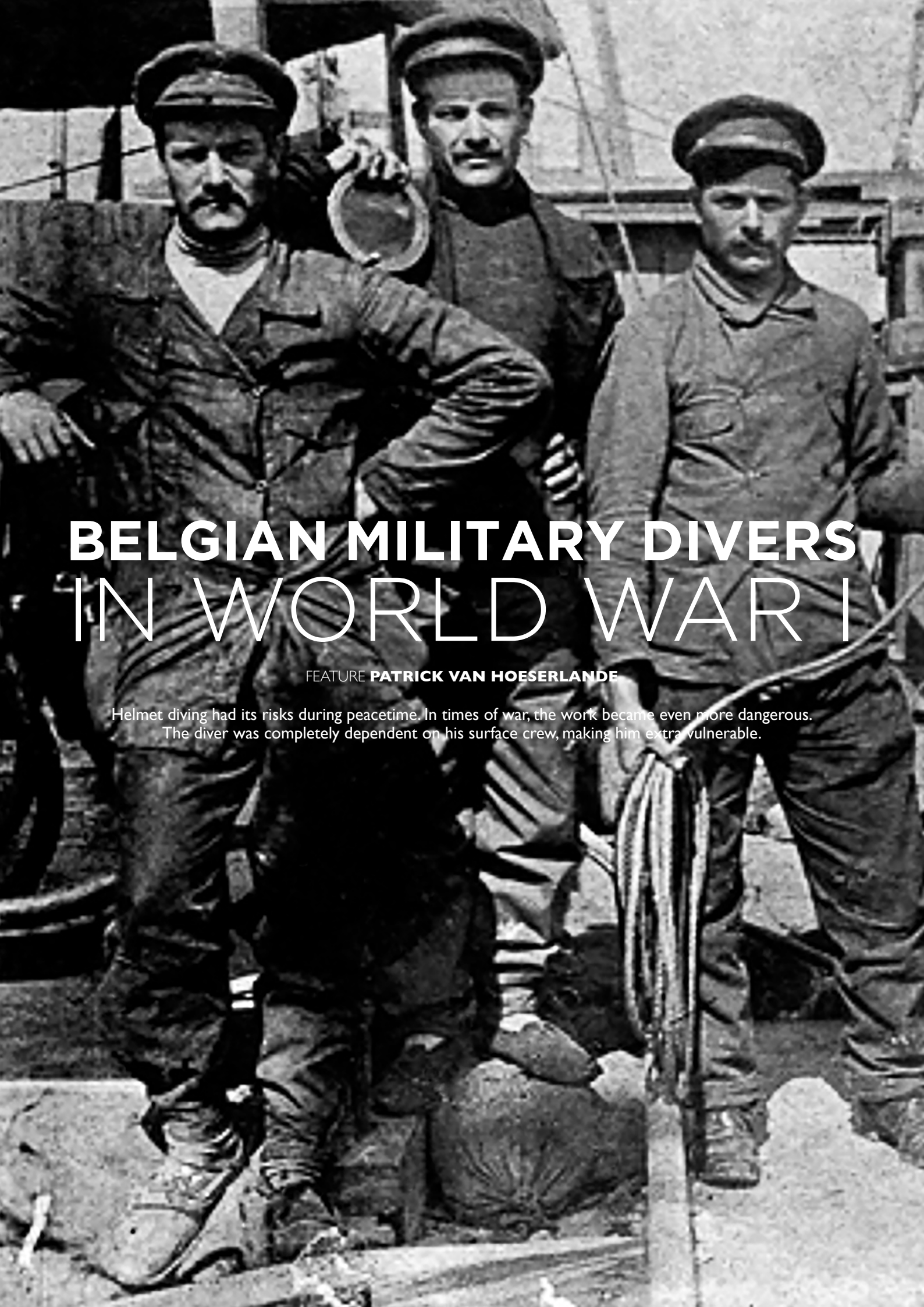
www.uaedolphinproject.org

Or via Facebook, Instagram, Whatsapp
on 050 955 1742, or Call on 056 671 7164

To join the Research Team, you can email
us at: team@uaedolphinproject.org

THANK YOU

A big thank you to our sponsors of the 2021-2022 survey, Atlantis the Palm, F3 Marine and Zayed University, and to the Emirates Diving Association for continuing to highlight our project in their magazine!



BELGIAN MILITARY DIVERS IN WORLD WAR I

FEATURE **PATRICK VAN HOESERLANDE**

Helmet diving had its risks during peacetime. In times of war, the work became even more dangerous. The diver was completely dependent on his surface crew, making him extra vulnerable.





L-R: Helmet Diver (1915); A helmet diver descends from the hull damaged by a torpedo by the English auxiliary cruiser, the 'Bladart' (place unknown, 1917), photo by Spaarnestad; The power of water.

In October 1914, the exhausted Belgian army stood with its back to the French border, with the North Sea to its left. The German steamroller threatened to take over the last piece of national territory. At that crucial moment, a handful of engineering officers and soldiers aided by a few local civilians, managed to flood the IJzer (Yser) plain. And miraculously, the water stopped the invaders.

The floods of the Yser are a well-known achievement from the First World War, even more so a hundred years later. The details live on in the history books, but the floodings of the Creek of Nieuwendamme and those of the Yser plain via the spillway of the Noordvaart, enabled our weary troops to stop the German advances. Although these manoeuvres saved our country from complete occupation, the operation is incorrectly identified as the 'Inundations of the Yser'. This operation was much more than these initial activities: it was the management of the water level to avoid the flooding of our defensive lines, the maintenance of the desired levels required, the construction of emergency dikes with millions of sandbags, the maintenance and repair of the hydraulic establishments undermined by the water which was destroyed by German artillery. The activities to support the flooding continued for four years.

The author Mignolet ends his book with the flooding of the Yser Plain described in the last paragraph. It was as if his message was addressed to me, because I did indeed have this narrow view of the whole operation. My great-grandfather and his brother may have fought at that watery front, but my knowledge of the fight with and against the water was very limited. I was convinced I had paid close attention during this part in my military history course. I was disillusioned.

I don't aim to earn redemption for my gap in knowledge by informing you, the reader, via this article about the complexity and scope of this operation, nor to tell you about known civilian heroes such as Karel Cogge or Hendrik Geerart. My purpose in sharing this article, is to highlight the unknown helmet divers who did all the heroic underwater work. Like so many soldiers, their names, their individual exploits and their sacrifices gradually faded away like the poppies on Flanders fields. I just want to blow away the dust of time to make these divers shine.

What I initially thought was an easy task, turned out to be much harder. Information about the military helmet divers turned out to be very limited. Inquiries at the Defence Library, the Royal Museum of Military History, and even the Royal Military School yielded

little information.

MILITARY HELMET DIVERS

The first mention of divers dates from 1902. Divers were part of the special 'Compagnie Pontonniers' in the Saint-Anna barracks in Antwerp. From 1913, there were three sections of helmet divers working in the 'Compagnie Sapeurs' near the fortifications of Antwerp. In 1915, after the surrender of the Antwerp fortresses in 1914, these divers were deployed in Calais with the newly formed 'Compagnie Pontonniers'. However, it is the three teams of helmet divers at the 'Compagnie Sapeurs-Mariniers', founded on September 1, 1915, who carried out the dives on the locks and performed other hydraulic works.

The start of the operation might have stopped the German army – this did not mean that the engineering unit responsible for its execution received full support. During the years of war, Commandant Robert Thys and his men usually had to improvise to carry out their missions. In the helmet divers' workshop in Veurne, repairs were made with homemade tools and recovered machines were entrusted to Private Matthys, a specialist in the field.

A feat of ingenuity was the installation of a telephone device in the diving helmets. As far as I could find out, this was a first. Thanks to



L-R: Commandant Robert Thys; The flooded Yser Plain (October 1914) from the Collection of the (Belgian) Royal Museum of the Armed Forces and Military History; The divers workshop.

the competencies of Commandant Umé of the telegraph operators, it became possible to maintain permanent verbal contact between the diver and the surface crew. This happened for the first time on April 15, 1915 during the underwater checks at the Gemeentebrug and the Perebrug on the track from Houthem to Ghyvelde. This allowed the diver to immediately report his discoveries and carry out instructions from the chief without having to surface. This meant a gain in time, and in times of war, it lowered risks.

The hydraulic infrastructure such as locks, dams, and dikes wore out much faster than planned as they were not designed for continuous operations or the unplanned direction of the water's flow. Divers had to regularly check the structures for cracks, fissures, seepage, etc. When they identified problems, they usually also had to take care of the repairs.

We can determine the kind of work divers were used for from the Commandant's diary: (October 12, 1915) 'Helmet divers notice a large crack in the abutment of the Ypres lock on the Yser, and immediately started making a 40cm concrete slab.'

(October 18, 1915) 'During an inspection at the lock in Veurne, helmet divers notice seepage at low tide. During the next few days,

they seal the cracks with concrete.'

Helmet diving had its risks during peacetime. In times of war, the work became even more dangerous. The diver was completely dependent on his surface crew, making him extra vulnerable.

The risk from diving activities during war was nicely outlined by a piece written by Commandant Thys:

'Imagine a dark night, two officers and a few divers [note: members of the dive crew were clearly all divers themselves] having to feel their way across the immense lock walls more than six metres high, in a complicated tangle of wooden beams, twisted pieces of iron, masonry rubble, and between countless funnels.

The gloomy night is disrupted by artillery fire and suddenly lit by flares. Bullets from machine guns pierce the air with a whistling sound. The slightest move can reveal our location. There is a formal ban on smoking or even covertly lighting a match.

We dress the diver; we place the lead weight on him, put the brass helmet on; thus transformed into an amphibian monster whose impressive profile stands out against the night sky, the diver descends into the water while the men at the pump supply him with

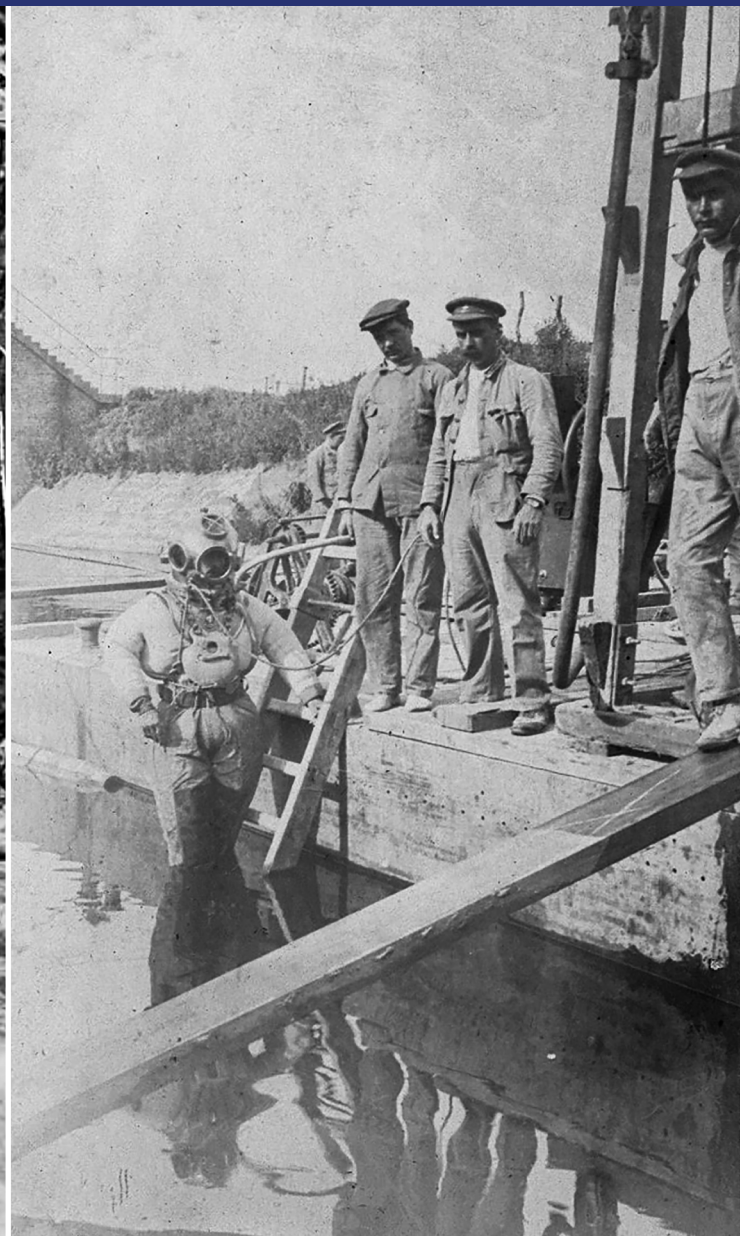
the necessities of life; a grenade explodes and hits his brothers-in-arms, a gas attack begins [note: the team members above water could protect themselves against gas, but the air pump was not equipped with a filter], and suddenly he finds himself lost underwater, to die in the most terrible torment!'

The company attached screens to locks and gates to block the view of the ongoing works. This did not stop general shelling but did ensure that the diving crew did not come under targeted fire during the operation. Planned bombings of the water infrastructure had been rather limited as it could cause unwanted flooding. Controlled floodings were not easily planned, unplanned ones were all the more dangerous, for friend and foe. Of course, if the other side saw activity on a lock, the crew would come under direct fire.

On March 26, 1915, the Yser lock was badly damaged from a bombing shell. It destroyed the track bridge over the lock. After repairs were carried out with shot beams, the Germans bombed the lock again, causing cracks in the floor. Helmet divers had to go into the water to fill the cracks with concrete.

THE DIVE ACCIDENT

Only one dive accident was reported. On November 5, 1915, diver and soldier, 2nd Class



ABOVE: Military Diver with communication device (April 1918) photo by De Patrouilleurs; WWI Military Helmet Diver. **OPPOSITE PAGE:** Automatic gates of the locks at the Noordvaart that were used for the second flooding, photo from the Deguent archives.

Van der Vrecken F. was killed while working on the lock on the Yser:

This tragedy was narrated by Commandant Thys:

"The lieutenant sends the Sergeant-Chief of the divers upstream of the lock to make sure there is no current. The water is completely still; the sergeant throws a stake in the canal just to be sure: the piece of wood does not indicate surface current. The betrayal is flawless. The greatest expert would be caught up in it.

Diver Van der Vrecken descends the ladder with slow movements. The silence is impressive; but the men, despite their tension, laugh at "friend Fritz" who regularly shoots at the bridges every five or six minutes. The diver is almost submerged up to the shoulders; the huge round bronze helmet glitters in the night and will soon disappear...

Suddenly, there is an unexpected tug on the

signal cord: the emergency cable slips through the hands of the terrified men; they are braced and resist with all their might the risk of being pulled into the lock. The diver has just been swept away by an undertow; a poorly closed valve sucked up the suit swollen with air; and the diver could not fight the stream. The drama is set in deep water...

However, the men do not want to admit that their comrade is lost. After a few moments of nervousness and surprise, realising the impossibility of retrieving the unfortunate soldier upstream, they let the rope slide in an attempt to pull him downstream onto dry land. Dangerous carelessness is committed, miracles are accomplished purely on strength.

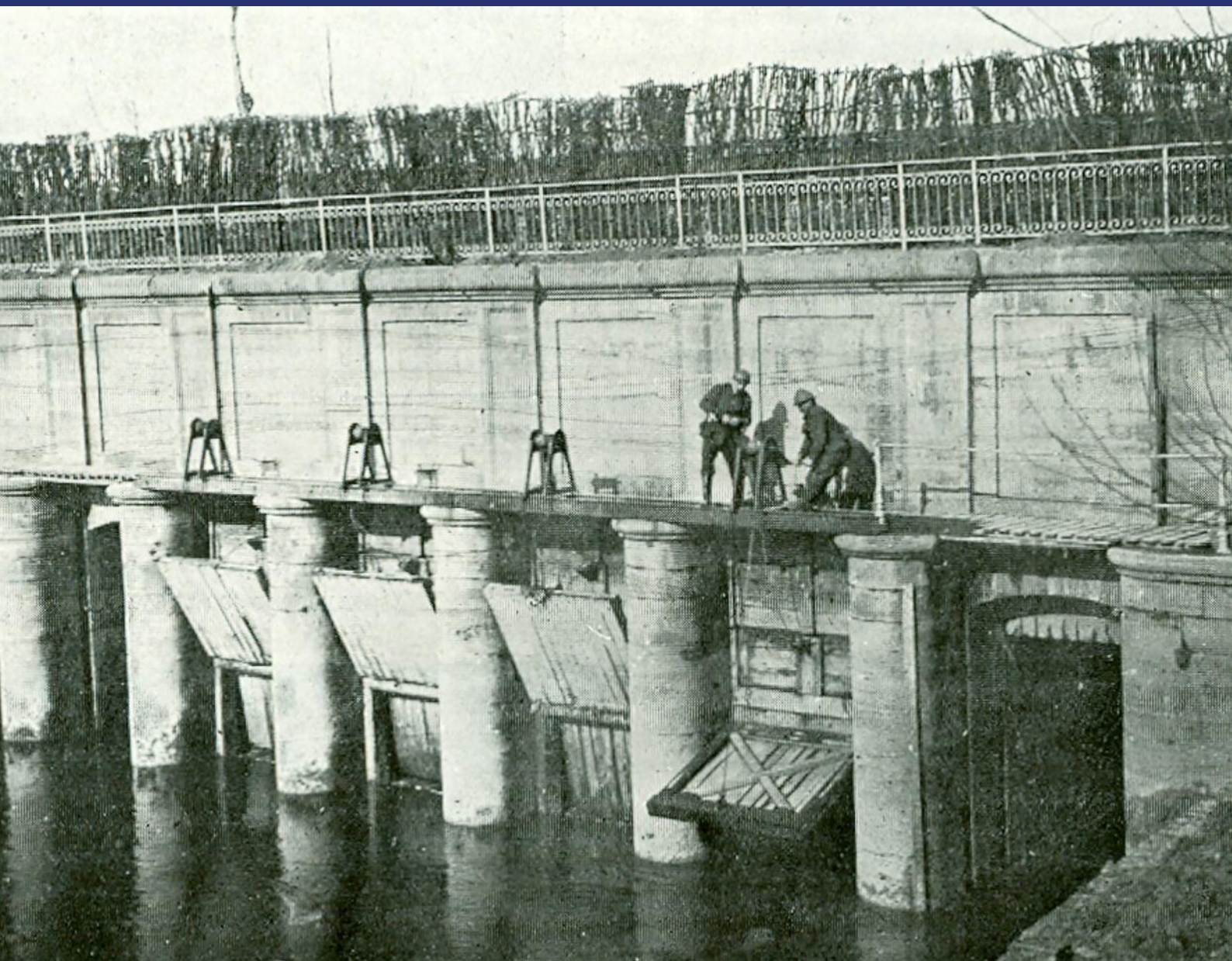
Finally the body has appeared, but sinister and pale: the diver's helmet was torn off as he passed under the valve, and his naked face is scarred by spasms of pain. The war has drained our energies and hardened our hearts; a

terrible emotion grips us in the face of this terrible death!

The lieutenant cuts or tears off the clothes and has the body transported to the hiding place of the lock in Veurne; we practice, in spite of everything, artificial respiration, friction, rhythmic pulling movements of the tongue. We are constantly taking turns in this desperate battle. Nevertheless, the body becomes stiffer and colder; the movements more difficult. For more than an hour, the efforts go on idly; the men are literally exhausted. Aware of the fixed fate, I give the order to stop.

The next day, work on the Yser resumes as usual, and another helmet diver descends into the lock. The war shows us such traits of heroism every day!"

The fatal accident led to a number of improvements to prevent similar events happening in the future. On November 10, 1916, Major Marchal asked to check all the



cords ordered by Commandant Thys before putting them into service. He also wanted to know when these cords were delivered, and why the cord broke on the second day after being put into service.

As a result from the investigation after the accident, only diving helmets that were attached to the suit by bolts could be used. Before starting, the Sergeant in charge had to ensure that there were no dangerous currents at the dive site. The lock keeper responsible for the lock where the work would be carried out, had to be present. The upper parts of the retrieval mechanism had to be painted white to increase its visibility for the diver. Finally, the equipment had to be thoroughly checked before any dive operation could take place.

To protect against wear and tear, divers had to wear a leather-lined linen suit over their diving suit. After a day's work, the dive suits had to be dried inside and out, away from the heat of the sun. The helmet had to be cleaned and lubricated weekly. Each section appointed had an equipment manager assigned to it.

The final fact that I could find in the limited sources at my disposal was that on May 21, 1916 the helmet divers transferred with their company to the Battalion Pontonniers located at Nieuwpoort. I was convinced that a detailed search in the field diaries of the various units with divers would yield more material.

In the archive 'Moskow' of the Belgian Royal Museum of the Army and Military History, they found Box 1178 (186-14-2842 Field Diaries of the 2nd Battalion Pontonniers (engineers, inundations), 1914-1919. In support of writing this article, they searched for information about divers in two of the files in that box. In the two files with nine field diaries of at least 80 pages each, they found no noteworthy facts. Browsing through all the field diaries in the box would mean painstaking work worthy of a historical investigation. This does not mean that diving activities ceased during the last years of the war, or that diving was safe. Diver and soldier, Isodore Tas was a victim of a gas attack on August 18, 1917. All considered, divers were soldiers too, and as such, exposed to the same daily horrors of war.

What very few people know is that in August and September of 1914, Belgian military engineers and their pontooniers carried out extensive and complex floodings around Antwerp. All in all, those floods took up more than double the area the engineers flooded on the Yser in four years.

This 'Antwerp' operation is virtually unknown to the outside world.

The Belgian Military Floodings Around the Fortified Site of Antwerp in August and September 1914 – A Historical-Geographical Reconstruction by Paul Van Pul.

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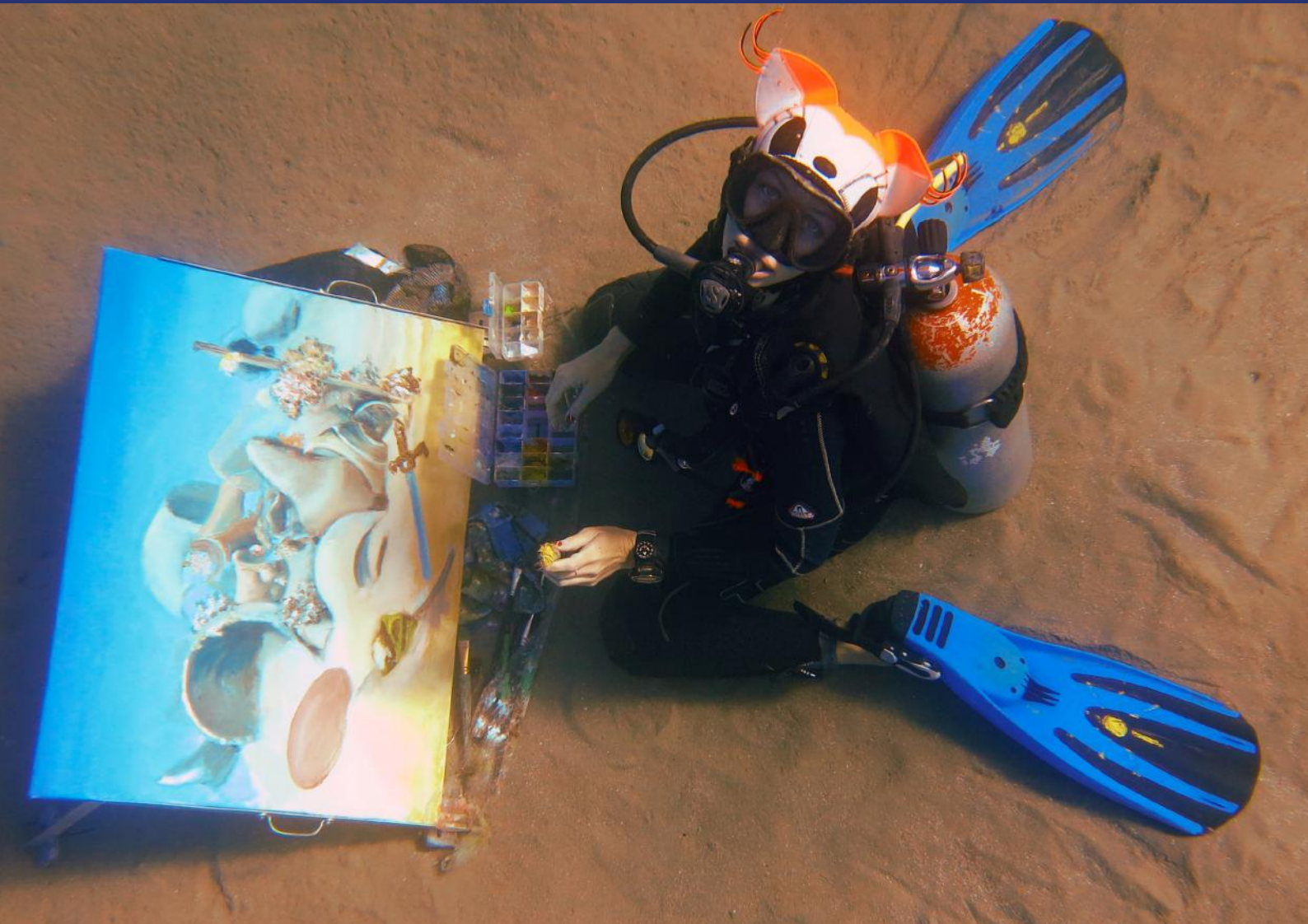
A UNIQUE ARTIST

WHO PAINTS WHILE SCUBA DIVING

FEATURE **OLGA BELKA & ALLY LANDES**

Olga Belka is a unique underwater artist with a very unique studio. She is the only underwater portraitist in the world who paints while scuba diving. She developed this special technique of painting in salt water to allow herself to paint directly from nature, detailing the smallest elements of the underwater world.





Olga Belka is a unique underwater artist with a very unusual studio. She is the only underwater portraitist in the world who paints while scuba diving. She developed this special technique of painting in salt water to allow herself to paint directly from nature, to detail the smallest elements of the underwater world.

Olga immediately fell in love with the underwater world when she experienced her first dive. So much so, she took it to the next level by becoming a professional diving instructor to pursue her painting career's new path by joining her two passions.

Olga's entire process is eco-friendly. The paint does not dissolve in the water, and she does not disturb any of the marine life while she

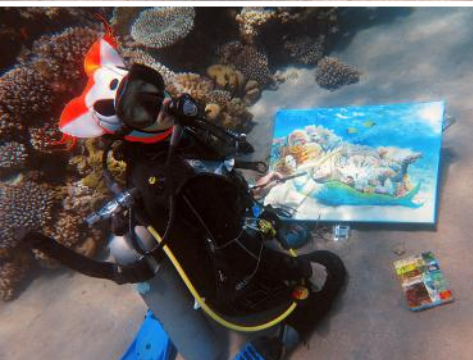
works. She creates her paintings from start to finish directly from the realms of nature, positioned on the seabed. Each painting requires between two to six dives, and each dive lasts up to three hours. Olga has not only managed to achieve the desired visual effect she has worked so hard to get, but she has also mastered the quality of her paintings for long life durability.

As well as painting sea creatures, Olga also stages scenes and creates compositions to produce stories of treasure, fantasy and fairy tales. To do this, she adds additional props underwater which she is sure to be safe towards the surrounding marine life.

With having gained experience in painting

underwater landscapes, Olga set about creating her art in a completely new direction, with underwater portraits. Humans obey the laws of physics completely differently underwater. They adapt to the water columns, surrounded by new unfamiliar energies and completely different harmonies to have their portraits painted. Being under the authority of the same energies, Olga captures them on canvas in an almost spiritual and very zen experience.

As a diving instructor, Olga is able to give modelling advice on how to pose underwater. Depending on the divers experience, they are put at ease to dive within their comfort zones, whether it be more comfortable for them in a swimming pool, or at shallow depths of open water, but Olga never paints from a



photograph. She uses real subjects at all times in order to get the feel, the emotions and the true colours for her work to come alive on her canvas.

The sea is a boundless resource of inspiration and energy for her and Olga wants to share her vision of the underwater kingdom with the world. In addition, she wants to draw the attention to the importance of protecting the environment which is why Olga creates her paintings underwater.

Olga visited the UAE for the first time this year to exhibit and sell her work during the World Art Dubai (WAD) expo from the 16-19 March 2022. Olga's larger paintings start from \$5,900 sized at 80x60 and \$1,200 for

her smaller pieces sized at 30x20. Prints are available for some of the originals priced at \$150 for small, \$250 for medium, and \$350 for large sizes. All her existing artwork is available for purchase on her website.

Olga had souvenirs available during the WAD expo, such as bags and keychains with copies of her paintings in which 100% of the proceeds went towards her coral reef clean-ups, an initiative very close to Olga's heart.

Besides being able to book a portrait painting session with Olga, she also offers underwater painting courses for those budding artists looking for new experiences. A painting course starts from \$3,000, or a trial course for the day starts at \$300.

Olga has been living in Southeast Asia for the past nine years, living between her two homes in Thailand and Singapore. She travels a lot and is open to offers from hotels or dive centres based anywhere in the world with a hot climate who can organise her painting sessions for her.

A painting takes up to a week to complete, so a project focused in one location can last up to a month with several paintings on the go. Olga dedicates all her time to her painting process.

CONTACT OLGA BELKA

Email: olgabelka.art@gmail.com
www.olgadiving.com





DOGS AND DIVERS

FEATURE **PATRICK VAN HOESERLANDE** PHOTOGRAPHY **SIGNI**

SIGNI's dogs are usually called in when a person has (possibly) drowned in an undefined area. The exact location of the remains or the place of drowning is also uncertain. Due to the accumulation of uncertainties, the water's surface to be explored is too large to be searched by divers. The dogs can quickly survey a large area by sniffing for human scents from a boat or from the water's edge.



A few months ago, I stumbled upon a photograph in a dive magazine showing two dogs in a Rigid Hull Inflatable Boat (RIB). The picture illustrated an article about divers and the Dutch labour code. When I looked at the photo, I wondered what the Dutch Underwater Association had to do with these dogs. Do they search for missing divers on or below the water's surface? Are they looking for dead divers resting on the bottom? Do the dogs dive for lost diving equipment (would be useful)? My curiosity was triggered and I wanted an answer.

Having read the article did not solve the mystery. Even the caption of the photo, 'SIGNI search dogs are regularly called in, both by private persons and agencies, and governments to search for missing persons' did not provide any additional hints except for the missing persons. I turned to the all-knowing Google to find out what it knew about SIGNI, and I came across the link, www.zoekhonden.com. From there I made contact with Esther van Neerbos, and the mystery started to unravel.

At the beginning of our conversation, I asked Esther what exactly her organisation did. In preparation for our virtual interview I unsuccessfully tried to figure out the meaning

of the acronym by combining all kinds of words for 'dog' and 'search'. Her answer however, was simple and surprising. SIGNI comes from 'Signalisation des Voies de Navigation Intérieure', French for the 'European Code for Signs and Signals of Inland Waterways'. In the case of the group's name, it refers to the dogs' role in directing people to remains under water.

We know that dogs have a superior sense of smell, and that with appropriate training, we can use them to search for things (such as truffles, drugs, food...) and people, alive and/or dead. There are various techniques for this, such as tracking and 'air scenting', each with its advantages and disadvantages. Air scent dogs use the presence of an undetermined human scent to locate its source.

NARROWING THE SEARCH AREA

SIGNI's dogs are usually called in when a person has (possibly) drowned in an undefined area. The exact location of the remains or the place of drowning is also uncertain. Due to the accumulation of uncertainties, the water's surface to be explored is too large to be searched by divers. The dogs can quickly survey a large area by sniffing for human scents from a boat or from the water's edge.

After all, the remains emit an odour (gas) for a very long time and that odour rises to the surface (no, not in the form of bubbles). The dogs are trained for that specific scent and indicate the place with the strongest presence. This indication first and foremost confirms the presence of a victim, and also severely restricts the area to be searched by other means. The dogs thus ensure that an extensive search area is quickly reduced to a smaller working area that is better suited to the use of precision equipment.

For the dogs, there are no restrictions regarding depth, temperature or type of water. There are also hardly any restrictions with regard to the time of drowning. Nevertheless, it is advised, unless in urgent cases, to plan the search at times with favourable circumstances in order to ensure that the search proceeds optimally. This may happen even after the official police investigation has turned nothing up.

The above read as if it were a simple procedure: dog smells gases, boat sails to the spot, and all is done. However, the scent trail is strongly influenced by wind and current. In addition, the dog cannot tell where the boat should go. The dog's behaviour must be read by the handler and passed on to the skipper.



Bringing the boat to just above the drowned person requires strong cooperation between dog, handler and skipper. Also, it is not at all certain that there is anything to be found. How long do you pilot around before you decide there's nothing in the water?

WATER SEARCH DOGS REPLACE DIVERS

During my stay in America, I had the opportunity to participate in some water training sessions for search dogs. There, divers fulfill an additional, important role in the training. The dogs are first trained to recognise the smell of human remains on land. This is done by rewarding them when they find jars of human remains during training. The difficulty of the exercise increases little by little until the handler has complete confidence in the dog's ability to find the source of the scent on a hard surface.

Then they switch to open water. With jars in hand, the divers attract the dog's attention and the skipper navigates in the direction indicated by the dog. After a few runs, the dog makes the connection between the smell, the direction he points to, and the direction of travel. A successful combination leads the boat to the diver and to the reward of the highest value for the dog. During the next steps, the diver attracts the dog's attention and dives a little when the

dog notices him. The dog then has to follow the scent to find the diver and get his reward. Gradually, the distance and depth increases until the diver can be replaced by an anchored, submerged scent jar. After the diver disappears from the scene, the training continues. We then end up in the world of the 'K9 SAR' (Search and Rescue Dog Training) techniques and that is beyond the scope of diving.

FIRST THE DOGS, THEN THE DIVERS

The training method used in America is not used by SIGNI. They train their dogs by placing scent sources in shallow water. This allows the dog to learn the transition from land to water in a simple, natural way. Then the team goes aboard. Sometimes, they use the 'learn by example' principle. Like humans, new dogs can learn by copying the behaviour of other, experienced dogs. Whatever the training method, the golden rules of dog training are repetition, planning for success, and progressing step by step.

The photo in the article referred to the collaboration between the K9 team and the divers. When a dog team in the boat confirms the presence of human remains and the work area has been determined, the dive team, which consists of volunteers, starts the search. The divers can then comb the smaller area in

search of the source of the scent. That source is not necessarily a full body. Through this cooperation, the chances of success are high. However, the Dutch Working Conditions Act makes it difficult to 'work' with diver-volunteers and that is why the picture with two dogs was an illustration for the article. Due to the efforts of the Dutch diving federation, among others, there is a favourable evolution in this dossier:

A picture still tells more than a thousand words. If you can spare some time, it's interesting to watch these working dogs and the team train, hoping you'll never need them.

VISUAL EXAMPLES (In Dutch)

1. SIGNI search dogs helped to locate a 59-year-old missing woman from Nijmegen (the Netherlands):
<https://bit.ly/vermistevrouw>

2. SIGNI search dogs locate a missing person in a car: <https://youtu.be/H-9p1IVGDQk>

3. Can SIGNI search dogs continue to search for missing persons?
<https://bit.ly/3PDAYF2>

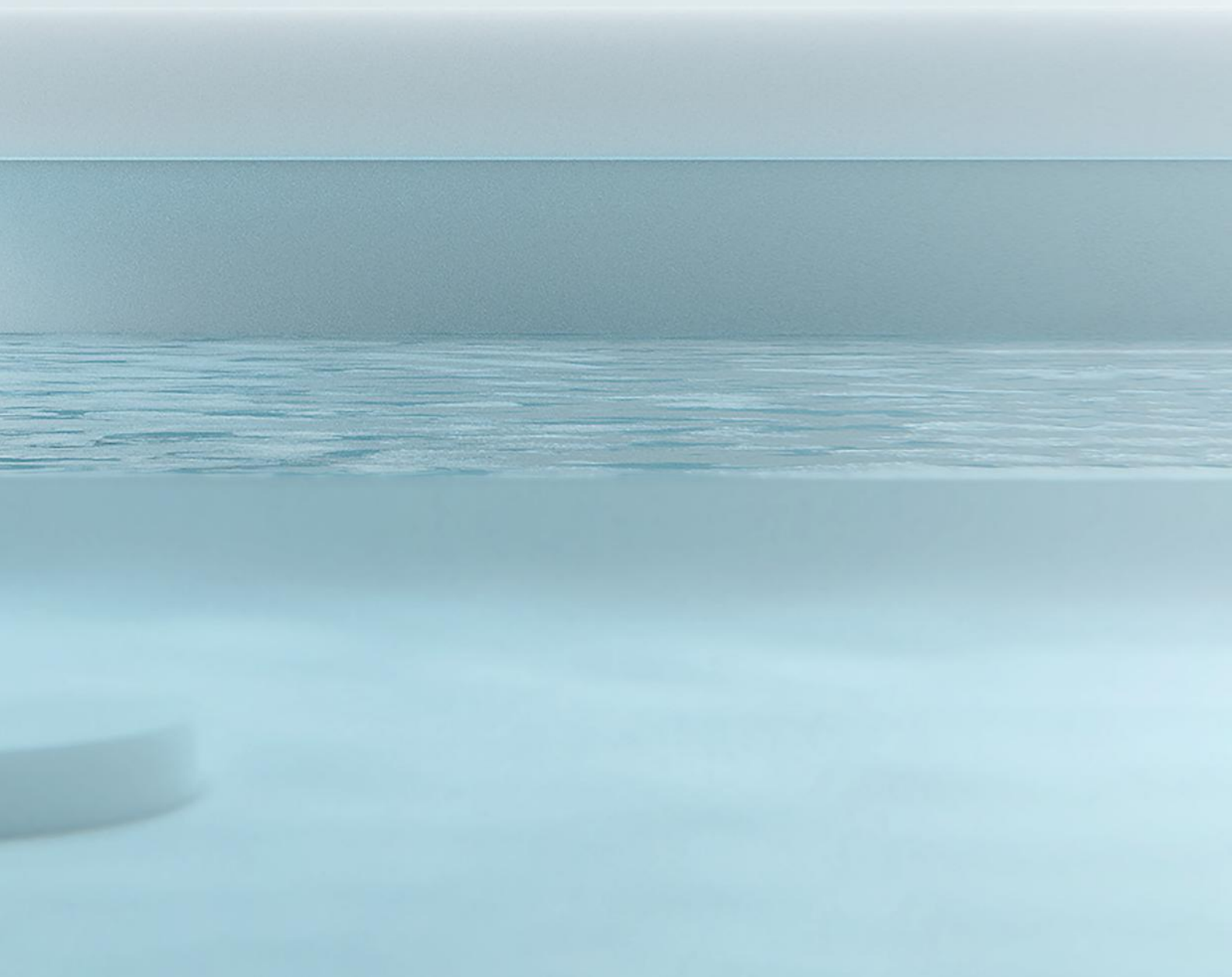


FOLDING FINS

THE WORLD'S FIRST BIOMIMETIC DESIGN

FEATURE **AHMED NABIL** PHOTOGRAPHY **MAX SZYMANSKI**

With a good extra 35 minute dive between swimming at the surface and underwater, the fins continued to give a satisfactorily good performance throughout. It was in general a good experience and test. I can proudly say, scuba divers have a new option available in the field!





As a professional diver and PADI Equipment Specialist Speciality Instructor, my passion has always been to pursue the latest releases in innovative scuba diving gear. New materials, new designs, and new suppliers are just some of the points I look for:

One of the benefits of attending this year's Dive MENA Expo co-located at the Dubai International Boat Show, was meeting one of the Co-founders of Exotech's new Folding Fins. The exhibition was a great opportunity for him to present and demonstrate his new product while it gave me the chance to have a close look and inquire about the design details. When I was invited to try these new folding fins, I couldn't decline his generous offer:

At first glance, the fins don't look traditional or conventional. As a scuba diver who has tried almost all scuba diving and free diving fins in the field, these new folding fins surprised me.

These fins were folded and stored in a very handy and light weight compact cylindrical container. Taking the fins out and unfolding them immediately put me in dive mode. The fins come in one size which is an exceptional feature for suppliers as divers will always have their correct size available.

The foot pocket is made from a robust synthetic material mesh. Using a key that is stored inside the fins, you can adjust the pocket to exactly match your foot size. It must be adjusted to a snug fit. The adjustment took me around 5 minutes to find the perfect fit to my foot. There is a bungee cord to keep the fins attached around the ankle. The blade consists of a PVC fabric material, similar to the one used in Zodiacs. The blade is softer than that of standard fins. I was not entirely confident these fins would perform well.

Mariusz Szymański and myself geared up,

jumped into the water, and I started the test. Swimming at the surface with full scuba dive gear has always been an exhausting exercise. Nevertheless a good pair of fins should make for an effective swim. Surprisingly, the fins had good thrust and kept pushing us forward in the water. There was a mild side current at the time, but regardless we were still moving forward. The fins are light and don't feel resistant as some other fins do. I believe many divers will appreciate these new fins with less effort and hardly any fatigue to the legs.

I had prepared a list of checks I wanted to do, starting with swimming underwater via flutter kicks, frog kicks and backwards finning. The fins were active and gave a satisfactory performance for flutter and backwards finning! Frog kicking was however, not effective. I stretched out my legs to practice cramp removal exercises and it turned out to be very simple!

TECHNICAL DETAILS



A PAIR OF FINS WEIGHS ONLY **1.7 KG / 3.7 LB.**



FOLDED DIMENSIONS:

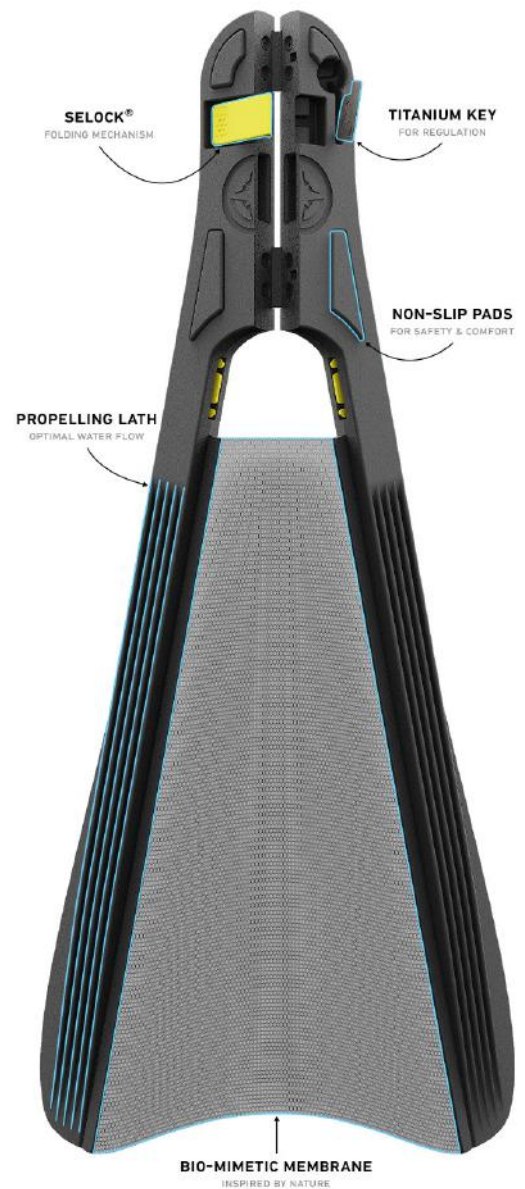
LENGTH - 60.2 CM OR 23.7 IN

WIDTH - 8.5 CM OR 3.3 IN

UNFOLDED DIMENSIONS:

LENGTH - 60.2 CM OR 23.7 IN

WIDTH - 29.4 CM OR 11.6 IN



I was encouraged to proceed with more rigorous tests. The most encountered "wrong move" made by new divers, is standing on the fins' blades. Fins are made for swimming and propelling water; not to withstand a diver's weight and this is one of the most common reasons for them breaking. These fins' blades with their synthetic support, held strong and were not damaged in the process.

With a good extra 35 minute dive between swimming at the surface and underwater, the fins continued to give a satisfactorily good performance throughout. It was in general a good experience and test. I can proudly say, scuba divers have a new option available in the field!

The fins are priced at \$199 excluding delivery. They can be purchased through Alpha Shop Commercial Mediation who is one of the UAE local suppliers. Email: alphadivinguae@gmail.com

www.foldingfins.com



FOLDING FINS

THE WORLD'S FIRST DESIGN



CREST CR-5

THE ALL-NEW DIVE & SPORTS WATCH

FEATURE AND PHOTOGRAPHY **ALLY LANDES**

This may not be one for the technical divers, but if you like your sports on top of your pleasure diving, such as running, biking, hiking, and swimming (there is more), the Crest CR-5 provides you with one dive computer/sports watch all-in-one option.





It has been a lot of fun reviewing the all-new Crest CR-5 Dive & Sports Watch. Choosing a dive computer is never an easy feat with all the choices out there, and between my old Mares Nemo and my current Suunto D4i, I can confirm, the Crest CR-5 has been the simplest dive computer I've used yet even with all the extra options available. It's also the most comfortable to wear long term with its more flexible and soft medical grade liquid silicone rubber wristband. It's more lightweight than my D4i – only by 5 grams – but it has a larger, more attractive colour screen, weighing in at only 80 grams. It is also programmable to be personalised to you and monitors your heart rate.

The multi-coloured monitor for one, is a game changer. It's definitely easier to visually keep track over your diver profile with some pop of colour. The temperature shows throughout the dive, which neither of my previous computers did, until after the dive had ended. I especially like it when passing through thermoclines and can see how much the temperature drops in real time. I can also now see the time of day displayed on the screen, right next to my dive time, NDL, my depth, and my ascent or descent speed. And it has a compass built into it which is easily calibrated under the instructions provided. I was sold on the first dive.

I especially love I am now in complete control of my computer's battery life with the handy USB charger. There will no longer be any emergencies to get a battery changed at a last minute's notice before a big trip away. This has happened to me a couple of times, with one

service centre's pressure test failure flooding my dive computer within the first few metres of descent while away on a livaboard. Now, there are no pressure tests needed, and I can charge it myself. It takes just over an hour to fully charge and the battery lasts an age. I've not yet had to recharge it and I've been playing around with it for a week between dives and checking the sports mode with my bike – it has worked a treat.

The CR-5 uses the Global Navigation Satellite System (GNSS) which uses the US positioning system of GPS as the default. It can easily be turned on or off when needed.

This may not be one for the technical divers, but if you like your sports on top of your pleasure diving, such as running, biking, hiking, and swimming (there is more), the Crest CR-5 provides you with one dive computer/sports watch all-in-one option. Priced at \$676, it may be a bit steeper in price than some of the other new dive computers on the market, but this one does so much more with the added bonus of also being a sports watch. You no longer need two different devices, which saves you a lot in the long run.

The dive mode supports the usual Air, Nitrox, and freediving, and there are also gauge, and plan which are new to me. The Crest CR-5 can be set to Conservative, Normal or Aggressive safety modes which I have not been able to choose on my previous computers. The Suunto D4i is known to be conservative, and I set my CR-5 to Normal and was on par with my D4i on all four dives. I have yet to

check the other safety modes and do a deep dive – these were all shallow dives done at a maximum depth of 15 metres with one dive done on Nitrox to test it out. It's incredibly simple to set to Nitrox and set back to Air which is not at all the case with the D4i. I even had my buddy test it (my model for the shots), and he loved it.

The only qualms I've had with the watch, is the Altitude has a mind of its own and while being sat at ground zero, I've been up in the clouds. Thus it's not reliable when moving from sea level to high mountain areas after a dive. We all know step counts are inaccurate, but in this case, they were sometimes not counted at all, or I was clocking steps while sat at my desk, but despite that, no other complaints.

You need to download the Divestory+ app to your phone to upload your dive logs, and you need to manually insert the dive sites once they are on your phone. The app also takes care of your firmware upgrades which is recommended to be done once a week to keep your CR-5 up to speed. I'd like to point out, I have never been able to upload my dives to my laptop from my D4i with the cable provided, and Suunto never solved my issue when I got in touch with them. With my CR-5, it's wirelessly simple. To download your sports logs, there is a separate app called Marathon's World to download which shows your average heart rate, some crazy altitudes, and a map with your route outlined. These have both been great.

Do I recommend it? Why yes, yes I do!

CREST CR-5 SYSTEM SPECS

Dive Mode:	Scuba, Freedive, Gauge, Plan, Dive Spot
Sports Mode:	Run, Hike, Bike, Swim, Work Out, Triathlon or Multisport
Dive Rate:	10 atm
Gas Support:	Air and Nitrox (EAN 21-99%)
Decompression Algorithm:	Based on Buehlmann ZH-L16C
Battery Type:	Rechargeable battery (300+ charge cycle)
Battery Life:	Dive Mode up to 25 dives Sports Mode up to 40 hours Standby Mode up to 14 days
Depth Limit:	100m / 330 feet
Log Storage:	1000+
Scuba Safety Factor:	Conservative, Normal, Aggressive
Dive Alarms:	Audible and vibrating alarms
GNSS:	GPS, GLONASS, GALILEO
Display Size:	3.1 cm / 1.22 inches
Display Type:	Colour MIP LCD
Screen Resolution:	240 x 240 pixels
Weight:	80g
Bezel and Button:	316 Stainless Steel
Lens:	Corning Gorilla Glass (38mm / 1.45")
Straps:	18mm Liquid Silicone Rubber
Display Temperature:	0°C - 40°C (32°F - 104°F)
Operating Temperature:	-5°C - 40°C (23°F - 104°F)

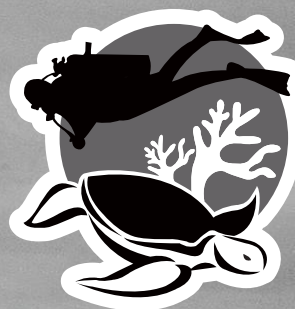
**GET ALL THE INFO HERE:**WEBSITE: www.crestdiving.comSHOP: www.shop.crestdiving.com
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[i](https://www.instagram.com/crestdiving/) www.instagram.com/crestdiving/
[y](https://bit.ly/3sYjOlq) <https://bit.ly/3sYjOlq>
**CREST**



WWW.EMIRATESDIVING.COM

DIGITAL ONLINE RESULTS

EDA'S UNDERWATER PHOTOGRAPHY
AND FILM COMPETITION 2022



DIGITAL ONLINE

جمعية الإمارات للغوص
EMIRATES DIVING ASSOCIATION
PHOTOGRAPHY AND FILM COMPETITION

THE EVENT



AN EVENT BY



EVENT PARTNER



PRINTING PARTNER



DIGITAL ONLINE 2009-2022

Digital Online celebrates its 13th Anniversary! The competition was introduced by EDA in 2009 to resident photographers to develop a relationship and human interaction amongst those unfamiliar with the underwater world environment. The competition holds both local and international marine life categories to offer variety between our local and international diving enthusiasts. The film category was introduced as an extension to the competition in 2012 to share our underwater world through motion pictures and deliver a better understanding of the habitats and surroundings.

The event sees continuous and steady growth with new underwater photographers taking part and joining our regular yearly participants. The enthusiasm and passion strives on, and the drive to bring our underwater world's conservation to the forefront increases over time.

The purpose of Digital Online is to keep our underwater world visible by displaying its hidden beauties and to exemplify its importance to all life on Earth through the powers of its ecosystems.

The event has attained equal success with

the non-divers who come to support the participating photographers and videographers at the Awards and Exhibition Night. Whether it's through discussion or articles brought to our readers through our free quarterly magazine – Divers for the Environment – the inspiration the event brings, is a success in its own right.

COMPETITION CLAUSE

EDA does not disclose photographers' names during the judging process. The competition is run fairly and without prejudice, professionally adhering to all of Digital Online's rules and guidelines throughout.

	PHOTOGRAPHY	UAE	BW	CREATIVE	MACRO	WA	TOTAL
1	Michael Rall	417	413	438	448	401	2117
2	Ola Khalaf	394	423	430	460	380	2087
3	Khalid Alrazooqi	310	405	474	423	350	1962
4	Sultan Althahab	364	329	344	403	388	1828
5	Philippe Lecomte	421	478		470	419	1788
6	Shijo Jose	294	355	392	368	328	1737
7	Ahmed Al Ali	452	384	430	411		1677
8	Levente Rozsahegyi		465	432	355	422	1674
9	Ahmed Ramadan	390	301	307	323	294	1615
10	Oliver Farrell	383	427		421	376	1607
11	Nassim Miri	362	310	270	318	285	1545
12	Marwa El-Agroudy	393	402	339	357		1491
13	Gordon Smith	277	295	355	298	261	1486
14	Fakhruddin Dabhoiwala	275	367	319	297	199	1457
15	Angela Manthorpe	250	235	223	351	266	1325
16	Sarah Kelly	257	267	180	186	292	1182
17	Lara El Lakkis	366			425	339	1130
18	Yevheniia Rehush	320	286	337		183	1126
19	Ahmed Alkaabi	428			421		849
20	Suretta Venter	357	286				643
21	Henrik Stahl	344			279		623
22	Emil Duffey			257		229	486
23	Mishaal Ashok					266	266

	VIDEO	RISING TO THE OCEANS TOTAL
1	Oliver Farrell	477
2	Ahmed Al Ali	412
3	Ahmed Alkaabi	376
4	Yuriy Rakhmatullin	345
5	Suretta Venter	308
6	Khalid Alrazooqi	235

THE SPONSORS AND PRIZES

Digital Online's 2022 Prize Sponsors have offered this year's 18 winners their following chosen prizes:

NOTE: Participants are only able to win one prize for photos. Entrants with multiple winning entries are given priority in the points awarded.



1. **WINNER: Oliver Farrell** | 1st Place Video (477)
SPONSOR: DIVERS DOWN | www.diversdownuae.com
6 Dives Package to dive the East Coast's dive sites. Includes tank and weights.
2. **WINNER: Philippe Lecomte** | 1st Place Black & White (478)
SPONSOR: XTAR | www.xtar.cc
D30 1600 Diving Flashlight
3. **WINNER: Khalid Alrazooqi** | 1st Place Creative UW Photo (474)
SPONSOR: EDA | www.emiratesdiving.com
Reef Check EcoDiver Training
4. **WINNER: Ola Khalaf** | 1st Place Macro (460)
SPONSOR: EDA | www.emiratesdiving.com
Scuba up to 30m for Certified Divers in Deep Dive Dubai
5. **WINNER: Ahmed Al Ali** | 1st Place Best of the UAE (452)
SPONSOR: EDA | www.emiratesdiving.com
Reef Check EcoDiver Training
6. **WINNER: Levente Rozsahegyi** | 1st Place Wide Angle (422)
SPONSOR: EDA | www.emiratesdiving.com
Scuba up to 30m for Certified Divers in Deep Dive Dubai
7. **WINNER: Ahmed Al Ali** | 2nd Place Video (412)
SPONSOR: FREESTYLE DIVERS | www.freestyledivers.me
The Local Hero Conservation Course
8. **WINNER: Michael Rall** | 2nd Place Creative UW Photo (438)
SPONSOR: SUPPERCLUB | www.supperclubme.com
A dining voucher worth up to AED250 at one of Supperclub's 5-star hotel restaurants along with a 12-month Supperclub Diamond Membership.
9. **WINNER: Ahmed Alkaabi** | 2nd Place The Best of the UAE (428)
SPONSOR: SUPPERCLUB | www.supperclubme.com
A 12-month Supperclub Diamond Membership
10. **WINNER: Oliver Farrell** | 2nd Place Black & White (427)
SPONSOR: SANDY BEACH DIVE CENTRE | www.divesandybeach.com
Double tank boat dive trip with or without equipment, including tanks and weights.

11. **WINNER: Lara El Lakkis** | 2nd Place Macro (425)
SPONSOR: GRAND STORES | www.grandstores.com
Rollei Actioncam 425
12. **WINNER: Sultan Athahab** | 2nd Place Wide Angle (388)
SPONSOR: GRAND STORES | www.grandstores.com
Rollei Actioncam 415
13. **WINNER: Ahmed Alkaabi** | 3rd Place Video (376)
SPONSOR: EDA | www.emiratesdiving.com
Reef Check EcoDiver Training
14. **WINNER: Marwa El-Agroudy** | 3rd Place Black & White (402)
SPONSOR: AL BOOM DIVING | www.alboomdiving.com
2 dives on East Coast (Fujairah) with full equipment for 1 person.
15. **WINNER: Shijo Jose** | 3rd Place Creative UW Photo (392)
SPONSOR: EDA | www.emiratesdiving.com
Reef Check EcoDiver Training
16. **WINNER: Ahmed Ramadan** | 3rd Place Best of the UAE (390)
SPONSOR: XTAR | www.xtar.cc
SN4 Camera Battery Charger
17. **WINNER: Angela Manthorpe** | 3rd Place Macro (351)
SPONSOR: AL MAHARA DIVING CENTER | www.divemahara.com
2 tank dive trip to Zone 2's shipwreck in Abu Dhabi. Includes equipment, tank and weights.
18. **WINNER: Sarah Kelly** | 3rd Place Wide Angle (292)
SPONSOR: SUPPERCLUB | www.supperclubme.com
A 12-month Supperclub Diamond Membership

HONOURABLE MENTIONS:

Photographers who have won multiple photo entries, win a prize for their highest score and receive honourable mentions for the others.

1. **Philippe Lecomte** | 1st Place Macro (470)
2. **Levente Rozsahegyi** | 2nd Place Black & White (465)
3. **Philippe Lecomte** | 2nd Place Wide Angle (419)
4. **Michael Rall** | 3rd Place MACRO (448)
5. **Levente Rozsahegyi** | 3rd Place Creative UW Photo (432)
6. **Philippe Lecomte** | 3rd Place Best of the UAE (421)
7. **Michael Rall** | 3rd Place Wide Angle (401)

DIGITAL ONLINE OVERALL PHOTOGRAPHER AND VIDEOGRAPHER WINNERS 2022

This year's overall winners for Digital Online's Photographer 2022 is Michael Rall, and Digital Online's Videographer 2022 is Oliver Farrell who both received this year's trophies. Congratulations to all our participants for taking part and sharing their work with us, and thank you to all our guests who came to support the event. It was a great evening at the Awards Night at Deep Dive Dubai.

THE DIGITAL ONLINE JUDGES

STEVE WOODS

Adventure and Wildlife Photographer



Steve is a British adventure and wildlife photographer, based in Vancouver, Canada. His aim is to photograph the natural world to show people how beautiful and awe-inspiring it is as well as trying to highlight the danger we are inflicting on the very ecosystems we revere so much, by photographing and documenting the issues at hand. Steve has worked for many years as a photographer in the

UK and abroad, firstly as a newspaper and sport photographer, then moving into commercial, advertising and wildlife/adventure photography. With his passion for the natural world, he uses his skills as a photographer to work in marine conservation.

WEBSITE: www.stevewoodsunderwater.com

FACEBOOK: @SteveWoodsPhotography

INSTAGRAM: @steve_woods_photography

DAVID DILEY | SCARLET VIEW MEDIA

Filmmaker, Underwater Cinematographer and Digital Colourist



David is a multi-award winning Filmmaker, Underwater Cinematographer and Digital Colourist from the UK best known for his work with sharks and large marine megafauna as well as his multi-award winning feature documentary, 'Of Shark and Man'.

His profile has increased rapidly thanks to his work on a wide variety of projects for film and television, alongside his commercial work for a number of household brands.

David is the owner of Scarlet View Media, a high end boutique Production House in the north of England, and is a Panasonic Professional Ambassador and Angelbird Media Creative.

WEBSITE: www.scarletviewmedia.com

FACEBOOK: @daviddileymaker

IMRAN AHMAD BIN RAYAT AHMAD | ESCAPEINC

Internationally Published Underwater Photographer



Imran is a photographer and media lecturer based in Singapore with an extensive portfolio. He is highly committed to the education of future generations and in so doing gives presentations and runs workshops on conservation, underwater, travel, sportsphotography&cinematography. Imran is internationally recognised as a Professional Nikon Photographer, a SEACAM Pro Photographer and

Ambassador, a Blancpain Ocean Ambassador, Mares, DAN, and DEEPBLU Ambassador, and an Ocean Artist Society Member.

He has been published in countless leading media publications around the world including Nikon Focus, Sport Diver (USA), Tauchen (Germany), Unterwasser (Germany), DAN (Asia Pacific) Scuba Diver Australasia, Scuba Diver, Hello Bali (Indonesia), Asian Diver, EZDive (Hong Kong), Scuba Diving (USA), CEO Magazine (Malaysia), MediCorp's Slice of Life (Singapore), Straits Times, and Berita Harian, just to name a few. In addition, Imran has 5 of his own published underwater photography books.

WEBSITE: www.escapeinc.com.sg

FACEBOOK: @IMPESCAPEINC

MOHAMED ALMUSALLAMI

Underwater Photographer and Marine Biologist



Mohamed is a son of the Arabian Gulf. Coming from a long line of legendary pearl divers and fishermen, a strong bond ties him to the deep blue. Born in Dubai on a stormy night in November of 1989, he started his passion as a freediver and a spear-fisherman at an early age and naturally fell in love with the beauty of the underwater world. Mohamed started his underwater photography

in 2008 which won him several awards and to which he has been published internationally since. His eye-catching and distinctive style is aimed at pushing the limits of how photographers represent life below the waves. Mohamed has dedicated himself to conservation and to the Art of Underwater Photography, putting forth the message, "The Ocean has given our ancestors everything, now it is our turn to give back". As a marine scientist with a masters degree in Environmental Science, he works closely with sea turtles, dugongs, dolphins, sharks and all other exotic species, as well as being responsible for many rare scientific discoveries in the Arabian Gulf region. Mohamed is also a PADI Instructor, a PhD candidate at UAE University, and an affiliate at Mohammed bin Rashid Academy of Scientists (MBRAS).

INSTAGRAM: @b47r

SIMONE CAPRODOSSI | SUNDIVE BYRON BAY

Underwater Photographer



Simone is an Italian underwater photographer, who has been awarded in several prestigious competitions and published internationally. After over 10 years of corporate life in Dubai, he recently moved to Australia where he now co-owns and manages Sundive Byron Bay, a PADI 5 Star Dive Centre offering dives at the amazing Julian Rocks in Byron Bay. After travelling to and photographing many

unique diving destinations worldwide, he also runs expeditions with Sundive to help others experience and photograph his favourite ones such as the Sardine Run and Djibouti. Simone was the Overall Winner of Digital Online for two consecutive years until he became a judge for the competition and has been a main feature contributor to the EDA magazine, 'Divers for the Environment'.

FACEBOOK: @SimoneCaprodossiPhotography

INSTAGRAM: @scaprodossi

ALLY LANDES | EMIRATES DIVING ASSOCIATION

Project Manager, Editor, Graphic Designer, Photographer & Videographer



Ally has worked with EDA since December 2004 when she created and introduced the quarterly magazine, 'Divers for the Environment'. She branded and helped foresee the development of Digital Online – EDA's Underwater Photography and Film Competition from its launch in 2009 and has since managed the event. Ally also coordinates the Dive MENA Expo with the Dubai

World Trade Centre Exhibitions and Events Management team for the Dubai International Boat Show.

She keeps busy within her fields of passion, managing the EDA team, developing EDA's brand, running all the events and social media.

WEBSITE: www.emiratesdiving.com

FACEBOOK: @emiratesdivingassociation

1st PLACE: Philippe Lecomte | Black & White – 478
The Bahamas



1st PLACE: Ola Khalaf | Macro – 460
Tumlamben, Indonesia



1st PLACE: Khalid Alrazooqi | Creative Underwater Photography – 474
Fujairah, UAE









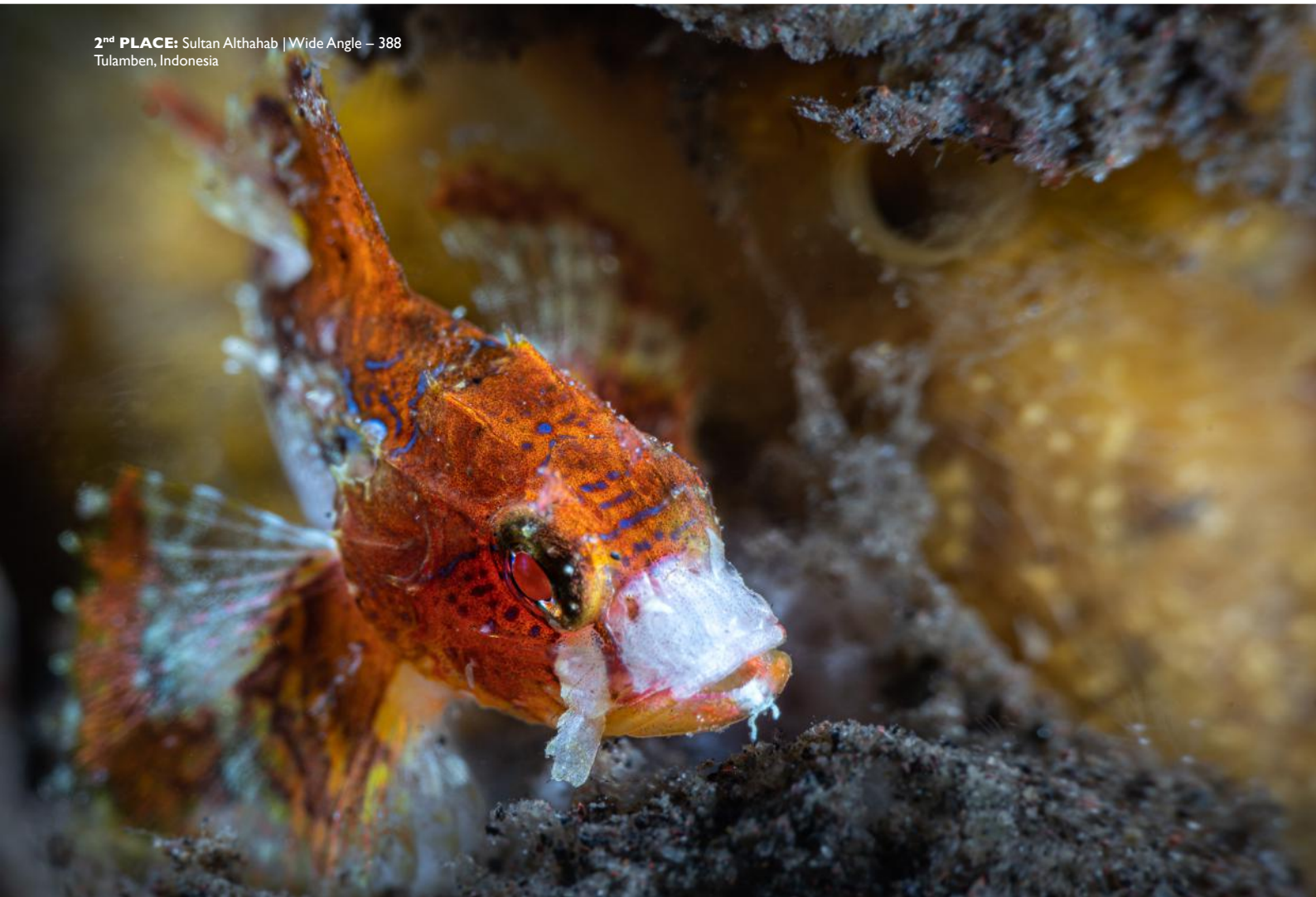
2nd PLACE: Ahmed Alkaabi | Best of the UAE – 428
Inchcape 2, Khorfakkan, UAE



2nd PLACE: Oliver Farrell | Black & White – 427
Saudi Arabia



2nd PLACE: Lara El Lakkis | Macro – 425
United Arab Emirates



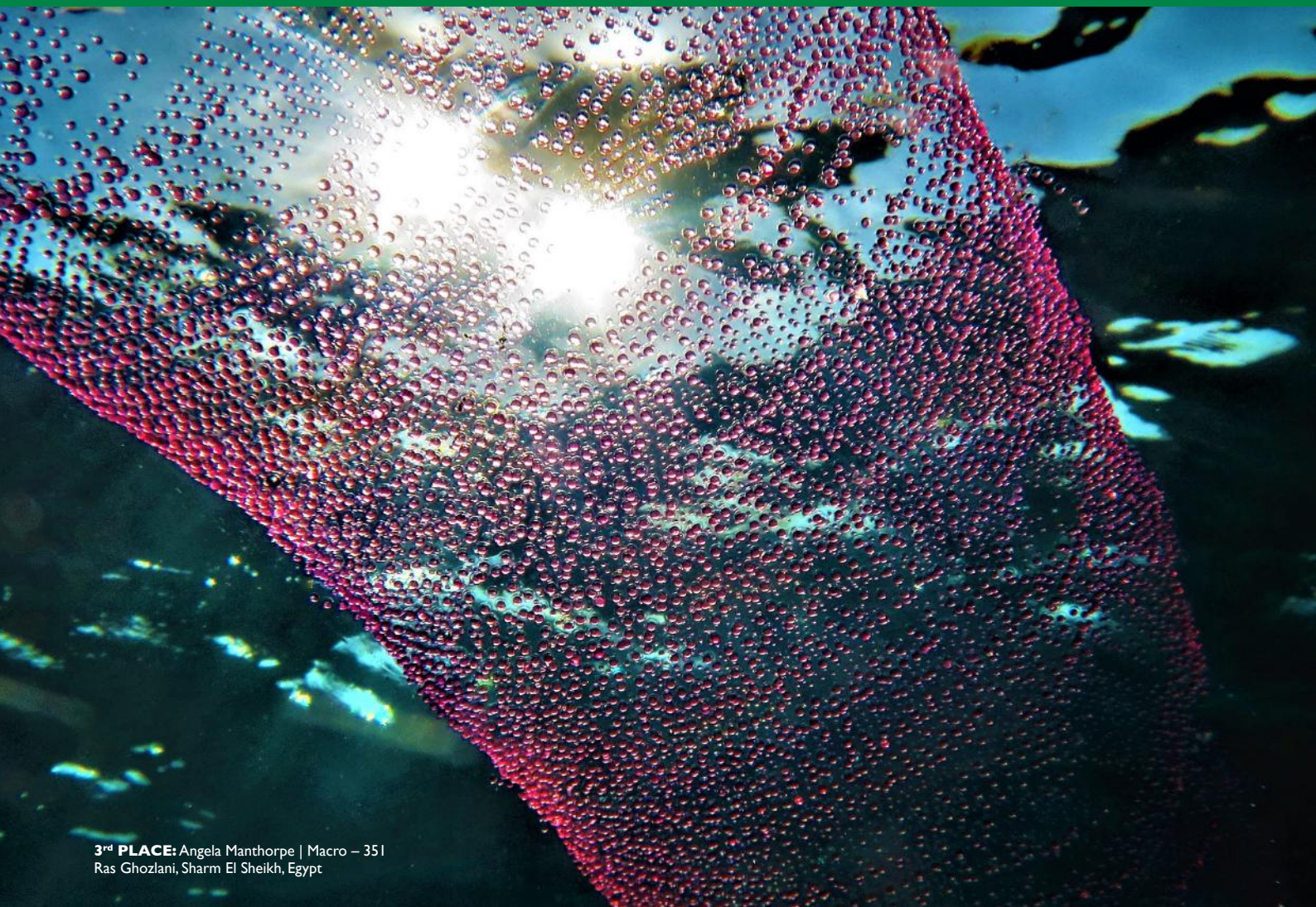
2nd PLACE: Sultan Althahab | Wide Angle – 388
Tulamben, Indonesia

3rd PLACE: Marwa El-Agroudy | Black & White – 402
Maldives



3rd PLACE: Ahmed Ramadan | Best of the UAE – 390
Dibba, Fujairah, UAE





3rd PLACE: Angela Manthorpe | Macro – 351
Ras Ghozlani, Sharm El Sheikh, Egypt



3rd PLACE: Sarah Kelly | Wide Angle – 292
Yasawa Islands, Fiji

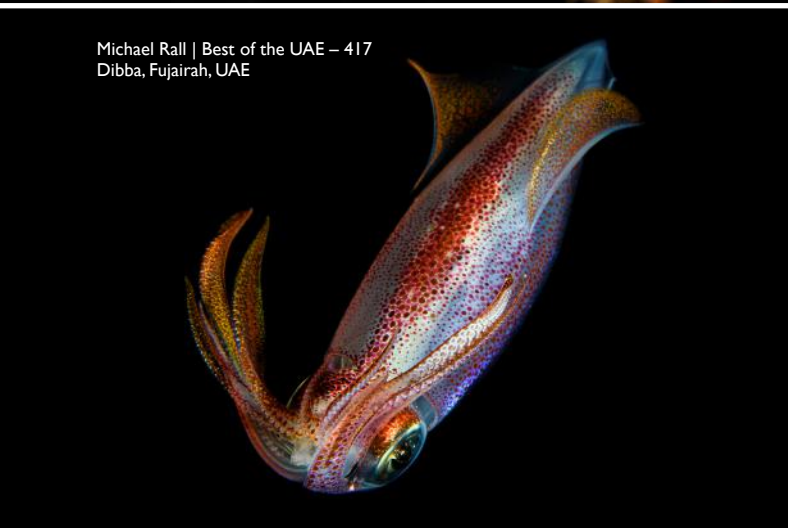


HONOURABLE MENTION

Philippe Lecomte | Best of the UAE – 421
Khorfakkan, UAE



Ola Khalaf | Best of the UAE – 394
Khorfakkan, UAE



Michael Rall | Best of the UAE – 417
Dibba, Fujairah, UAE



Marwa El-Agroudy | Best of the UAE – 393
Fujairah, UAE



Oliver Farrell | Best of the UAE – 383
Dibba, UAE

UW PHOTOGRAPHY

Lara El Lakkis | Best of the UAE – 366
United Arab Emirates



Sultan Althahab | Best of the UAE – 364
Fujairah, UAE



Suretta Venter | Best of the UAE – 357
Al Aqah, UAE



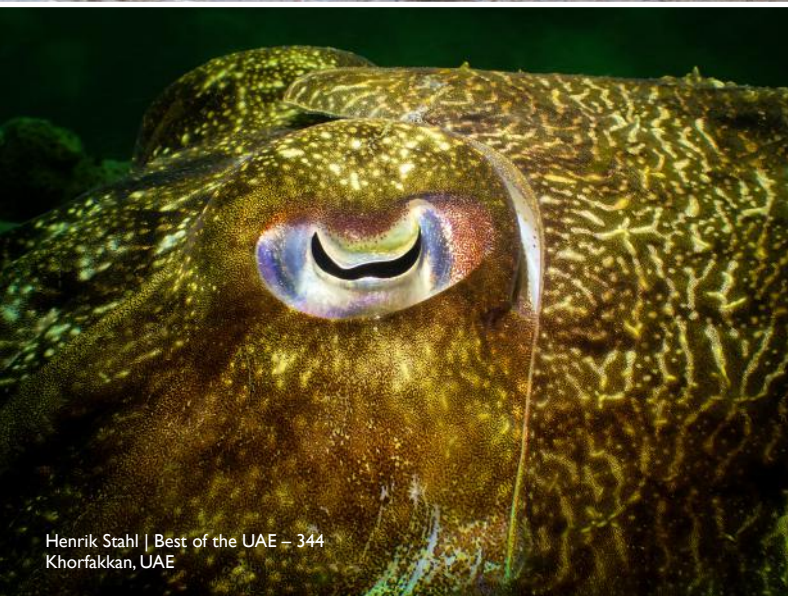
Nassim Miri | Best of the UAE – 362
Fujairah, UAE



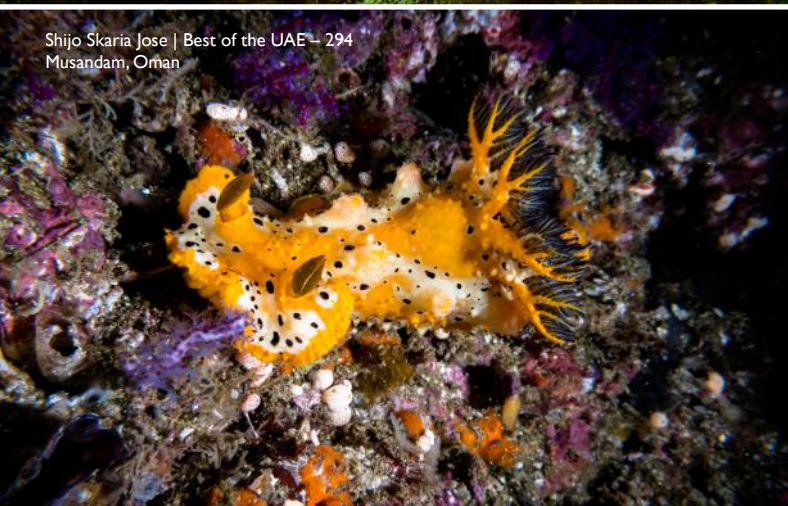
Yevheniia Rehush | Best of the UAE – 320
Dubai, UAE



Henrik Stahl | Best of the UAE – 344
Khorfakkan, UAE



Shijo Skaria Jose | Best of the UAE – 294
Musandam, Oman



Gordon T Smith | Best of the UAE – 277
South of La Mer, Dubai, UAE



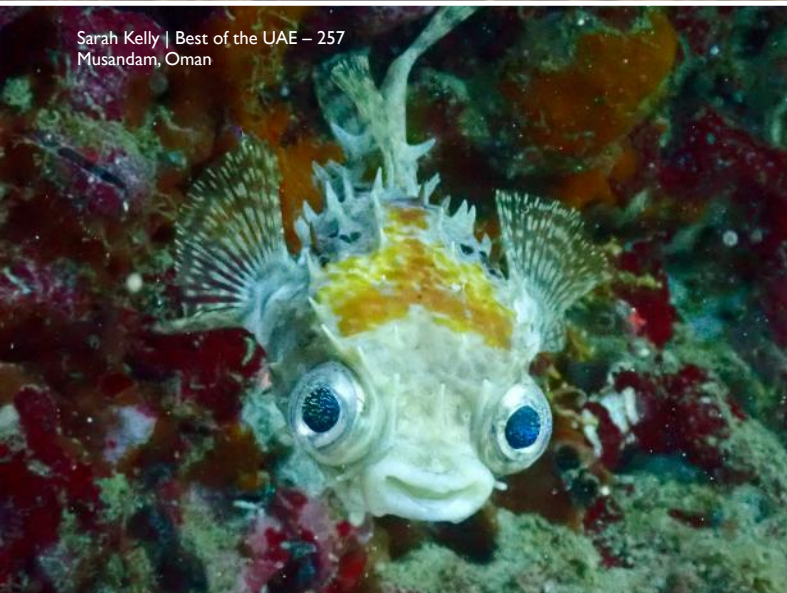
Khalid Alrazooqi | Best of the UAE – 310
Fujairah, UAE



Fakhruddin Dabhoiwala | Best of the UAE – 275
Fujairah, UAE



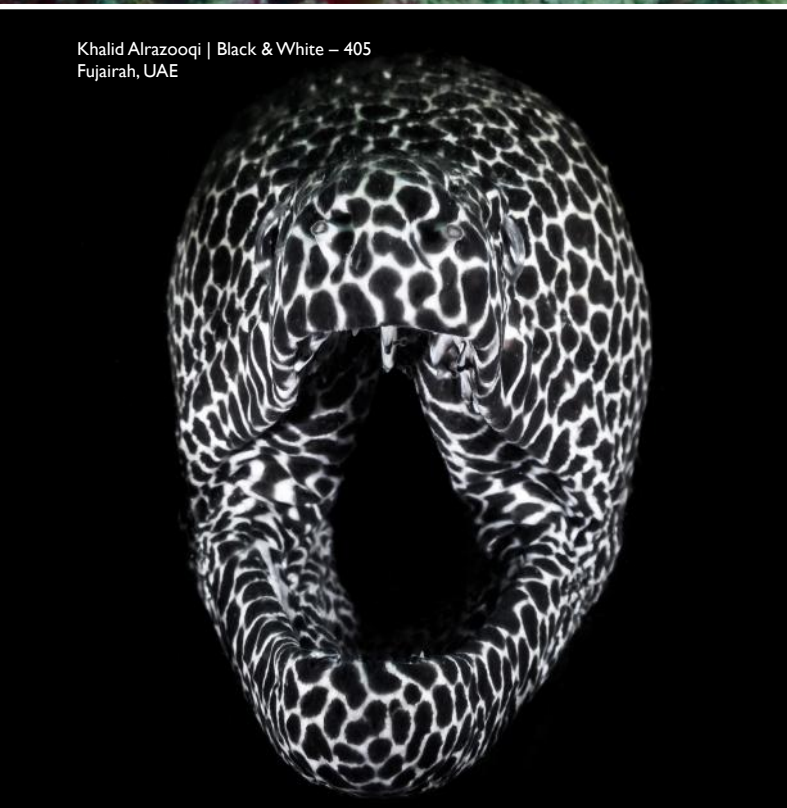
Sarah Kelly | Best of the UAE – 257
Musandam, Oman



Angela Manthorpe | Best of the UAE – 250
Musandam, Oman



Khalid Alrazooqi | Black & White – 405
Fujairah, UAE

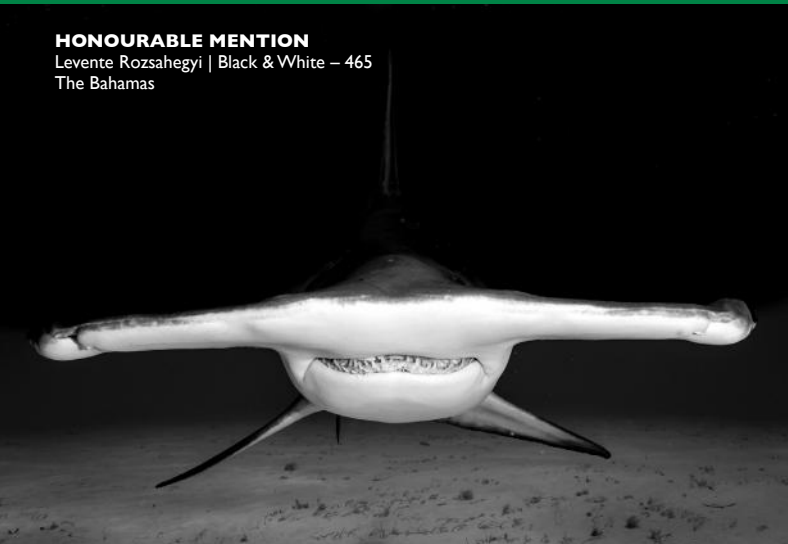


Ahmed Al Ali | Black & White – 384
Fujairah, UAE

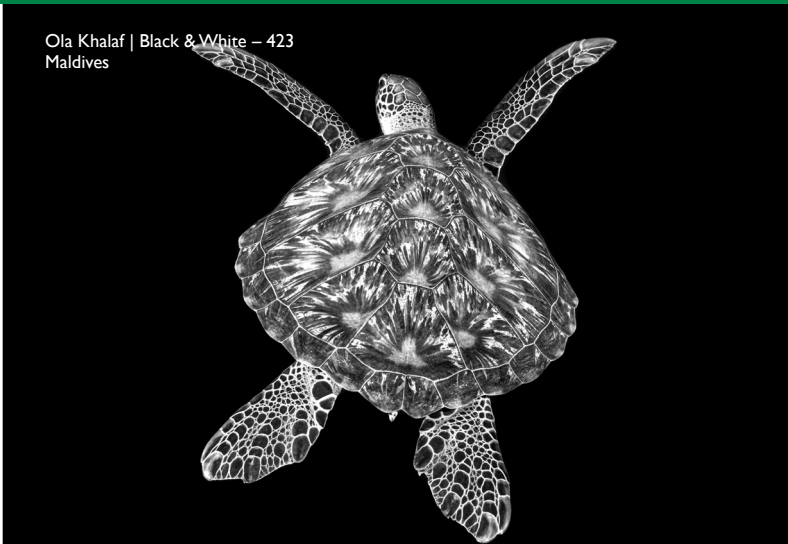


HONOURABLE MENTION

Levente Rozsahegyi | Black & White – 465
The Bahamas



Ola Khalaf | Black & White – 423
Maldives



Michael Rall | Black & White – 413
Los Angeles, USA



Shijo Skaria Jose | Black & White – 355
Rangali, Madivaru, Maldives



Fakhruddin Dabhoiwala | Black & White – 367
Sharm Rock, Fujairah, UAE



Sultan Althahab | Black & White – 329
Tulamben, Indonesia



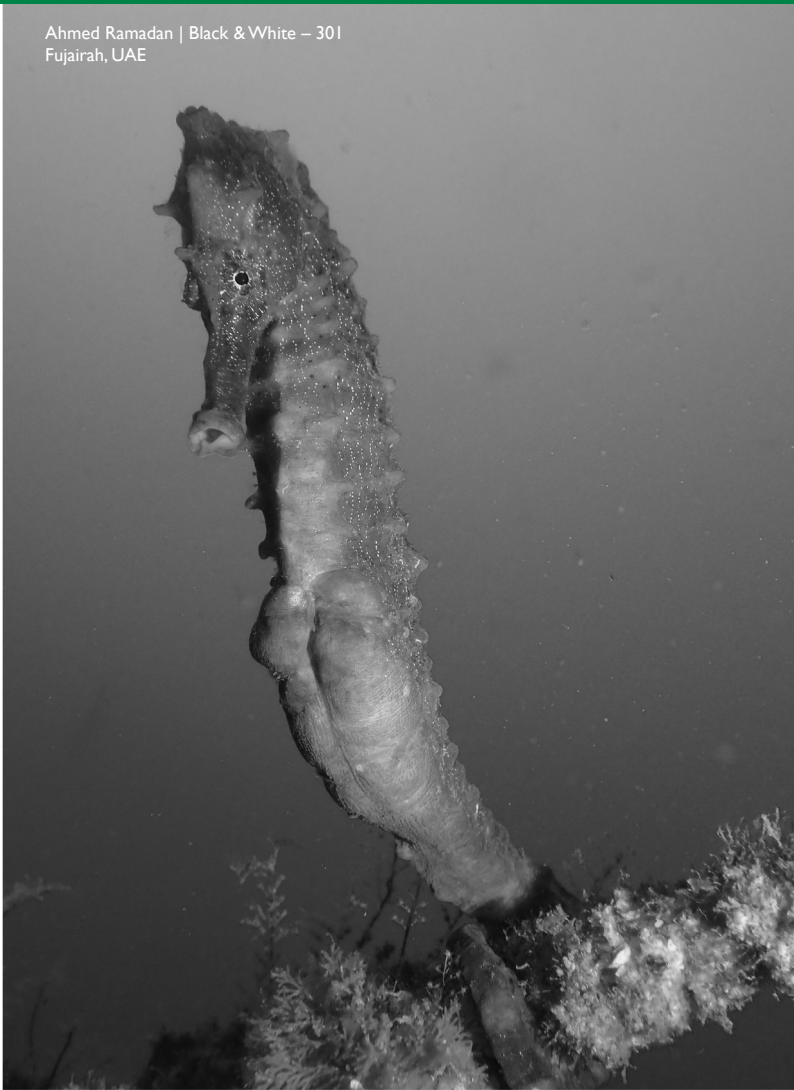
Gordon T Smith | Black & White – 295
Inchcape 10, Fujairah, UAE



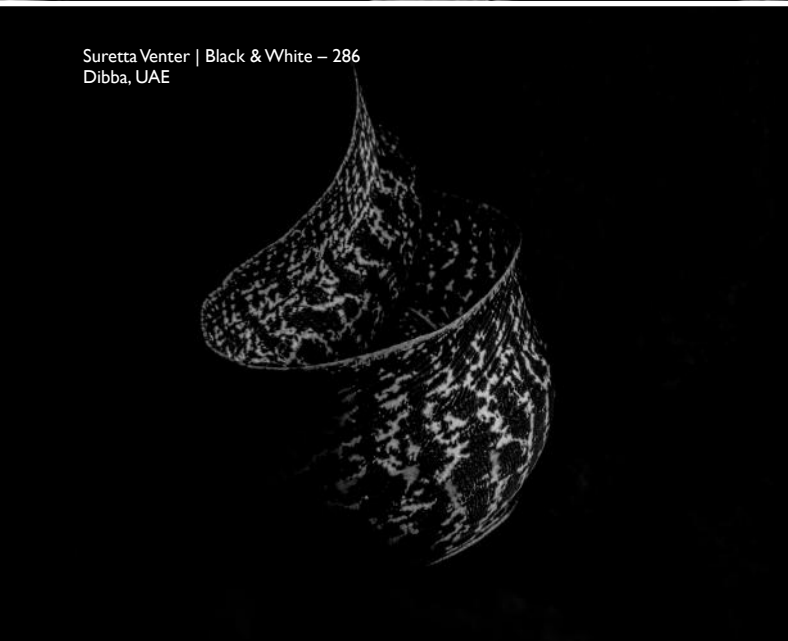
Nassim Miri | Black & White – 310
Sharm El Sheikh, Egypt



Ahmed Ramadan | Black & White – 301
Fujairah, UAE



Suretta Venter | Black & White – 286
Dibba, UAE



Yevheniia Rehush | Black & White – 286
Dubai, UAE



Sarah Kelly | Black & White – 267
Daymaniyat Islands, Oman



Angela Manthoupe | Black & White – 205
Northern Palu Ampa, Indonesia



UW PHOTOGRAPHY

HONOURABLE MENTION

Levente Rozsahegyi | Creative Underwater Photography – 432
Swimming Pool, Jumeirah, UAE



Ahmed Al Ali | Creative Underwater Photography – 430
Lembeh, Indonesia



Ola Khalaf | Creative Underwater Photography – 430
Khorfakkan, UAE



Gordon T Smith | Creative Underwater Photography – 355
The Blocks, Fujairah, UAE



Marwa El-Agroudy | Creative Underwater Photography – 339
Fujairah, UAE



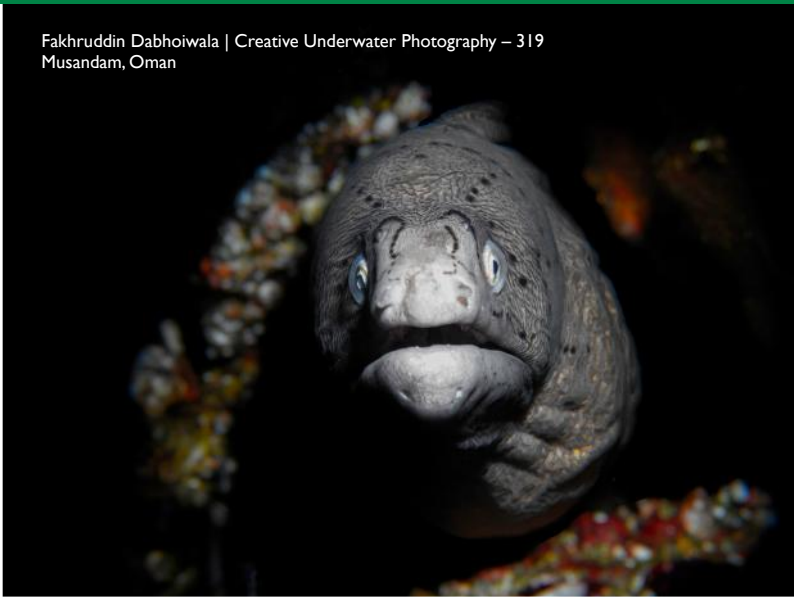
Sultan Althahab | Creative Underwater Photography – 344
Tulamben, Indonesia



Yevheniia Rehush | Creative Underwater Photography – 337
Dubai, UAE



Fakhruddin Dabhoiwala | Creative Underwater Photography – 319
Musandam, Oman



Ahmed Ramadan | Creative Underwater Photography – 307
Egypt

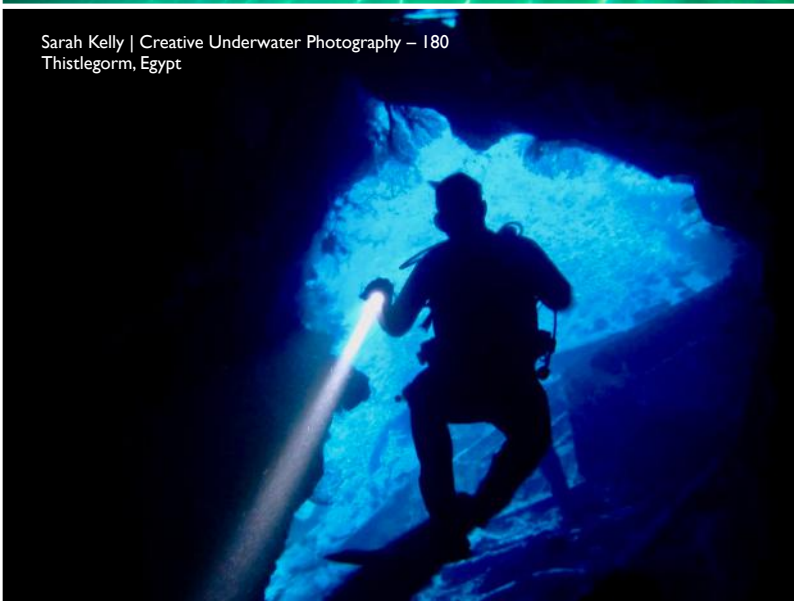


Emil Duffey | Creative Underwater Photography – 257
Zanzibar

Nassim Mird | Creative Underwater Photography – 270
Sharm El Sheikh, Egypt



Sarah Kelly | Creative Underwater Photography – 180
Thistle Gorm, Egypt





Angela Manthorpe | Creative Underwater Photography – 223
Sinai Peninsula, Egypt

HONOURABLE MENTION

Michael Rall | Macro – 448
Red Sea, Saudi Arabia

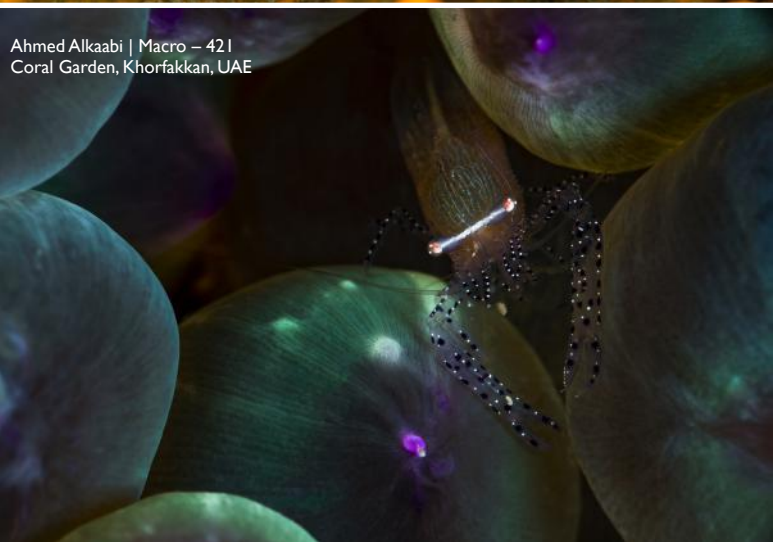


HONOURABLE MENTION

Philippe Lecomte | Macro – 470
Khorfakkan, UAE



Khalid Alraipqi | Macro – 423
Mafia Island, Tanzania

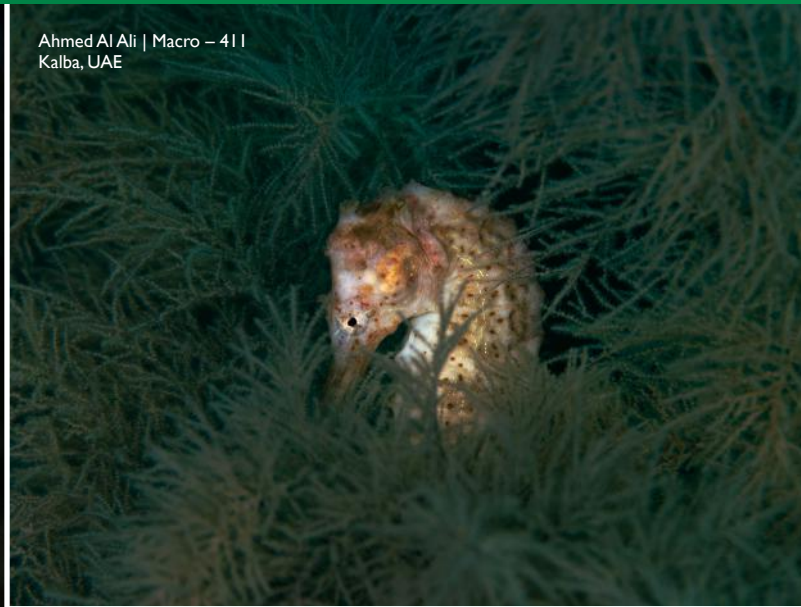


Ahmed Alkaabi | Macro – 421
Coral Garden, Khorfakkan, UAE

Oliver Farrell | Macro – 421
Khorfakkan, UAE



Ahmed Al Ali | Macro – 411
Kalba, UAE



Sultan Althahab | Macro – 403
Khorfakkan, UAE



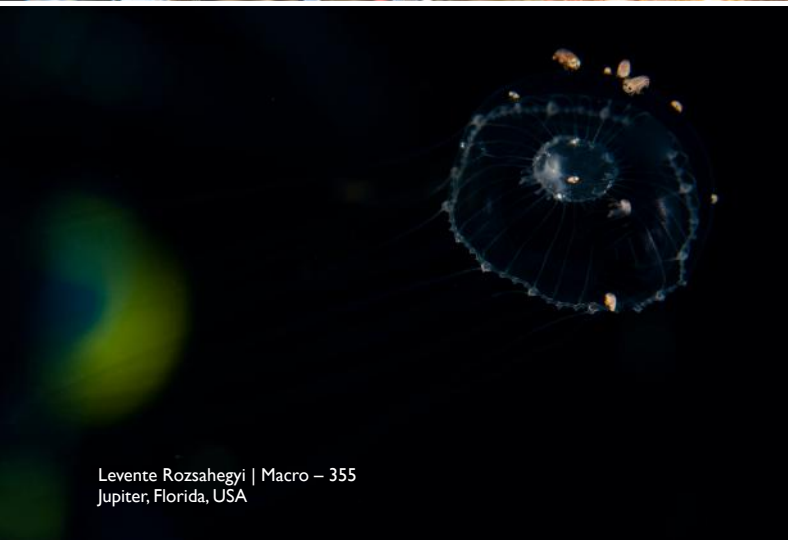
Shijo Skaria Jose | Macro – 368
Bai Polhi, Maldives



Marwa El-Agroudy | Macro – 357
Fujairah, UAE



Levente Rozsahegyi | Macro – 355
Jupiter, Florida, USA



Ahmed Ramadan | Macro – 323
Fujairah, UAE





Nassim Miri | Macro – 318
Sharm El Sheikh, Egypt



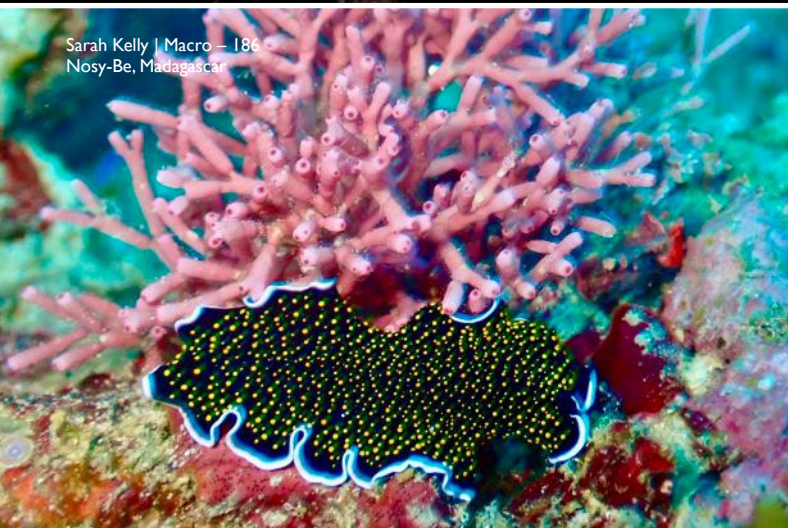
Gordon T. Smith | Macro – 298
Car Cemetery I, Bidya, UAE



Fakhruddin Dabhoiwala | Macro – 297
Musandam, Oman



Henrik Stahl | Macro – 279
Anemone Garden, Khorfakkan, UAE



Sarah Kelly | Macro – 186
Nosy-Be, Madagascar



HONOURABLE MENTION
Philippe Lecomte | Wide Angle – 419
Egypt



HONOURABLE MENTION
Michael Rall | Wide Angle – 401
Red Sea Saudi Arabia



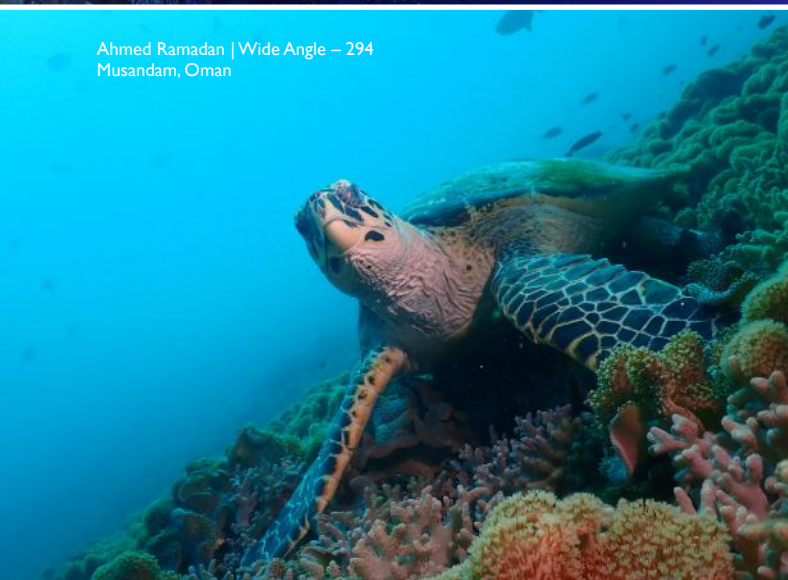
Ola Khalaf | Wide Angle – 380
Tulamben, Indonesia



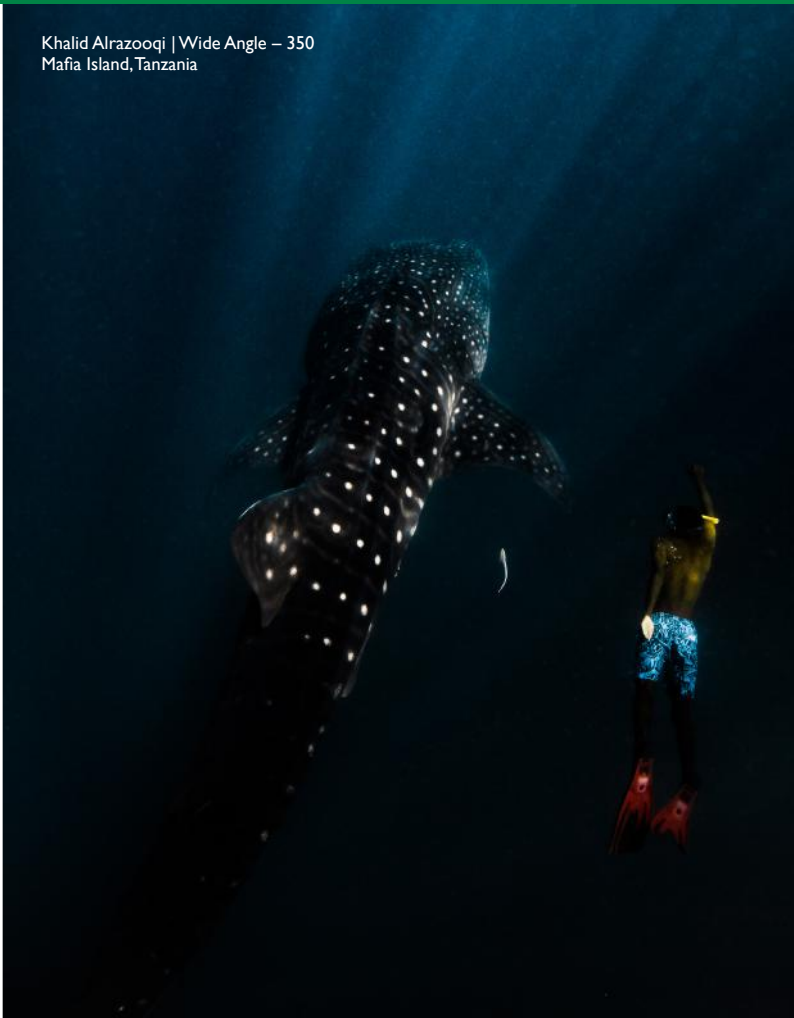
Oliver Farrell | Wide Angle – 376
Hesa Bay, Saudi Arabia



Lara El Lakkis | Wide Angle – 339
Brothers, Red Sea, Egypt



Ahmed Ramadan | Wide Angle – 294
Musandam, Oman



Khalid Alrazooqi | Wide Angle – 350
Mafia Island, Tanzania



Shijo Skaria Jose | Wide Angle – 328
Bai Pölhi, Maldives



Nassim Miri | Wide Angle – 285
Dibba Rock, Fujairah, UAE

UW PHOTOGRAPHY

Angela Manthorpe | Wide Angle – 266
Villingili, Addu Atoll, Maldives



Mishaal Ashok | Wide Angle – 266
Martini Rock, UAE



Gordon T Smith | Wide Angle – 261
Inchcape 10, Fujairah, UAE



Emil Duffey | Wide Angle – 229
Maldives



Yevheniia Rehush | Wide Angle – 183
Dibba Rock, UAE



Fakhruddin Dabhoiwala | Wide Angle – 199
Fujairah, UAE





The prizes were presented by their respective sponsors who attended the event, and by EDA'S Chairman, Essa Abdulla Al Ghurair and EDA'S Vice Chairman, Jumaa Bin Thalith. A big thank you to His Excellency Dr Thani Ahmed Al Zeyoudi for attending the event to be with us in congratulating this year's Digital Online winners, it's always an honour.



Sarah Kelly 3rd Place Wide Angle
Prize Sponsor: Supperclub presented by Mehreen Omar



Angela Manthorpe 3rd Place Macro
Prize Sponsor: Al Mahara Diving Center



Ahmed Ramadan 3rd Place Best of the UAE
Prize Sponsor: Xtar



Shijo Jose 3rd Place Creative Underwater Photography
Prize Sponsor: Emirates Diving Association





Levente Rozsahegyi 1st Place Wide Angle
Prize Sponsor: Emirates Diving Association



Ahmed Al Ali 1st Place Best of the UAE
Prize Sponsor: Emirates Diving Association



Ola Khalaf 1st Place Macro
Prize Sponsor: Emirates Diving Association



Khalid Alrazooqi 1st Place Creative Underwater Photography
Prize Sponsor: Emirates Diving Association



Philippe Lecomte 1st Place Black & White
Prize Sponsor: Xtar



Oliver Farrell 1st Place Video
Prize Sponsor: Divers Down UAE

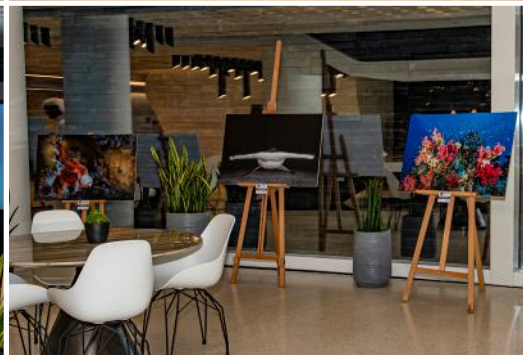


Overall Video Digital Online Winner 2022: Oliver Farrell (477 pts)



Overall Photography Digital Online Winner 2022: Michael Rall (2117 pts)







SOCOTRA

YEMEN'S TREASURE ISLAND

FEATURE AND PHOTOGRAPHY **ALLY LANDES**

Socotra had been on my bucket list for the last 8 years, and finally became a reality and an absolutely fabulous trip from start to finish! The most important part of planning this trip was to make sure we also got to discover Socotra's life underwater. With only a week at hand, our schedule worked out perfectly. We managed to get four dives in and not miss any of the must-see land excursions.





TOP ROW: La Sirena Chalets; The majlis by the sea; Salah and Yasser driving us to Wadi Kalyan. **BOTTOM ROW:** The gorgeous Socotran chameleon; The endemic bottle tree.

ABOUT SOCOTRA

The Socotra Archipelago lies approximately 250km northeast of Somalia and 380km south of Yemen. The archipelago is made up of four main islands; Socotra, Abd al Kuri, Samhah, and Darsah. The main island of Socotra is 135km in length, 42km in width and has a surface area of 3,650km² making it one of the largest of the Arabian islands.

Socotra's population is geographically and culturally divided into two groups of people. Those who live in the mountains who are kin-based tribal groups who have access to specific land and water resources, and may own land, who call themselves Bedouins. And those who live along the coastal plains with no tribal affiliations. They do not own land and are mostly African and Arab settlers who live along the coast.

PLANNING THE TRIP

Socotra had been on my bucket list for the last 8 years, and finally became a reality and an absolutely fabulous trip from start to finish! The island of Socotra has been a UNESCO world heritage site since 2008 and there is much to see and more still to discover.

I planned our visit through Socotra Trip, the only company to offer a chalet option to break up the camping days, which is perfect for those who like having showers/toilets to come home to and, most importantly, the opportunity to charge camera batteries and rinse off diving gear. If you are happy to go camping the entire week, there are several other companies to choose from.

The most important part of planning this trip was ensuring that we also got to discover Socotra's life underwater. With only a week at hand, our schedule worked out perfectly. We managed to get four dives in and not miss any of the must-see land excursions!

Flights leave/return from Abu Dhabi on Mondays for a week of adventure and you no longer need to provide Covid tests, but have your vaccination certificates ready. This is one trip to make sooner, rather than later. It's still raw and untouched, and we hope this gem won't change any time soon.

Flights to Socotra from Abu Dhabi are approximately an hour and 45 minutes long, and there are strict weight limits of 20kg per

checked baggage due to the full cargo loads booked by Soqotris importing goods on the only international flight to arrive on the island.

DAY 1 OUR FLEET

Socotra Trip have a fleet of three comfortable Toyota Land Cruisers on the island, in the best condition of all the groups we saw. Those cars became a second home as we spent hours crisscrossing the island throughout the week, taking in the scenery enroute to all our destinations. Our drivers, Salem Ahmed Qihan, Salah Abdurrahman Khayaat, and Muhamad Shinihan were all fantastic, and our co-driver Yasser Awas Talib was a fountain of knowledge about the island.

With you every step of the way is Lara Nunez Castelo, the Director of Operations, who organises all of the trip logistics (flights and visas included as this cannot be done by yourself) and your weekly schedule catered to the type of trip you want to do. She kept us updated throughout the build-up to the trip with important info we needed to know through our WhatsApp group, right up until our flight had landed in Socotra where she



The beautiful pools of Wadi Kalyan; The first of many fantastic lunches with our group and our Chef.

waits to collect you, and the adventure begins.

LA SIRENA CHALETs

The chalets are new – a guest house more than a resort – with basic amenities and everything you need, and a perfect home base to return to from excursions. There are 12 comfortable rooms with double or triple occupancy on a sharing basis. Single occupancy can be arranged at an extra cost. If you are in a group of friends, sharing is easy.

The chalets are included in the 8 days/7 nights Socotra Trip package. They all have ensuite toilets and showers, and closets to lock up the valuables you don't want to haul around with you. Your towels are freshened every day and they will wash 2 items of clothing per person each day if you leave it in the hamper, which you will get back 2 days later. Something to consider when you're aiming to pack light and you've got diving gear to bring!

There is a majlis area right over by the sea in which you can relax in the evenings or early on in the mornings. Your breakfast packs are delivered to the communal table outside your room where you also have your dinner in the evenings. And there are kettles in the rooms, with complimentary teas and Nescafe sachets to get you raring to go.

ENDEMIC SPECIES

Socotra is wild and raw with a surreal,

otherworldly beauty. It's home to more than 800 rare species of flora and fauna, around a third of which are endemic, found nowhere else on the planet. Socotra ranks amongst the world's most important centres of biodiversity combining elements of Africa, Asia, and Europe. It is described as the most alien looking place on earth. But like everywhere, climate change, plastic pollution, habitat loss and overgrazing threaten this magnificent place with livestock grazing the biggest threat to the plant life.

The endemic Desert Rose, the island's best known Bottle Trees (*Adenium obesum socotranum*) and Cucumber Trees (*Dendrosicyos socotranus* – the only species to grow in tree form) will blow you away seeing how they grow in these harsh environments. Sadly, with tourism really opening up now, we've seen a lot of these trees defaced with people's initials or full names carved into them, which is shameful.

The gorgeous Socotran chameleon (*Chameleon monachus*) is a species of chameleon endemic to the island, and they are listed as Near Threatened by the IUCN Red List due to overgrazing. We were very lucky to see one up close. They are so beautiful!

Pack a rugged pair of hiking boots as you're going to be doing a lot of exploring on rough terrain that will have you looking in every nook and cranny. Touch nothing, and take nothing

but photos and videos for your memories on this magical island, as this is one trip you won't want to forget.

WADI KALYAN

After checking into our chalets and a quick breakfast, we piled into our off-roaders for the start of our adventure. On the agenda was a short hike to the beautiful Wadi Kalyan and a swim in its freshwater pools. We made the obligatory roadside stops along the way to see our first bottle and cucumber trees.

From the top of the viewpoint, you can see the Indian Ocean in the distance. The wadi hike is an easy and short one to be made in hiking boots/shoes, but you should also pack water shoes, plus your swimmers and a GoPro to get in that beautiful canyon's gloriously cool waters.

We had the whole place to ourselves to swim and jump into the deep pools from the cliff faces. Swim further up into the canyon and you'll discover quaint little water falls to sit under and wash away all your worries!

When it's time to move on, you hike back up to the cars for a short drive back to the viewpoint where a fantastic lunch awaits you under a canopy. This will be your first introduction to a common experience throughout the trip – 'Lunch with the Vultures' – for a novel end to a fantastic first day!



TOP ROW: Egyptian Vultures waiting for scraps of food; One about to take flight; The colourings of a young, and an adult Egyptian Vulture. **BOTTOM ROW:** Picking up dive equipment; The fishing boats used for dives. **OPPOSITE PAGE:** The marine life at Rush; Homhil and the beautiful freshwater pool on the cliff edge.

THE EGYPTIAN VULTURES

The scavenging Egyptian Vultures (*Neophron percnopterus*) are found absolutely everywhere on Socotra.

They are an important part of the local communities and environment, and great fun to observe. Unafraid of humans, they flock like chickens pacing around waiting for scraps. It's awesome watching them in flight as they soar the thermals. They are great in clearing all left-over food – bones and all included – so they clean the environment up well, but it's when you see them picking their way through the ever-growing piles of rubbish down in the villages and towns that you imagine these birds' intestines must be full of plastics.

The darker feathered vultures are the juvenile birds waiting to get their golden adult feathers in. With quite a few rare species of bird, Socotra is a paradise for twitchers, a few of whom we met from other groups! There's definitely something for everyone here.

DAY 2 THE DIVING

There is only one dive guide on the island with a good reputation called Naseem, though he has yet to complete his Divemaster course, but he knows his dive sites well. Divers should all be experienced, as there is no hyperbaric chamber on the island if anything were to go wrong, and no oxygen on the boats. Even though you are limited to 20kg on the flight, if you have your own equipment, travel with it. The dive gear for rent is in good condition, but it's expensive, as is the diving.

Fishermen and their small wooden boats are the only transport to the dive sites, adding an additional fee to the diving. It may look

daunting at first, but it's part of the Socotran adventure, and as long as there are no more than 4 sets of equipment per boat, it makes for a comfortable trip. However, choppy seas would be a concern in these little boats!

Bring dive booties with you to reach the boats from the beach, as there were so many dead Long-spine porcupinefish (*Diodon holocanthus*) all over the coastline, and a lot of sharp rocks at some entry points, so you're going to want to protect your feet. If you wear full foot fins, put your booties in your pockets for the shore dive, or leave them in the boat. Don't forget to bring a small dry bag for sunglasses, hats, sun cream, etc.

DIVING AT RUSH

Our first dive was at Rush on the morning of day 2 on the north-eastern coast of Socotra's Arabian Sea. It was an easy dive with a maximum depth of 11.3 metres at 27°C. A 5mm wetsuit is ideal, as it got a little chilly at times in a 3mm.

It's a scenic dive site with lots of healthy coral structures, although there is also a lot of broken coral caused by two severe cyclones that happened in 2015.

We counted five Whitetip Reef Shark (*Triaenodon obesus*) sightings throughout the dive, as well as a Blotched Fantail Ray (*Taeniuraps meyeri*).

There are plenty of beautiful Scorpionfish to watch out for, so many lobsters, and I saw three species of cleaner shrimp that you'll spot just about everywhere if you look up in the rock crevices, which are a treat for the macro photographers. And of course, you'll see most of the common reef fish of the Arabian Sea,

Arabian Butterflyfish (*Chaetodon melacpterus*), Longfin Bannerfish (*Heniochus acuminatus*), and Golden Sweepers (*Parapracanthus ransonneti*). There are plenty of yellow tinted Ternate Chromis (*Chromis ternatensis*) and electric blue outlined Trispot chromis (*Chromis tripartita*) playing peekaboo amongst all the table corals of Acropora.

Once resurfaced, you pass your weight belt and kit up, and getting yourself back into the boat is all down to arm strength. There are no ladders, so a helping hand with a good strong kick of your fins will do it. There is nothing graceful about this – it got rather comical. You also need to make sure someone in the boat stands on the opposite side when a body comes crashing in to counterbalance.

HOMHIL

The second part of day two was a trip to the gorgeous landscapes of Homhil, where we saw our first of the iconic Dragon Blood trees, found nowhere else in the world, and several species of Frankincense trees. This terrain is full of sharp rocks and loose grit, so sturdy hiking boots/shoes are the only sensible way to go.

First we stopped for our private lunch by Socotra Trip's chef, sheltered from the sun at a campsite before heading into the wadi for the afternoon.

Homhil was breathtakingly picturesque. The hike leads you to a beautiful hidden freshwater 'infinity' pool on a cliff edge overlooking the valley below to the Arabian Sea. The only other travellers were already packing up to head back to their campsite when we arrived, and it was all ours for the best of the afternoon light. The walk back during golden hour was spectacular!





ABOVE: Diving at Di Hamri. OPPOSITE PAGE: An aerial shot of Arher; Diving at Erissel Wreck.

DAY 3 DIVING AT DI HAMRI

Our two dives on the start of day three were at Di Hamri which is also on the northeast of the island. We set off on our boats to start with the deep dive at 30m where we didn't see very much at all except for schools of busy body Bigeye Trevallies (*Caranx sexfasciatus*) which are always an awesome sight.

The second excursion was a fantastic shore dive with a healthy coral reef at a max of 11 metres with lots to see in all the nooks and crannies. There is again, a lot of macro. We had different species of moray eels including a Geometric Moray (*Gymnothorax griseus*), a Jenkins Whipray (*Pateobatis jenkinsii*), a massive grouper who didn't hang about long enough for a photo, octopuses wedged in tight to their dens, a beautiful Halfmoon Triggerfish (*Sufflamen chrysopterum*) which I'd not seen before, Steephead Parrotfish (*Chlorurus strongylocephalus*), Arabian Butterflyfish, plenty of Golden Sweepers, the White-spine Surgeonfish,

as well as lots of the other common species of colourful Arabian Sea reef fish. The entry and exit to this dive site was very rocky, so booties were mandatory. We stored ours in our pockets during the dive.

ARHER AND CAMPING

After our dives and lunch, we headed to the stunning location of Arher in the East, to see the spectacular White Dunes (the highest in Socotra), where we had our first night of camping on the beach, under towering cliffs covered in powder-white sand dunes! The dunes were created by monsoon winds and are constantly shifting. You can get a great view from the top if you're up for the clamber.

There is a freshwater stream running from a cave in the cliff face down to the beach where you can rinse off the salt after a swim in the sea.

If you look hard enough, you will see freshwater eels in the streams.

Keep your shoes on as there were lots of dead Long-spine Porcupinefish on this beach also which are hard to see in the dark. Stepping on those spines in bare feet would not end well.

DAY 4

It was an early wake up on the fourth morning at our campsite to a beautiful sunrise. Our fishing fanatic got some angling in before breakfast, and we caught a glimpse of a small pod of dolphins swimming past whilst waiting for the delivery of our freshly baked flat breads to arrive from Erissel for our breakfast, before heading out for our fourth and last dive in Socotra!

DIVING AT ERISSSEL WRECK

What a fantastic last dive we had on the very Eastern tip of Erissel where the Arabian Sea and Indian Ocean meet. There are apparently seven different spots to dive from here. This area is made up of lots of different (some sources say hundreds and some say





The spectacular Hoq Cave excursion with the team.

thousands) shipwrecks that have all run aground along the rocks at low tides over a timespan of anywhere between 50 years and hundreds, depending on where you get your info. We'll never know, but there are clearly a lot of wrecks to explore!

This dive takes about 20 minutes to get to by boat, with a maximum depth of seven metres with very strong currents. You have to backward roll into an immediate descent at the anchor line and once under, you are surrounded by large shoals of coral reef fish; White-spine Surgeonfish (*Acanthurus leucocheilus*), Emperor Angelfish (*Pomacanthus imperator*), Bigeye Trevally (*Caranx sexfasciatus*), and the smallest, the Indo-Pacific Sergeant (*Abudefduf vaigiensis*). We saw a couple of Honeycomb Morays (*Gymnothorax favagineus*) and there's so much more to see over the different sections of the broken-up wrecks.

It was a great way to start this day. It also proves there is plenty more to discover underwater around the island.

HOQ CAVE

After our morning dive, we headed over to Hoq Cave on the northeast of the island, which is 400+ metres above sea level. No one seems to know how deep Hoq cave actually goes (changes slightly on the info found online), but we reached the end of the marked trail at 2km. We brought our own head torches, though Socotra Trip do bring head torches for everyone. A powerful torch is ideal to light up

all those amazing stalactites and stalagmites for some amazing photo opportunities. The group paused at the deepest part to switch off all torches for a minute, where we discovered the true meaning of darkness!

When you research caves in Socotra, it turns out Hoq is not the largest one, but it is the easiest one to get to. The hike up is relatively easy which takes a minimum of 1 hour/maximum 1.5 hours depending on fitness levels. The views from the top are fantastic!

During the cooler months, the temperatures inside the cave may drop considerably, so a small jacket is recommended.

You need to keep the noise levels down as the cave system is sensitive. You can see a few of the stalactites have broken off and crashed down. It's sad when you think these have taken hundreds of thousands of years to form, and just like that, they've broken. It is a beautiful cave, we're so lucky to have seen it so raw.

HADIBO

On the way back to our chalets, we made a quick stop in Socotra's capital, Hadibo, where you can purchase local sweets, Socotran honey (highly recommended and sold in plastic water bottles), and the 'miwaz' which is the rectangular cloth of embroidered or patterned material worn by Soqotri men. They are wrapped around the waist and secured by folding the top part in, and sometimes secured with a belt. They make great beach sarongs.

DAY 5

TANKS AND ROCK ART

We had a couple of fun stops on the morning of day 5. To satisfy the 'big kids' in the group, we had to get up close and personal with the old rusty Soviet T-34 tanks (from the days of WWII) that are lined up along the coast facing the sea to take lots of photos. They were brought onto Socotra Island in the 1980s (already rusty and out of action) and can be seen from the road coming in from the airport.

We made a second unexpected stop that Yasser had called for to show us an area with ancient rock art made in the limestone plateau of Eriosh, a slight basin that fills up with water during the rains of the monsoon, covering up the petroglyphs which we got to see so clearly. Following some online research, we discovered that this rock art is all over Socotra, but remains one of the most neglected areas of study on the island.

These carvings are thought to be by Ethiopian tribes, and date back to the second half of the first millennium BC, making them thousands of years old! We clearly saw motifs of goats, camels and feet, mostly in pairs. The feet are believed to suggest the site was considered sacred during the early Christian period on Socotra. The fact that water covers the area symbolises birth, death and fertility, and they suspect rituals were held during the monsoon season for the life-giving water it would bring.



TOP ROW: One of very many photos taken of the boys and their tank; The rock art clearly showing a goat and feet. **BOTTOM ROW:** A view of Dixam's Firmihin Forest with Dragon Blood Trees as far as the eye can see; The camels at Deham beach.

DIXAM

The next stop was Dixam to see the endemic Dragon Blood Trees (*Dracaena cinnabari*) in the hundreds and get a high view point of the Firmihin Forest, a nature reserve in the Haghier Mountains which are about 1,500m above sea level. It's incredible to see so many of these majestic trees and gawp at the wonder of them surviving in such harsh landscapes in the rugged granite peaks. The cyclones from 2015 damaged a lot of them, but they are incredibly resilient, and the majority remain standing, with their unique thick umbrella-shaped canopies holding strong. They are named after the red blood-like colour of the sap they produce, and they can live to more than 300 years old.

They are however, listed on the IUCN's Red List as 'Vulnerable'. If these trees are not protected, they may go extinct, which would be a terrible tragedy. Their growth is getting sparse and there is a lack of regeneration in the core habitat. The local people have noticed a decline in rainfall over the years which means it's becoming too dry for seedlings to work their magic. Global warming is one factor, and the other is overgrazing, as goats are no longer controlled and run wild, destroying everything they come across, as well as changes in land-use patterns.

There is a random flute player that can be found in the same spot every day. He sits under a Dragon Blood tree to play his rustic sounds to Dixam's visitors. This is an encouraged stop in which Socotra Trip supports him. He's all

smiles and shy for the big round of applause, it's nice to see.

It was then time for another fabulous lunch. We missed out on the spot planned for us with a view, another group had beaten us to it which was very rare, but we can't complain with our second option. We had a huge entourage of Egyptian Vultures join us and we enjoyed watching them feast on our scraps.

Afterwards, we drove over to yet another viewpoint where you can sit over the edge of a large drop-off and have your photos taken – clearly not one for those with a fear of heights. It's also a great spot to watch the Egyptian Vultures riding those thermals.

DEHAM BEACH & THE MANGROVES

Before heading back to our chalets for the night, we made a stop to Deham beach to catch the sunset and see the camels feeding on the mangroves. The Ghubba Village which is further along the coast, is a pilot site for one of the mangrove ecosystem restoration projects they have set up in the north of the island. We didn't go there to see the project, but it was interesting reading up about it afterwards. Mangroves are in declining numbers in Socotra and there are obstacles for the regeneration and replanting of these trees. Animals are a major problem (crabs, camels and goats) as they eat the seedlings and the growing shrubs.

The mangroves are a vital element to Socotra's coastal and marine habitats. Not only are they

important to the local communities for fuel (wood and charcoal) and in construction (plaster for houses), they are also used for animal grazing, which allows them to sell their milk and meat.

Mangroves are especially vital in protecting the coasts from erosion and act as wave breakers that help minimise flooding and the impacts storms have on coastal settlements. They provide nursery habitats for species of fish and most importantly, they fight against global warming by removing carbon dioxide from the atmosphere.

DAY 6

DETHWAH LAGOON AND CAMPING

On day six we headed to the northwest of the island to Dethwah Lagoon, a protected area and an important bird sanctuary where the Egyptian Vulture and the Socotra Cormorant (*Phalacrocorax nigrogularis*) breed. The tidal inlet is open to the sea, and surrounded by sand dunes and 400 metre high limestone and granite cliffs. The sea grass habitat provides an ideal refuge from predators, acting as a feeding area and shelter for juvenile fish.

Socotra Trip really do have the best campsite location here, which is tucked away over on the furthest end and completely hidden away from the masses. The campsite is part of a lovely local lady's home, who came down from her house to embrace Lara like a family member coming home to visit. She was ecstatic to say hello to the rest of us, welcoming us



TOP ROW: Enjoying Ellai's hospitality and first-class entertainment; The whale bones tailored into a banister, marking the entrance to his cave; The perfect host, serving us his mussels and squid. **BOTTOM ROW:** The extraordinary experience shared on Ellai's lagoon tour, meeting his octopus, and eating the freshest seafood we've ever had.

into her domain with two shelters, one for us to lounge in, and another for our meals that overlooks the camping space the Socotra Trip team busily set up for us. There are two rustic but very clean private outdoor toilets and showers a minute's walk away on her property, supplied by her freshwater well.

The experience to follow was completely unexpected, and one of our most memorable experiences to date!

MEETING ELLAI

We'd happened on a BBC article about the 'Hermit of Socotra' months before the trip. We thought how fantastic it would be to meet him, and then we forgot all about it. In no way did we put two and two together when we were told we were going out for lunch in a cave. We were instructed to wear our water shoes as we were going to get our feet wet and walk around the mountain and through the lagoon.

The walk along the beach and mountainside around the edge of the lagoon took us about 20 minutes. Muhamad Shinihan led us along the zig-zagging mountain path until we reached our meeting point, where he shouted out up at the mountain to announce our arrival. The call back told us to hold on and wait. I looked up and watched the Egyptian Vultures circling us from above.

It took a good five minutes before we were told to come up through the natural rock archway into the realm of Ellai. A handsome, charismatic character with a weathered face and lean build, Ellai was bare chested and wearing a brightly patterned 'miwaz', his hair sprinkled with glints of sea salt reflecting in the sun. He greeted us with a warm and

welcoming smile as he patted our shoulders, guiding us up along another path on a steep incline. He gave Lara a massive hug before darting off to guide the previous group down that were just leaving – we now understood why we had been made to wait. Ellai is quite the celebrity!

Arriving at the mouth of Ellai's cave, the first thing you see are the big old whale bones fixed into a sturdy banister to help you hoist yourself up the stone steps onto the wide ledge covered in mats that serves as a dining area. We removed our shoes and sat down to enjoy the view overlooking the lagoon. What a fantastic venue!

Two of his sons who were in charge of watching over the food that had been prepared, probably to make sure the vultures didn't get to it before we did. While we waited for Ellai to get back, we learnt that he and his wife have had 12 children, but only 6 survived their childhoods, and these boys are his youngest.

Ellai bounded back up to us once he had sent the other group off on their way, and straight to his kitchen area to serve us his dishes of barbecued fish, mussels, squid and rice. The shell plates really were a fantastic touch and if you weren't comfortable eating with your hands, you had the mussel shells to act like little spoons.

We then had tea whilst Ellai explained that this cave is where he was born and where he grew up with his parents and siblings. It's home and he'll always keep coming back to it. He also has his house in Qalansia where he goes to be with his family on days off, as his wife prefers their house. When the cyclones hit, he brought

his family here, which turned out to be one of the island's safest locations. He described how high the water levels had risen but they were untouchable, compared to the devastation that happened in the town.

Listening to all his experiences was brilliant. He has learnt his broken English through the different foreigners he has met, and he knows enough to take centre stage. He has a sharp wit, and gets dressed up in accessories to give life to his stories. He truly had us in stitches!

After our lunch and entertainment, Ellai wanted to show us his lagoon, so we got our water shoes back on for the next experience.

He couldn't be more at one with this environment if he tried. He breaks into fresh oysters on the rocks at the water's edge, and feeds them to us fresh from the sea. He introduces us to his friend, an octopus who knows him well, and doesn't seem to mind being plucked out of the sea for a show. Completely tolerant of being manhandled, she actually wraps her tentacles around his leg and holds on while he walks her back to her den, where she casually lets go until they next see each other.

He showed us how to find cuttlefish egg nests, and squishy blobs that squirt bright purple ink if accidentally trodden on. Ellai referred to them as 'sea potatoes', but after some research, we believe they are sea hares.

He then found some Pen Shells and opened them up to feed us clean clams he cut up into bite sizes for us to try. We then tried Long-spined Sea Urchins, which he broke open with an iron rod. It was the freshest seafood we've ever had!



ABOVE: A view down over Detwa Lagoon where Ellai's cave is located on the left side of the mountain in the background.
BOTTOM ROW: The whale shark encounter was a spectacular turn of events at Qalansia; The prized tuna caught, marking the first and only catch of the entire trip.

All-too-soon, it was time to wade back to our camp through the sea grasses to head for a swim and catch the sunset over on the white beach before the day was out. An incredible day, and a real highlight to the trip!

DAY 7 QALANSIA

I had really been looking forward to our Gyrocopter rides on our last day, but they were unfortunately cancelled as the pilots were called out on an emergency. Others in our group who weren't diving got to do theirs on day three, and the experience is highly recommended. Instead, we headed to Qalansia fishing harbour and took two fishing boats out to see if we could spot any dolphins, and we got better!

Instead, we came across two Whale Sharks (*Rhincodon typus*), one with a hitch hiking Remora fish (*Remora remora*), so it was masks and snorkels on for a spectacular swim! The boat trip heads out to a beautiful stretch of white sand beach several kilometres long which you'll only share with a handful of other groups for an hour or two of relaxing, swimming and snorkelling, before returning to the village harbour.

Then it was back to the chalets for our dinner and last night, and to pack for the next morning's flight back to Abu Dhabi.

SOCOTRA TRIP MEALS

Fresh fish cooked on an open fire is always on the menu for lunch and dinner (chicken can be arranged on request) and our Chef was fantastic at making sure we were well fed. There is always a vegetable option, rice and

pasta at dinners. Meals are always finished with tea, fresh fruits and dates.

Breakfasts at the chalets were tupperware containers packed in brown paper bags (could be eaten to go) with a bottle of water; a juice box, a hardboiled egg, fowl mudammas (fava beans), a small sandwich, tomatoes and cucumber slices with olives, zaatar, cheese or chocolate mini croissants, and a slice of sponge cake. We made our coffees in the morning in our rooms.

Camping breakfasts were on the beach with scrambled eggs, fowl mudammas, flat breads, and fruits, with hot water for coffee or tea.

DAY 8 DEPARTURE

It's always sad to leave such a spectacular destination, but this is one goodbye where we turned to say, "See you next time!" Who knows! It's not far from us, and we know there is still so much to see and explore. There's the entire south of the island we never saw, and all the other dives still to be discovered, and those on the Indian Ocean side!

Our flight back to the UAE was to leave from 8am, give or take. Note, these schedules change within the seasons, so it's not guaranteed they will all be morning flights. There is always a delay either way, but the one from Socotra was more delayed than the 20 minute one from Abu Dhabi. We reached Abu Dhabi at noon instead of the scheduled 10:30am.

Reality kicks in the minute you step off that plane into Abu Dhabi's International Airport – noise, bustle and traffic still exists!

Socotra trip

#TheMostAlienPlaceOnEarth

SOCOTRA TRIP

LARA NUNEZ

Director of Operations

Tel: +971 56 408 7999

Email: lara@socotratrip.com

www.socotratrip.com

SOME EXTRA ACTIVITIES AVAILABLE:

- Gyrocopter
- Diving
- Kitesurfing
- Kayak and SUP
- Fishing

WEEKLY FLIGHTS

Air Arabia from Abu Dhabi

RECOMMENDED TO BRING:

- Head torch
- Cotton sheet sleeping bag
- Neoprene water shoes/dive booties
- Travel towels
- Small waterproof bag for boats
- Dive gear

TRAVEL INSURANCE

There are a few options out there that cover Yemen, and being residents in the UAE, we went with AXA. AIG are more expensive, and there is Global Rescue if you are not a UAE resident. Always have your DAN insurance with you if you are a diver.

BEST TIMES TO DIVE

From September to October and from March to May, when the winds drop and the seas are calm. Visibility is between 10-40 metres.

SOCOTRA INFO

CAPITAL: Hadibo

CURRENCY: Yemeni Rial

US Dollars & UAE Dirhams are accepted.

POPULATION & LANGUAGE

Socotra has a population of 60,00, with about 44,000 who speak Soqotri, an ancient dialect without script.

ETHNIC GROUPS

Majority: Soqotris

Minority: South Arabians

UNESCO WORLD HERITAGE SITE

Socotra Archipelago, designated in 2008.





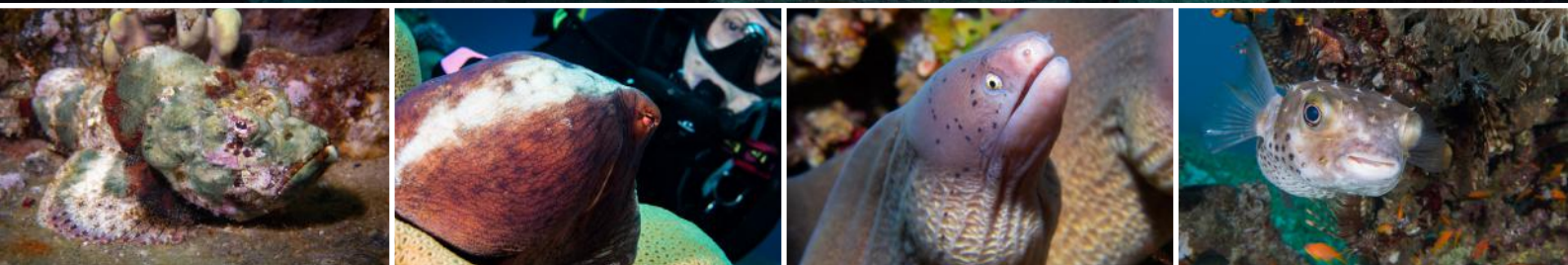
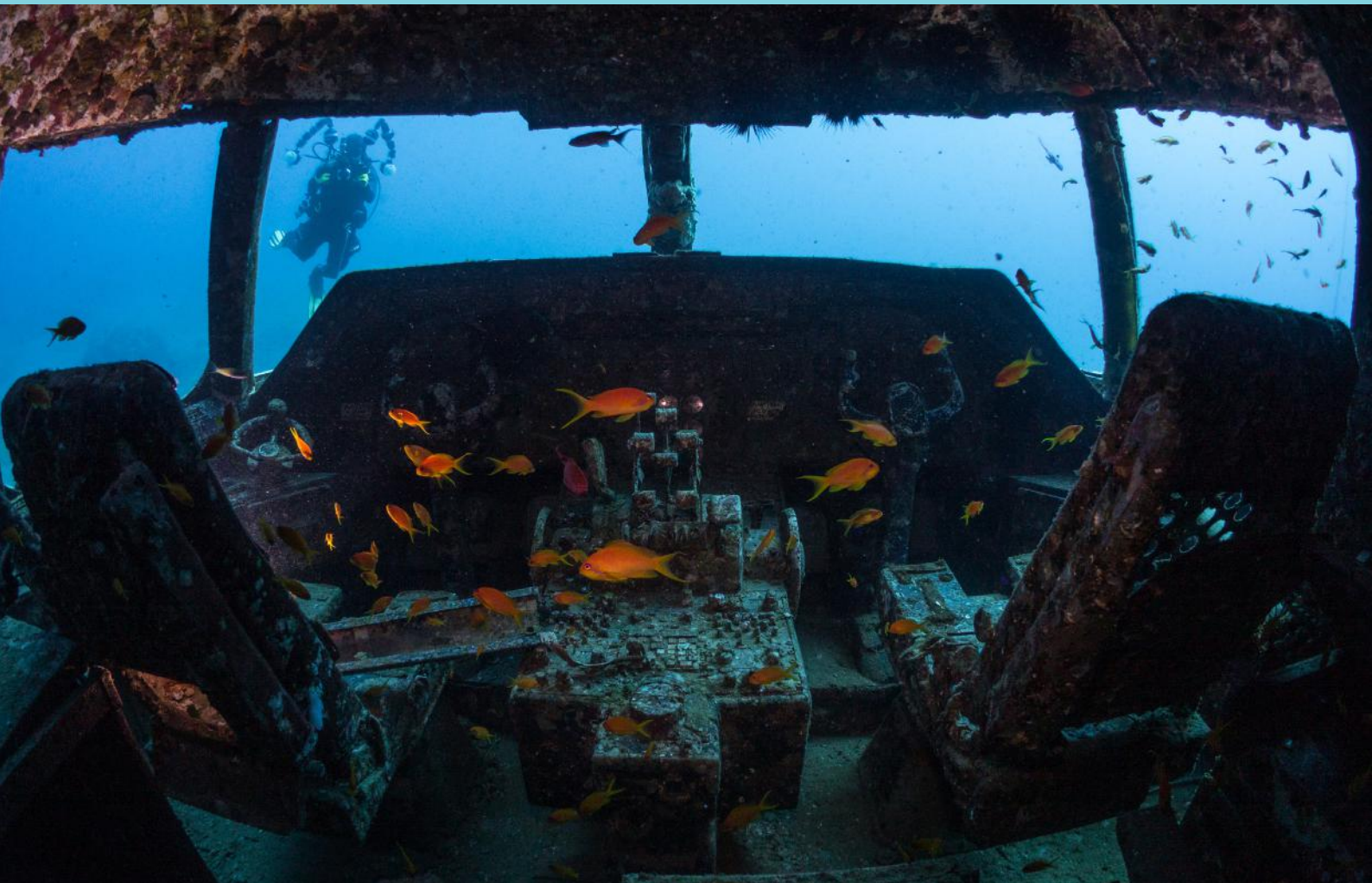
AQABA

THE JORDANIAN KINGDOM OF WRECKS

FEATURE & PHOTOGRAPHY **ANTHONY LEYDET**

Diving in Aqaba will allow you to do some incredible dives, starting with the most prominent site, the only military underwater museum in the world! But Aqaba offers much more than that, making it an important part of your stay in Jordan.

COVER PHOTO: The Lockheed C-130 Hercules, a Royal Jordanian Air Force aircraft, sunk in 2017 at a depth of 17 metres.



ABOVE: It is possible to visit every corner of the Lockheed TriStar, such as the cockpit pictured here. **BELOW:** There is an incredible array of marine life.

Much less widely publicised than its neighbouring counterpart – Egypt, Jordan is a world-class diving mecca with thirty kilometres of coastline overlooking the Red Sea with the town of Aqaba in the extreme south of the country. However, with the strong will of the government and under the aegis of its sovereign, King Abdullah II, Jordan has been able to develop its appeal to divers from all over the world. Diving in Aqaba will allow you to do some incredible dives, starting with the most prominent site, the only military underwater museum in the world! But Aqaba offers much more than that, making it an important part of your stay in Jordan.

Wedge between Saudi Arabia to the south, and Israel to the west, Aqaba offers Jordan a tiny window of the Red Sea. At the end of the 160km long Gulf of Aqaba, which separates the Sinai from the Arabian Peninsula, we are at one of the ends of the Red Sea. This peaceful seaside resort has resolutely turned to water sports, in particular scuba diving. With

Egypt attracting the majority of divers, the government has decided to boost this sector. King Abdullah II is a keen diver and a major asset to the success of this project. A good majority of the seabed in Aqaba – about seven kilometres – has been classified as a marine reserve for several years now.

AN UNDERWATER MILITARY MUSEUM – THE FIRST OF ITS KIND

For several decades, Aqaba has had a reputation as a wreck diving destination. In 1999, the Royal Marine Conservation Society of Jordan (JREDS) decided to create an artificial reef by sinking a tank, the famous M42 Duster, situated on a sandbank 5m deep near the shore. It attracts scuba divers for their safety stops, and snorkellers. However, it was not until 2019 that the most amazing underwater museum was created, especially for military enthusiasts. The Military Underwater Museum, the only one of its kind in the world, consists of 21 military aircraft arranged on a gently sloping sandy bottom in a tactical battle formation, offering

a most exciting underwater adventure. At depths of 6 to 28 metres, it's easy to get caught up in the game, and the impression of being in the middle of a war scene is quickly felt. Helicopters, anti-aircraft guns, tanks, ambulances, reconnaissance vehicles, troop carriers, and Jeeps. These machines are of various origins and eras and follow one another before the astonished onlooking divers. It's such an unusual site. Moreover, at least two dives at this museum allow us to appreciate the work accomplished because the site is vast. In the midst of all the machines, it is amusing to come across the numerous species that come to find refuge there. A diodon hides under a metal door while a school of catfish roams between two tanks. It is also very pleasant to finish with the two Jeeps on the sandbar at the end of the dive.

Having not been involved in any armed conflict since 1973, Jordan is a stable and welcoming country. No wonder there are more tanks beneath the surface than above ground!



ABOVE: The most famous wreck in Aqaba is the Lebanese cargo ship named Cedar Pride.



ABOVE L-R: A diver exiting the TriStar's air intake; a school of catfish roam amongst the wrecks at the Underwater Military Museum; Deep Blue Dive Centre's boat above some Jeeps.

WORLD-CLASS WRECKS

Other spectacular wrecks have also been showcased in Aqaba waters. Staying on the topic of the military, let's start with the Lockheed C-130 Hercules, a Royal Jordanian Air Force aircraft, sunk in 2017 at a depth of 17m. Originally undamaged, a heavy storm broke it up which gave it a more dramatic look, as if it had crashed into the sea.

In August 2019, an imposing airliner was sunk to create a new and unusual dive site. The 54m long Lockheed TriStar is located on a sandy bottom between 15 and 28 metres. It has been specially adapted so divers are easily able to enter it. The doors have been removed, as have the middle row of seats. It is possible to visit every corner of the aircraft, such as the cockpit, or to exit through the air intake at the rear of the aircraft.

Returning to something more classic, one of the

most famous wrecks in Aqaba is a Lebanese cargo ship named Cedar Pride. Reputed to be one of the most beautiful wrecks in the Red Sea, it was deliberately sunk in 1985 at the request of King Abdullah II. Indeed, this 74m long cargo ship arrived in Aqaba in 1982 and was partially destroyed by a violent fire in August of the same year. After lying abandoned in the port, the idea of creating a wreck like none other in Jordan was obvious. Lying on its port side at 27m at its deepest, the wreck is accessible to all levels of divers like most of the sites in Aqaba. It is now a very well colonised and colourful wreck with soft corals, many hard corals, and a high variety of marine life. It is also possible to safely explore the interior of this wreck.

It is important to note that all of these wrecks have been cleaned and decontaminated, and that the sites have been carefully studied in order to generate the minimum possible impact on the environment.

WRECKS AND THEIR BEAUTIFUL CORAL GARDENS

Keep it in mind, Aqaba is definitely a wreck-oriented diving destination, but it's accessible to all dive levels. Let's not forget that we are in the Red Sea, with its incredible biodiversity and its sumptuous coral reefs. Even if the reefs are less developed than those in Egypt, the Jordanian coast definitely has very beautiful coral garden dives, where each reef is abundantly colonised by a multitude of species. Underwater photographers are delighted with easy access from the shore, and depths that allow for stress-free diving. The house reef at Deep Blue Dive Centre, located on Tala Bay beach south of Aqaba, is on a par with some of the house reefs in countries such as Indonesia and the Philippines, with an incredible array of creatures. Frogfish, moray eels, nudibranchs, shrimps, clownfish and boxfish are just a small sample of what can be found below the surface. The presence of a



BOTTOM ROW: The incredible biodiversity found amongst these beautiful and colourful coral reefs; a split shot showing the healthy reef below the surface under clear blue skies.

few pontoons allows you to spend some good photographic moments playing with the lights and the species that hide there!

The Power Station site is a must as it is quite simply the only true drop off in Jordan! The wall starts at about 15m and plunges into the abyss. It is colonised by gorgonians and black corals, and lots of fish hiding in the bowels of the drop off. A little higher up, a superb coral garden is found that takes us close to the edge with a lot of coral cover. There are a lot of yellow salad corals in particular!

Often seen as a place where tourists come to try a day's diving, many are disappointed that they did not plan more time to enjoy the Aqaba seabed, and yes, Aqaba is a real diving destination and not an add-on!

WHAT TO DO AFTER A STAY IN AQABA?
It would take several weeks to visit everything

Jordan has to offer tourists, whether from a cultural, natural or archaeological point of view. Amman the capital, a trip to the Dead Sea, the countless archaeological sites and museums. But if there are two places not to be missed, there is no doubt that Petra and the Wadi Rum desert come out on top. Both are world-famous UNESCO World Heritage sites.

Starting with Petra, Jordan's major tourist attraction, this incredible Nabatean city was founded nearly three millennia ago. Petra's most famous monument is Al Khazneh (the treasure), which is steeped in history and the arrival at the exit of the Siq (canyon access to the city of Petra hidden in the mountains), where this giant sculpture appears in the rock. It will provide a rare emotion, engraved forever. The city is not limited to this building, and it's huge, requiring at least one day to visit it all.

Further south lies the desert of Wadi Rum. If the name doesn't ring a bell, you've certainly seen images of it in many films such as Indiana Jones, Lawrence of Arabia, The Martian, Star Wars, and even the recent Dune were filmed here! There are canyons, arches, cliffs and mass stretches of sand as far as the eye can see. And breathtaking sunsets. It is also a wonderful place to watch the sky at night without any light pollution. This is a place of very rare beauty not found anywhere else.

Alone, as a couple, or with the family, Jordan is a destination that is both warm and truly exotic, combining the pleasure of diving with the discovery of a multi-millennial culture.

ANTHONY LEYDET

www.zesea.com

[@anthonyleydet_uw_photography](https://www.instagram.com/anthonyleydet_uw_photography)



BACK TO INDONESIA

THE UNDERWATER WONDERS OF BANGKA, LEMBEH & TULAMBEN

FEATURE **GORDON T. SMITH**

The Indonesian diving industry has had a rough two years due to the impact of Covid, hopefully they are now on a recovery phase and life can return to normal. My trip there was wonderful, and the people fantastic.

COVER PHOTO: *Doto ussi*





TOP ROW: Porcelain Crab, *Neopetrolisthes maculatus*; Nudibranch, *Coryphellina flamma*.

BOTTOM ROW: Fire Dartfish, *Nemateleotris magnifica*; Anemone Shrimp, *Ancylomenes* sp.; Pair of *Mexichromis multituberculata* nudibranchs with eggs

Back in January 2022, the World was starting to open up for travel, and it looked like Bali was going to be ahead of most southeast Asian destinations.

Some plans started to evolve with some of my friends in the US and Australia to meet up in Bali and dive at Tulumben. However, there were no confirmed dates on the opening, flights to and from Dubai were still not direct, visas were still not available on arrival, some form of quarantine was still in place, etc, etc.

One of my US friends had booked trips in 2020 to a resort in Lembah (NAD) as well as a land based dive resort at Rajah Ampat, and she was determined to somehow manage a trip there as she also had a lot of accumulated leave to take (or lose!). I also found out that two islands, Siladen and Bangka, in North Sulawesi had been declared quarantine zones, which made choosing an alternative route a bit of a no brainer, who could pass up quarantining on an island with great diving on their doorstep!

There was still no Visa on Arrival (VOA) at the time of planning (January) but a business visa

(B211A) could be obtained if you had the right credentials including vaccination certificates. Finding flights was also not straightforward as there were no daily flights to Manado (MDC) in North Sulawesi. Singapore Airlines' budget carrier, Scoot, is operating twice weekly though on Wednesdays and Fridays. It appears that Silk Air no longer exists, which I had used in the past.

Besides the usual requirement for Covid-19 PCR testing that I'm sure we're all used to now after the past two years, an App for entry and use in Indonesia was also required. The App is called "PeduliLindungi" a bit of a mouthful, and to be honest completely useless at the end of the day, as during the whole of my trip I was never asked to show it, and despite uploading my vaccinations I was still receiving feedback that I was not vaccinated and unable to travel. Fortunately I had printed off several copies of my vaccine certificate from the Al Hosn App (UAE). This may be the electronic age, but you still can't beat paper copies!

My plans had now changed with an arrival into Manado, Sulawesi instead of Denpasar, Bali, and

my best route appeared to be with Singapore Airlines (SIA) partnering with Scoot to Manado on one ticket, which was very economical.

The only possible hitch with this itinerary, was the connection from Dubai, which only had a one hour and 55 minute layover in Singapore. Therefore I opted to leave a day earlier and have a 24 hour stop in Singapore resulting in an additional PCR test to comply with the entry to Indonesia. Better than risking my dive gear not making the connection.

Bangka Island dive resort run by Murex Divers was chosen as our quarantine zone as it has a decent house reef. However by the time I actually travelled (11th April) all quarantine had been lifted in Indonesia and VOA was now available.

As my final travel dates approached, I managed to have my fifth vaccine (third Pfizer), and then a few days later my first of two PCR tests allowing me to travel to Singapore and subsequently Manado, Indonesia. With the 24 hour stop in Singapore I needed that second PCR test to allow me to fly again as I had a



TOP ROW: Nudibranch, *Coryphellina exoptata*; Soft Coral Porcelain Crab, *Lissoporcellana nakasonei*.

BOTTOM ROW: Bubble Coral Shrimp, *Vir philippinensis*; Soft Coral Ghost Goby, *Pleurosicya boldinghi*; Pygmy Seahorse, *Hippocampus bargibanti*

break in my schedule and not on a continuous travel plan to Manado, which required a PCR test 48 hours pre-arrival. This was far easier to do in Dubai than in Singapore.

Another point to note is that Singapore now use an electronic landing card, which needs to be completed before immigration.

On the Wednesday morning I was up at 05:00 and off to the airport, where I met my friend Jen, who had just flown in from San Francisco on SIA. Our flight to MDC was fairly good as the plane was not full, and we managed to find seats together after the plane was airborne. The meal on the flight was rather poor; a point here is to eat well before the flight and bring your own snacks for this four hour flight.

On arrival at MDC we had to go through a medical control, which took some time, and nobody was asked to show anything on the PeduliLindungi App, all they wanted to see were paper copies of PCR and vaccine certificates! A point here was that my AI Hosn App from UAE was perfectly acceptable as I didn't have time to print my last PCR test.

The minivan from Murex was also waiting for us when we exited the airport terminal, and we had a two hour drive to where we had to take the boat to Bangka. The crossing also took about 30-40 minutes due to the weather conditions. The crossing was rough, but our luggage was covered by a tarpaulin to protect it from waves and spray. Eventually we reached Bangka and were assigned our accommodation up the hill from the standard accommodation that my daughter had used back in 2015 when we did the Murex "Passport to Paradise" trip.

The new bungalows are very much an improvement with sufficient space for dealing with photographic gear, as well as spacious toilet facilities, sometimes with local guests.

Unfortunately the WiFi doesn't extend beyond the dining area. I had thought of obtaining a local sim card for data but this unfortunately did not work in my phone, plus it has to be registered with an Indonesian ID!

Surprisingly some of the Murex staff actually recognised me as the guides for Murex work at all three of the resorts, including Lembeh. I

hadn't been there since 2015!

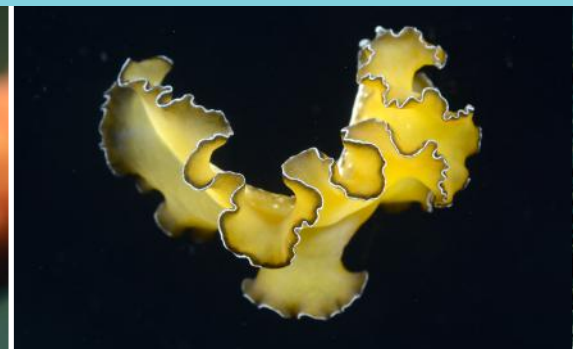
The food and accommodation was great during our stay, plus they have decent coffee too. My favourite though was the Gado Gado, which I ate almost every day.

There were very few people staying here. A Swiss couple and five Americans, plus ourselves. After a few days we had the resort and a boat all to ourselves.

New facilities are being built and many improvements are being made. It's great to see Danny, who runs Murex, investing for the future as it must have seemed bleak at times during the past two years.

It was also a bit of a shock for me to be back in >30m visibility and warm water again (29/30°C). Unfortunately my ear began to hurt a bit after a couple of days of diving and I sat out two days in order not to aggravate them.

Eight days after we arrived in Bangka, we transferred to NAD at Lembeh (via boat/var/boat) and we were the first people to arrive



TOP ROW: Zanzibar Whip Coral Shrimp, *Dasycais zanzibarica*; Polyclad Flatworm, *Pseudobiceros flowersi*; Roughsnout Ghost Pipefish, *Solenostomus paegnius*.
BOTTOM ROW: Murex Bangka House Reef; New accommodation Murex resort, Bangka; Lunch at NAD Resort, Lembah (spot Gordon in his EDA T-shirt).

there since they opened post Covid along with an American couple, Krug and Mary Ellen, who had just arrived from a Liveaboard and were being reunited with their luggage that didn't make the transfer from their US flight to Singapore through to Manado! This was a scenario that I had feared and the main reason why I stayed overnight in Singapore. Although their luggage arrived on the next flight to Manado, it was two days later; they were now on a boat heading east of Sulawesi with no way to get their dive gear etc.

The NAD staff that we interacted with are excellent (Manager: Rustam, as well as Opit who took care of any issues, served the food along with Missy). They had a three hour laundry service (I was running out of clean t-shirts), which was probably because of lack of anything else to do due to the very few guests. I asked for green tea as there was none, and the next day they not only had some next to the coffee machine but on the boat too, now that's service.

Our dive guide was a good spotter; however, initially he tended not to be as communicative once he vaguely pointed to something underwater, and most of the time didn't make a sign to what he was pointing at and I had to frequently ask, "What am I looking at?"

I was also having some issues with my manual focus ring slipping and twice removed it to use autofocus with mixed results. Many shots did not have the eye of the fish in focus or the rhinophores of the nudie in focus.

Again wonderful visibility in the straits, but warmer than any of my previous visits. Generally it had been 26°C and I had always wished to have brought a 5mm wetsuit, which I now had with me and the water temperature was 30°C!

During this part of the trip we had planned to do a "Black Water Dive" which turned out to be an amazing experience, and I personally plan to do more in the future.

What's a Black Water Dive? Basically a bunch of lights are attached to a weighted line hanging from a buoy that is left to drift, and is followed by the dive boat. The lights attract critters, and you photograph them.

Sounds easy!

The advice I was given by our guide was to use autofocus with an aperture of f12, in the end I was using f8. There was some amazing stuff to be seen, but the autofocus just wouldn't lock on to them, especially the large transparent

jelly things, but I did get a few keepers.

The last dive that we did in Lembah was a night dive and that was action packed. This was a really incredible dive as every octopus appeared to be out having a party, as well as several flamboyant cuttlefish.

Overall, NAD are as good as Murex, but I personally prefer Murex. While the food was good at NAD, there wasn't the same choice. Accommodation was better at Murex too, not that NAD was bad in any way though. The boats are almost identical and the crew are great at picking up the divers, very experienced at doing what they do, and extremely helpful.

Then it was time to leave, which was a Monday possibly (I was getting really confused by now and in full holiday mode). We had a flight to catch on the Tuesday, myself to Denpasar in Bali, and Jen to Sorong for her Raja Ampat side of the trip. This meant breaking down the camera gear and repacking it as well as drying off all the wet stuff.

On the Monday afternoon we had transport to the Novotel at Manado. Our respective flights were at 07:00 on Tuesday morning. This also gave us time to dry off anything that was still damp and repack at the hotel.



TOP ROW: Coconut Octopus, *Amphioctopus marginatus*; Unidentified Octopus; Mating wonderpus, *Wunderpus photogenicus*.
BOTTOM ROW: Accommodation at NAD, Lembeh; Walk with the dogs next to Mt. Agung, Tulamben, Bali; Villa Alba Resort, Tulamben, Bali.

The new "highway" to Manado is also now complete and it only took an hour from Bitung to the Novotel near Manado airport.

We were up early and at the airport by 05:00. Despite my best efforts to ensure I had no tools in my hand baggage, the X-ray at security found an allen key. That's three allen keys that I've lost to Indonesian airport security. I also had my photo taken this time too! Perhaps I'm now in an Indonesian file of a consistent attempted allen key smuggler.

Jen and I wished each other farewell as both our flights were boarding almost simultaneously, and I started my four hour journey to Denpasar on Lion Air via Makassar in South Sulawesi.

I arrived at Denpasar rather hungry. The driver from Villa Alba was there to meet me and I popped into a small supermarket to buy edible stuff for the two and a half hour drive to Tulumben.

The dive resort was not busy. There were six divers (two Belgians plus, a German guy and his Indonesian girlfriend), who were leaving the next day, as well as two Singaporean girls leaving a day later. After they left, I was the only diver at the resort for three days.

I had been assigned to Big Wayan as my guide. Small Wayan was in charge of the Singaporean girls.

I like to do a check out dive on the house reef if possible wherever I go just to make sure all my gear is working, and I don't have to waste time and miss dives or abort dives later. Everything worked flawlessly and icing on the cake was a pygmy seahorse on the house reef. I did another two dives afterwards, one at Kwanji for some donut nudis, and another back at the house reef to get more shots of the pygmy seahorse.

The following day, small Wayan mentioned that there was a rumour of a Rhinopia at one dive site, and the plan was to go there. When we arrived at the dive site in question, Sidem, it was busy, probably all the divers in Tulumben were there – about 20. The dive gear was then transported by porters around the beached outrigger fishing boats to the entry point, and we followed carrying only our fins and camera.

Sure enough there was a Rhinopia and a queue underwater to photograph it, where I spent 11 minutes waiting for one guy to take his shots, and two minutes for myself as one of the Singaporean girls was also diving with us, and I felt that five or six shots is sufficient

especially with other people waiting. However I have noticed that other people do not observe this etiquette.

In fact, I felt a bit rushed and given the depth at 32m, we had limited time. That aside, we did have other subjects to photograph. The next day we returned to Sidem and the place was empty of divers... and Rhinopias!

My guess is, that with so many photographers around, it sought out a more peaceful resting place.

The remaining dives were blissful as it was just me and the guide and I had changed my usual set up with the camera housing to use the BackScatter Mini-Strobes due to some electronic issues that I was having with my Sea&Sea strobes. Despite the lack of larger nudibranchs that I've always seen at Lembeh and Tulumben, the highlight of this part of the trip was definitely a pair of mating Wonderpus octopus.

The Indonesian diving industry has had a rough two years due to the impact of Covid, but hopefully they are now on a recovery phase and life can return to normal for everyone. My trip there was wonderful, and the people were fantastic.





[PADI'S TOP RECOMMENDATIONS]

ECO-RESORTS & DESTINATIONS THAT SUPPORT CONSERVATION

FEATURE **PADI**

Want to make a difference on your next holiday? Choose a PADI Dive Resort that champions sustainable practices, cultivates environmental awareness, empowers local communities and protects marine life.

COVER PHOTO: Tahiti. Photo by Jack Fishman.



Revillagigedo Islands and Isla Mujeres. Photo by Rodrigo Friscione.

PLANNING DIVE TRIPS THROUGH ECO-RESORTS

DID YOU KNOW:

- 61% of travellers state that the pandemic has made them want to travel more sustainably in the future (Booking.com, 2021).
- 82% people said sustainability was more on their minds than before the pandemic (Google Survey 2021).
- There was a 70% rise in the number of people searching for sustainable travel options in 2021 (Google Survey 2021).

PADI'S TOP REGENERATIVE TOURISM DESTINATIONS TO TRAVEL TO IN 2022

1. Tahiti
2. Fiji
3. New Zealand
4. Costa Rica
5. Mexico
6. Hawaii
7. Croatia
8. Ecuador

BEST ECO-RESORTS WHERE YOUR STAY MAKES A WORLD OF DIFFERENCE

Want to make a difference on your next holiday? Choose a PADI Dive Resort that champions sustainable practices, cultivates environmental awareness, empowers local communities and protects marine life.

Here are PADI's top picks for the best eco-resorts to visit this year, regardless of whether or not you dive!

1. MERIDIAN ADVENTURES RAJA AMPAT, INDONESIA

Raja Ampat is host to the largest marine diversity on the entire planet. From mantas and pygmy seahorses to over 100 different varieties of coral, it is an eco haven that words or photos simply can not do justice. Offering an off the grid accommodation is Meridian Adventures, whose modest rooms provide luxury amenities while still being in the heart of the local community. Best of all, you can customise your package with no set arrival date or minimum nights for your stay.

2. SANGAT ISLAND DIVE RESORT PALAWAN, PHILIPPINES

This eco-conscious resort is set amongst lush palm trees and borders over 300 metres of white sandy beach. The entire Sangat Island Dive Resort operates through solar power and provides a plastic-free environment to protect that natural environment it is within. Since 1994 they have been giving back to the local community by training and hiring locals, championing school programmes and giving guests the chance to visit and give back as well.

3. MATAVA ECO RESORT KADAVU, FIJI

This resort was Fiji's first-ever recipient of the PADI Green Star Award, which identifies dive businesses that care about the environment and are acting to protect it. Matava Eco Resort offers guests million-dollar views of the South Pacific Ocean, you will drift off to sleep

with views of endless blue, and the sounds of crashing waves. All meals are made from local produce grown in their organic farm and served al fresco. A must-do while there is visiting Manta Reef for a once in a lifetime encounter with these dancing giants.

4. FINCH BAY HOTEL GALÁPAGOS, ECUADOR

Dubbed as one of National Geographic's Unique Lodges of the World, Finch Bay Hotel offers those with a wanderlust soul, a luxurious home base in between adventures throughout the world-famous Galápagos National Park. Protected from the outside world, there is an abundance of wildlife here both above and below the surface. Swim with hammerheads, marine iguanas, penguins and seals and learn how you can play a role in helping to preserve this local ecosystem that is truly a wonder of the world.

5. WATER AND WIND AZORES, PORTUGAL

Truly be one with the ocean on this custom built luxury catamaran. Water and Wind was built to offer a boutique and eco-friendly holiday for those keen to adventure around the Azores – a true gem of Portugal. Offering a true sailing experience reliant on just solar power and wind, you can even improve your own sailing skills while aboard. Expect to see a plethora of wildlife while out at sea, including pelagics, nudibranchs and hammerheads, along with stunning volcanic landscapes that remain untouched.



The Bahamas. Photo by PADI.

DESTINATIONS THAT SUPPORT CONSERVATION

PADI has partnered with The Ocean Foundation to support The SeaGrass Grow Programme, empowering you to mitigate the carbon from your next holiday. You can donate to the programme every time you book a trip with PADI Travel, or simply make a donation to Seagrass to offset your carbon usage.

By travelling to these local destinations, you are supporting their conservation.

REVILLAGIGEDO ISLANDS, MEXICO

If you dream of magical manta encounters and being surrounded by schools of hammerheads while being buzzed by an orca, then the Revillagigedo Islands are perfect for you. Affectionately known as the Galápagos of Mexico, it is a diver's paradise, and a UNESCO World Heritage site. Drop-in on Roca Partida and often you'll have to choose between swimming with a school of giant tuna, being surrounded by Galápagos and Silky sharks, or meeting a whale shark. You can literally choose your own adventure.

Sail to the most well-known of the island chain, Socorro, on a PADI Liveaboard this spring for a chance to witness the pelagic lover's paradise. As the seasons transition from winter to spring, lucky explorers get the chance to have intimate encounters with manta rays, bottlenose dolphins who seek out divers for some playful interactions and games they've created entirely unique to the pod, and even

the occasional humpback whale off the coast of Mexico. Getting to the remote Socorro Island is easier than you may think. Simply hop on a direct flight to Cabo, Mexico and then board your PADI Liveaboard.

MAKING A POSITIVE IMPACT:

Scientists have discovered through tagging – many of the same animals found in these waters migrate between Galápagos and Coco Island as well – moving from seamount to seamount. This in part helped drive protection for the threatened pelagic species. In 2017, 148,087 square kilometres (57,177 square miles) was declared a marine park – Mexico's largest fully protected marine reserve, free from fishing and other extractive activities. Diving fees are a considerable source of income for the protection of the park.

SOUTH AFRICA

If you are looking for the ultimate land and sea safari, then South Africa is the perfect location for you. Consider summer – for great weather as well as sea conditions in both Cape Town and Durban.

Head south to Cape Town to snorkel – or dive – with the playful fur seals of Hout Bay hiding amid the kelp, or head out on a cage diving expedition to meet their arch enemy... the great white shark. From sunrise breaches, to sunset spy hops, you'll never forget your encounter with the "white pointers" in the shark capital of the world. And while the great whites get all the attention, you'll be absolutely

enthralled with the over 100 other species – many of which can only be found in South African waters. We especially love the antics of the pyjama shy sharks in the gorgeous bull kelp forests.

The south coast of Durban offers incredible diving that is a tad bit more tropical (by at least 25 degrees) than the cold waters of Cape Town. Visit Aliwal Shoal to swim with their resident tiger, bull, oceanic blacktip and dusky sharks at some of the most epic shark dives in the world. Not a diver? No problem! You can snorkel with these sharks as well. The Shoal offers amazing diving and a cast of characters from friendly leatherback turtles to massive brindle bass. Further north is Sodwana, a largely untouched divers paradise where beach launches (and landings) are as exciting as the residents. Pods of dolphins, whale sharks, large schools of fish, manta rays and even the occasional white shark can be found on the many dive sites in the area. Both are marine reserves (part of South Africa's 42 reserves) ensuring you are supporting the local protection of these amazing spots.

MAKING A POSITIVE IMPACT:

South Africa was the first country to protect Great White Sharks – and cage diving contributes more than 74 million rand to the economy – truly making sharks more valuable alive, than dead. Terrestrially, though not as well-known as Kruger, KwaZulu Natal offers some fantastic safari adventures and can easily be part of a trip to Aliwal Shoal or Sodwana. We



Revillagigedo Islands and Isla Muejers. Photo by Rodrigo Friscione.

particularly love Manyoni Private Game Reserve, also known as Zululand's Rhino Reserve. They are a leader in rhino species conservation. Not only do you have the chance to encounter black and white rhinos, you can also participate in and support rhino conservation. Your South Africa spring diving experience can be booked with 36 PADI Dive Centres.

FIJI

Those looking for great visibility and exciting marine animal action can head to the warmer waters of Fiji at any time of the year!

Of the 333 islands to choose from, Beqa Lagoon off the coast of Viti Levu in Fiji offers a shark haven where in just one dive you can see bull sharks, whitetip reef sharks, blacktip reef sharks, nurse sharks, and even tiger sharks! And making this event even more magical is that the massive shark gatherings will take place amongst the vibrant hues of healthy coral reefs.

Fiji is known for its massive amount of marine species as well as being the "soft coral" capital of the world. From pristine reefs first explored by Jacques Cousteau, to areas still remaining to be discovered, you'll be delighted by the incredible colours of the swaying coral and

visits from blue ribbon eels, manta rays, schools of bumphead parrotfish, and even pilot whales.

MAKING A POSITIVE IMPACT:

Fiji is once again open to international travellers and offers the chance to witness one of the world's prime examples of the soft-coral ecosystem, known as Rainbow Reef. It is not just colourful reefs that make Fiji such a special place to explore. A recent study in Fiji found that bull sharks form friendships with each other! Researchers studied data collected over 3,000 shark dives in Fiji's Shark Reef Marine Reserve (SRMR), one of the world's most sought-after diving destinations. SRMR is located in the Beqa Channel, off the southern coast of Viti Levu, and is a striking example of collaboration for conservation.

The shark is revered by local Fijians and legend has it that Dakuwaqa, the ancient shark god, provides protection for the people when at sea. So not only will you be exploring Fiji's underwater world with your dive buddy, but you will likely encounter a pair of bull shark BFFs on your dives too!

THE BAHAMAS

Head to the Caribbean, where the Bahamas play hosts to some of the most spectacular

mega-fauna in the world. We love the trifecta: Bimini, Grand Bahamas, and Tiger Beach.

Plan a trip to Bimini to catch up with bull sharks, hammerhead sharks, friendly dolphin pods, and graceful schools of eagle rays. You'll feel like you stepped back in time to an island still not heavily commercially developed and traversed by golf carts. Bimini can be explored by divers and snorkellers alike. It is absolutely stunning above and below the surface. Head to nearby Honeymoon Beach to swim with the local group of rays and don't miss some of the wrecks sunk as artificial reefs which are always hosts to large schools of colourful fish.

Grand Bahamas offers a larger island vibe with incredible shark dives, gorgeous coral structures, turtles by the dozens and plenty of reef fish. It also features a freshwater cavern and cave system that is still being explored.

From Bimini or Grand Bahamas, you can head to the most spectacular tiger shark gatherings in the world. Tiger Beach offers the chance to take part in some of the greatest shark diving in the world. You'll get up-close encounters with not only tiger sharks, but lemon sharks, the occasional hammerhead, and plenty of whitetip reef sharks in the crystal-clear azure



Galápagos. Photo by Neil Andrea.

waters that only an aquarium can top in terms of visibility.

MAKING A POSITIVE IMPACT:

The Bahamas is a model in shark conservation, with incredible research coming out of the home of “shark week”. Such as the fact discovered at the Shark Lab that sharks form lifelong bonds and have complex social structures – they are literally the opposite of mindless predators! In addition, the Bahamas created the first shark sanctuary in the Atlantic Ocean in 2011, with over 40 shark species now residing in the 630,000km protected area. This has ultimately helped shark tourism in the Bahamas contribute \$100 million to the economy each year, and has also kept their conch and lobster industries flourishing thanks to a healthy ecosystem full of apex predators. Why not meet some toothy new friends in the shark diving capital of the world while contributing your tourism dollars to a country that is a leader in marine conservation? Your Bahamas diving experience can be booked with 19 PADI Dive Centres.

GALÁPAGOS

The Galápagos Islands, a naturalist's dream destination, are found over 600 miles (1,000 kilometres) off the west coast of Ecuador.

Despite easy access by plane, the Galápagos are a wild wonderland, full of endemic species both above and below the water. Marine iguanas, Galápagos penguins, sea lions and Galápagos sharks along with schooling hammerheads, whale sharks, manta rays and mola mola are the delights to scuba divers.

While diving in the Galápagos off the coast of Ecuador is fantastic all year long, May offers a unique opportunity to truly see it all. This is because May brings calmer, warmer and more clear waters to this world-famous dive site. As a result, the Galápagos – which is one of the most protected places on Earth – is teeming with large schools of hammerhead sharks and manta rays, in addition to sea horses, turtles, penguins, sea lions and marine iguanas.

Dive sites in the Galápagos tend to be volcanic in nature with a few corals scattered here and there. Channels around the islands boast heavy currents which work like pelagic highways. Because the best dive sites in the Galápagos are distant (as is the case of Wolf and the Darwin Islands) or spread out, joining a liveaboard is the best way to fully experience the archipelago.

There is literally no place more spectacular

underwater than the remote Darwin and Wolf islands in the Galápagos which are only reachable by boat. On the far outer reaches of the archipelago, Darwin Island and its famous dive site, Darwin's Arch (sadly the arch is now collapsed into the ocean), are the highlight of any liveaboard tour in the Galápagos. Manta rays, sea turtles, dolphins, eagle rays and the occasional whale shark wow divers with their presence. The real showstopper are the huge number of sharks brought in by the strong current. You're likely see schools of hammerheads, silky sharks, blacktip sharks and Galápagos sharks.

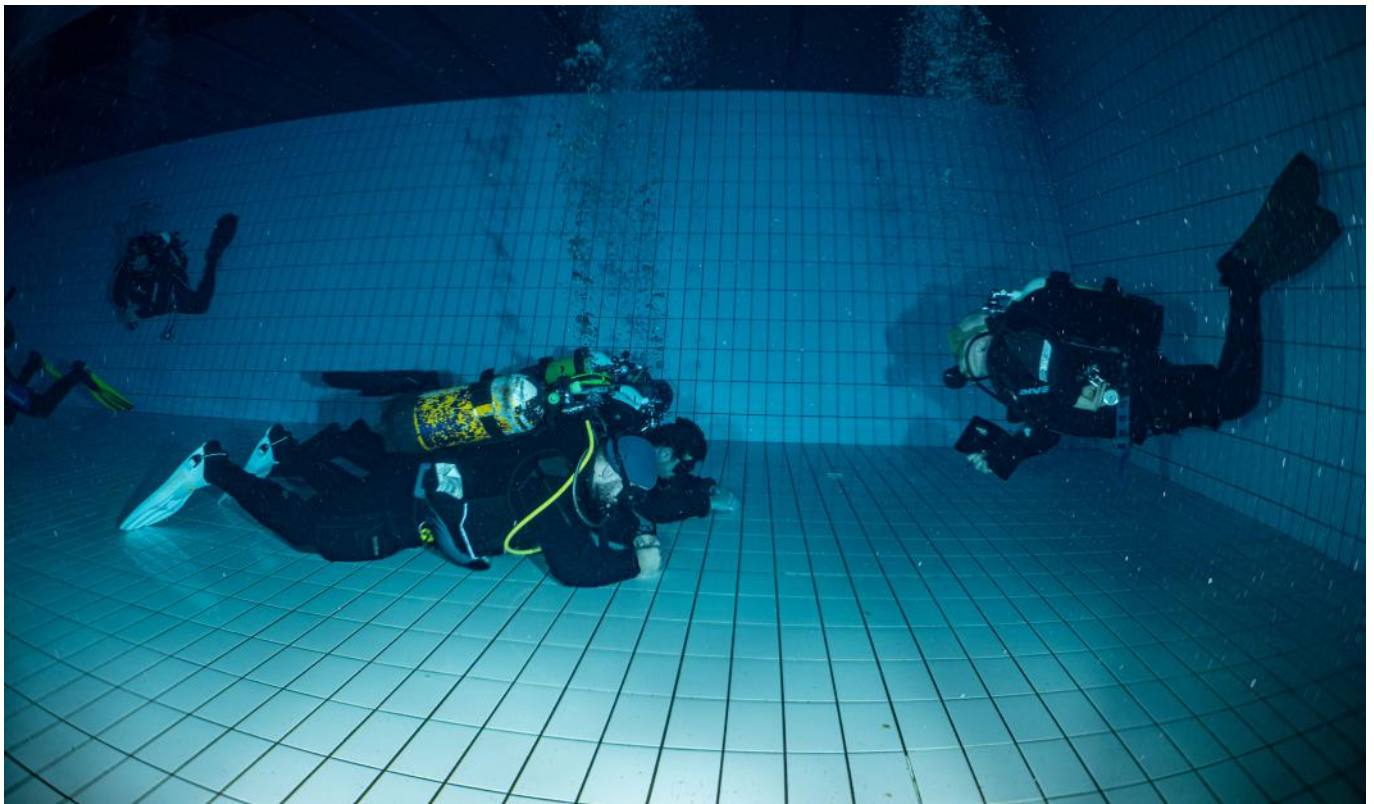
MAKING A POSITIVE IMPACT:

The Ecuadorian government has just established over 60,000+ kilometres of new marine reserves in the Galápagos. Plus, four Latin American countries have come together to ban all industrial fishing between Mapelo, Galápagos and Cocos – providing an additional 500,000 square kilometres of protected area for the hammerhead sharks, turtles, tuna and manta rays that frequent these waters. A trip here in 2022 not only supports the country's eco-tourism efforts, but further supports expanding the protection of this world heritage site. Your Galápagos diving experience can be booked with 5 PADI Dive Centres.

THE HEART AND DIVING

AN ALTERNATIVE WAY TO MONITOR A DIVER'S HEART FUNCTIONING UNDERWATER

FEATURE **GIUSEPPE DI TURSI**



Underwater phases of the measurement protocol. Divers were required to stay still to avoid undesired artefacts through the collected signals. Photo by Antonio Angelo Calasso (Altamarea Snc).

Statistics show that about one-third of all diving accidents are due to an acute cardiac event, that is why monitoring heart activity more closely in relation to diving activities, is of crucial importance.

Cardiac health is mainly affected by aging. As the years advance, all the structures of the heart become stiffer. Left ventricle muscles get thicker, its volume declines, and the heart may increase slightly in size. Consequently, the heart may both fill and empty more slowly, thus injecting less blood into circulation. The rise of heart rate and cardiac output in response to physical activity is not as effective and maximum heart rate is diminished.

Cardiovascular health may be negatively influenced by undesired reactions following the body's adaptation to immersion too. Physiologically speaking, immersion in water near the temperature of the human body results in blood shift to the chest cavity together with narrowing of peripheral vessels. The additional blood volume is responsible for enlarging all four heart chambers, increasing the filling pressure on the right side of the heart, thus resulting in more than a 30-percent rise in cardiac output. Vasoconstriction, so there is more flow resistance, is accountable for a slight growth in overall blood pressure. To

maintain homeostasis, heart rate and cardiac output decline, but it must exert itself more to ensure adequate flow throughout the body. However, these mechanisms may trigger adverse responses, such as arrhythmias, that may be life-threatening for individuals with previously undiagnosed diseases.

Therefore, the need to track physiological parameters in diving has arisen. Extensive research has been performed on what happens before and after the dive. However, the latest studies have shown that some variables experience significant changes when observed during the dive, even though they seem to remain stable pre and post-diving, such variations can be identified by monitoring the heart.

That is why the adoption of telemonitoring solutions is a hot topic in the scuba diving field, offering the possibility to gain additional insights of the heart functioning during a dive.

Within this context, at Politecnico di Milano in Italy, an explorative study aiming at assessing the feasibility of characterising the cardiac activity on subjects during scuba dives – more specifically its mechanical counterpart – was set up by the research group of Professor Caiani, in the circumstances of a research

project (Kinosomno) funded by the Italian Space Agency. These experiments were possible by performing the acquisitions using the EcgMove 4 device (movisens, GmbH) worn under a drysuit; such a device includes a single channel ECG, and a 3-axis accelerometer and gyroscope, which are able to measure simultaneously the cardiac electrical activity and the chest's vibrations provoked by the cardiac mechanical activity. As the muscle mass of the atria is small compared with that of the ventricles, the vibrations registered mainly reflect the ventricular activity, in particular relevant to the opening and closing of the aortic and mitral valves.

The resulting signal is known as the seismocardiogram (SCG), which may powerfully complement methods of detecting heart electrical activity (such as electrocardiography). On the other hand, the complexity of the signal makes it more challenging to analyse it. However, the SCG contains the frequency components of both ECG and respiration, making it highly potential for the simultaneous monitoring of heart and respiratory rates with relatively less complicated measuring procedures. Additionally, due to the technology advancement of the microelectromechanical system (MEMS), the signal can be acquired at a much lower cost than before.



A cycle of ECG (top) and SCG (bottom) signals and the sequence of cardiac events. References: Akhbardeh, Alireza et al. "Comparative analysis of three different modalities for characterization of the seismocardiogram." 2009 Annual International Conference of the IEEE Engineering in Medicine and Biology Society (2009): 2899-2903.

The baseline and post-immersion phase of the measurement protocol.

To our knowledge, this is the first study of its kind focused on assessing the feasibility to monitor the SCG during a diving session. The measurements were performed in an indoor swimming pool on 25 volunteers recruited among experienced divers, and then downloaded on a PC via a simple USB connection. The protocol consisted of:

1. 10 minutes outside the swimming pool in supine position to define a baseline
2. 10 minutes in a horizontal trim at 2 metres depth
3. 10 minutes in a horizontal trim at 5 metres depth
4. 10 minutes outside the swimming pool in supine position post-immersion

The Divers were breathing air and constantly supervised throughout the entire experiment. The campaign has just been concluded, and the data is now being processed.

The preliminary findings on heart and respiratory rate variability are in line with what was expected, that there is an increase in parasympathetic drive, so there is a reduction of these rates during scuba diving.

The next step is the detection of fiducial points on the SCG signal which will help to characterise the heart mechanics underwater. A statistic evaluation extended over all the divers will eventually provide an overview of the existing trends. At the moment, we are focusing on quantifying the amplitudes and timings of IVC (isovolumetric contraction), AO (aortic valve opening) and AC (aortic valve closure), but also derived parameters such as the slope IVC-AO, also called the acceleration rate, is a

possible index of heart muscle contractility.

The main goal of the investigation stands in evaluating and quantifying the spontaneous adaptation of myocardial mechanics within the underwater environment, comparing it to what is currently known, and assessing its robustness for monitoring divers in the future.

However, clinically speaking, given its more detailed information, the SCG has already helped in the classification of several types of cardiovascular diseases including aortic stenosis, coronary artery disease, myocardial infarction, atrial fibrillation and heart failure, as well as monitoring cardiac deconditioning in bedridden experiments in the context of space physiology studies.

Diving exposes the heart to conditions where underlying pathologies may be exacerbated. For instance, the physiologic changes, as well as the exercise and stress, during a dive could increase the heart's need of oxygen. In case of coronary artery disease, depriving the heart of oxygen could lead to abnormal rhythms and/or myocardial infarction. So, the SCG might become handy to anticipate the detection of possible complications due to such diseases which are incompatible with diving. This is just one example of how research in diving, and extreme environments in general does not have an end in itself. Looking at how the body reacts to an external stressor, it influences the way we understand pathophysiology and the key point stands then in promoting this awareness throughout the diving community.

The future is just around the corner!



The movisens EcgMove 4 device used for data collection applied on a volunteer diver's chest.

ACKNOWLEDGEMENTS

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Secondly, we would also like to thank Altamarea Snc and IDRA Diving Club for their availability to provide us with the necessary equipment and logistics.

The completion of this project would not have been possible without all the volunteer divers to whom we send our deepest gratitude.

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IS THERE A DIVER MED TECH IN THE HOUSE? A REVIEW OF DAN EUROPE'S DMT COURSE

FEATURE **ANDY TORBET** – DAN EUROPE MEMBER AND AMBASSADOR



On the many expeditions, operations, and projects I've been part of whether military, exploratory or scientific there are always a few ubiquitous and essential skills to have within your team. A medic, and ideally one familiar with the types of injuries and illnesses likely to occur in the locations and pursuits you are undertaking, is a must have.

First Aid courses are well worth undertaking. They give us the confidence to deal with situations, allow us to help those in need and give others the confidence and comfort that someone can render assistance should something go wrong. However, a basic course may not furnish us with the skills to deal with more traumatic, complicated or specialist problems, especially if we are farther from the normal support provided by the emergency services, e.g. offshore, in a cave system or in a remote part of the world.

An advanced medical technician's course, like the medic courses I have done as part of my role in both mountain and cave rescue teams, goes into greater depth and provides more advanced skills. These skills can save lives where those with only first aid training may fall short. However, some of the injuries and illnesses we are potentially exposed to as divers are unlike any other forms of medical problem and therefore not covered on a standard course. Some problems, like jellyfish stings or burst eardrums are not unknown outside the diving world but are rare. But others, like decompression illness, will only present in a diver and therefore require a specialist type of medical technician – a Diver Medical Technician.

I attended the course run by DAN Europe Instructor and The Diver Medic founder Chantelle Newman. A course like this is normally run over ten days but now there is an option to train a significant proportion of the theory elements online before attending five days of hands-on learning. The online syllabus covers the full range of topics using slides, reading, audio and video material and can be completed at a student's

own pace and to fit in around that student's life. My work means I keep odd hours, days and weeks, and tend to have a busy schedule. It's unlikely I would have been able to ring-fence two full weeks to attend this course. However, completing the online work over the weeks leading up to a five day face-to-face group course was manageable.

Although, in a post-Covid-19 world, we have become more accepting of online and virtual learning. Some subjects need to be taught, practiced and examined 'in the flesh'. It is essential the second week is in-person and with other students to allow everyone to ask questions, discuss differing real-world experiences and alternative viewpoints in order to allow students to build up as broad and robust a picture as possible of potential scenarios, pit-falls and solutions.

There is also the chance to practice using diagnostic equipment on real people, run through realistic scenarios and practice practical treatment methods, some on fellow students and some on medical mannequins depending on safety. This hands-on time is essential as the course is not designed to provide a theoretical level of knowledge to pass a written exam but to produce people capable of helping others in the real world.

The course, both online and practical, covers those subjects included in a basic and advanced first aid course but also delves into measuring, recording, assessing, re-assessing and interpreting the signs and symptoms of your casualty in order to conclude what the best course of action may be. These techniques include the use of equipment to monitor and test blood glucose, heart rate, tissue oxygen saturation, blood pressure and urine. The information gained from these methods will allow you to diagnose and treat many more problems than someone who is only first aid trained. There is also instruction on more advanced techniques and the associated equipment like advanced airway management, wound dressing and splinting, dental problems, suturing (stitching), catheterisation and intravenous infusion.

Then there are those topics specific to divers. In reality I have found accidents around a diving trip tend to be less unusual, although not necessarily less serious, like lacerations, broken bones, dislocated joints, concussion, anaphylaxis, hypothermia, sun-stroke, heart attacks and more. I have seen more accidents happen on a boat than I have underwater. So these core medical skills are important. But unlike a standard medic, we as divers, have to be capable of dealing with these more common problems and those specific to diving.

I have already mentioned Decompression Illness, others could include damage to the ears, sinuses, lungs and eyes due to the pressure changes we experience, a higher risk of drowning, oxygen toxicity, carbon monoxide or dioxide poisoning. Many of these are unlikely to occur on dry land but can be relatively common in diving. The course is always being developed and updated and I've recently noticed subjects like in-water recompression and improvised medicine, which are useful subjects in remote locations. The updated course also includes

subjects such as children in diving, which reflects the growing number of younger people getting involved in the sport.

No emergency medical technician is meant to cure people. The purpose is to halt their decline, or even merely slow it down, sufficiently to get them to a hospital that has the number of professional specialists and equipment to stabilise them and begin the process of making them better. A first aid course is one that means an individual is able to provide basic skills to deal with simple issues so someone can be kept alive until the emergency services arrive. A course like the Diver Medical Technician provides the skills to deal with much more complicated and serious situations and provide support to a casualty for extended periods of time.

The additional assessment and treatment skills necessary for dealing with casualties of diving-specific hazards is also something essential when diving in remote parts of the world. And this remoteness need not be in an Amazonian Lake or deep in an Indonesian cave system but on a diving day boat or live-aboard that may still be many hours from professional help and involve a situation that a normal medic, untrained in hyperbaric medicine, would struggle with. It is not an exaggeration to say these skills make a decisive difference in a situation that would otherwise result in a fatality.

I first did a course like this in the British Forces, the Defence Diver Medical Technician, almost 20 years ago. Since then I have requalified every few years to maintain my certificates and my skills. It not only gives me the confidence to lend assistance where needed, it gives me the skills to ensure that assistance is actually useful. A life in diving, whether as a career or hobby, is a journey full of the accumulation of knowledge. But the knowledge gained on this course could save a life.

ABOUT THE DMT COURSE

The Diver Medical Technician course is designed for all those divers who are involved in Recreational, Technical, Scientific, Military, Police, Fire and Public Safety Diving, and divers working remotely. This course provides you with the skills necessary to deal with diving emergencies. Scuba divers face different situations compared to commercial divers working in highly dangerous situations, however the accident and mortality rate amongst recreational divers is higher, and their level of medical training lower.

The Diver Medical Technician course will not teach you how to dive, it will teach you how to save lives and assist in treating diving related injuries. It will teach you how to work under pressure and when to make that all important, life-saving decision.

Contents cover: incident and patient assessment, human anatomy, methods for monitoring vital signs, methods of caring for a casualty on site and during transportation, airway assessment and management with adjuncts, oxygen administration, CPR and AED, management of minor and catastrophic bleeding, suturing, poisoning, and much more.

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June 2022



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When you join a Reef Check EcoDiver training, you will learn about our local ecosystems and you will be able to participate in our regular survey dives which will help us to understand the threats our corals are facing by providing important data.

Upon completion of this course, you will be able to join the EDA Reef Check team and assist in our regular underwater surveys in the UAE, as well as other underwater surveys in the Indo-Pacific region. This 4-day course includes both classroom, fieldwork, and an exam.

EDA MOVIE SCREENING

DAVE NOT COMING BACK

Thursday 4th August 2022 | 92 mins | Deep Dive Dubai | Online Screening Option Available



Two high level scuba-divers and long-time friends, Don and Dave, broke a world record for depth in the Boesmansgat cave in South Africa. It would take them 15 minutes to reach the bottom, but 12 hours to surface. Having reached the bottom, against all odds, they find a body. They decide to come back and retrieve it.



EDA
جمعية الإمارات للغوص
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Co-Founder & Executive Director | Ibrahim Al Zu'bi
Email: projects@emiratesdiving.com

Project Manager | Ally Landes
Email: magazine@emiratesdiving.com, photo@emiratesdiving.com

Reef Check Trainer | Rania Shawki Mostafa
Email: reefcheck@emiratesdiving.com

Administration Assistant
Email: projects@emiratesdiving.com

MISSION STATEMENT

To conserve, protect and restore the UAE marine resources by understanding and promoting the marine environment and promote environmental diving.

LEGISLATION

Emirates Diving Association (EDA) was established by a Federal Decree, No. (23) for the year 1995 article No. (21) on 23/02/1995 and chose Dubai as its base. The Decree stipulates the following responsibilities for EDA.

- To legislate and regulate all diving activities in the UAE.
- Ensure environmentally respectful diving practices in all EDA members.
- Promote and support the diving industry within the UAE by coordinating the efforts of the diving community.
- Promote diving safety in the commercial and recreational diving fields through standardisation of practices.
- Promote and preserve historical aspects of diving within the gulf region and enhance environmental education to diving and non-diving communities through EDA activities.

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Emirates Diving Association
P.O. Box 33220
Dubai, UAE

Office Location: Jumeirah 1, Al Hudaiba Awards Buildings, Block B, 2nd Floor, Office #214

Tel: +971 4 393 9390
Fax: +971 4 393 9391
Email: projects@emiratesdiving.com
Website: www.emiratesdiving.com

Facebook: Emirates Diving Association
Instagram: eda_uae (Digital Online Gallery)
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DID YOU KNOW?

MARINE RESEARCH AND CONSERVATION FOUNDATION (MARECO)



VISION: A world where oceans and people thrive through restoration and conservation of at risk marine megafauna by collaboration with multiple stakeholders.

MISSION: To facilitate marine conservation interventions through collaborative work.

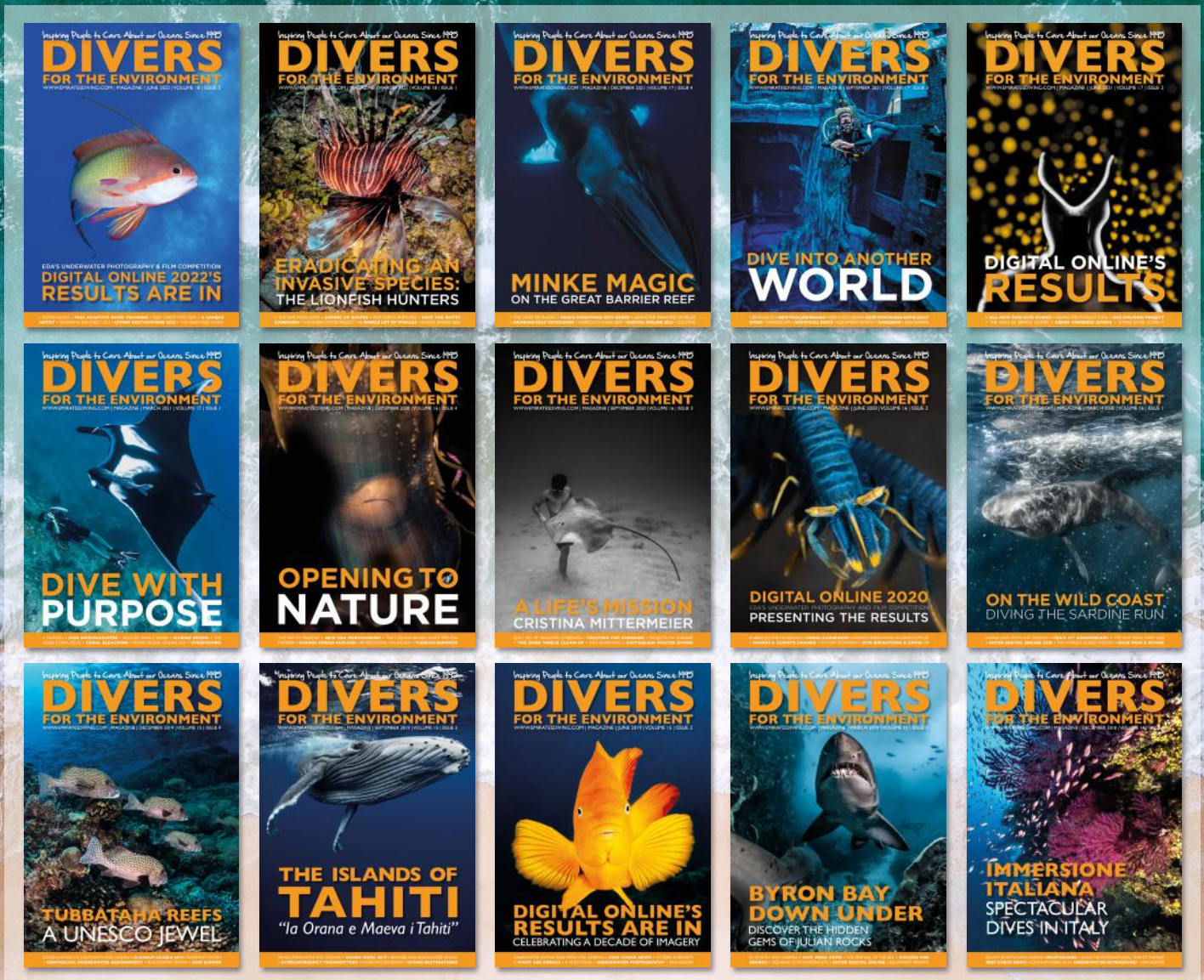
HOW WE DO THIS: Working with research groups, non-profits, communities, NGOs and governments to facilitate conservation and management of threatened marine megafauna species. This includes conducting research, supporting decision-making, and enabling conservation action. Our work is centred on charismatic marine species such as sharks and rays, that serve as umbrella species to the wider marine environment.

HISTORY: MARECO was born out of the Covid-19 pandemic. The world was brought to a halt, and in the conservation sector it became apparent how some systems failed. Conventional operations did not work anymore, and it was highlighted that when in need, people come together to create positive change if they are allowed to. In MARECO we envision an egalitarian world where people work together towards a common goal: thriving Oceans. We strive to bring people together from all walks of life. Only by effectively doing so can we succeed in what will be the biggest challenge of our age: saving planet Earth. Our expertise is centred on marine megafauna science and conservation. We believe umbrella species can successfully bring about positive change for ocean conservation and that's why we work with species such as whale sharks and rays.

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