EDA
جمعية الإمارات للغوص
Emirates Diving Association

DIVERS FOR THE ENVIRONMENT

SEPTEMBER 2009, VOLUME 5, ISSUE 3

HYPERBARIC CHAMBER
AVAILABLE FOR FREE FOR EDA MEMBERS

2nd MEDITERRANEAN FREEDIVING MEETING AND COMPETITION 2009:
GETTING DEEPER

WHALE SHARKS
MIGRATING THROUGH UAE WATERS

DIGITAL ONLINE PHOTO COMPETITION RESULTS

Take the plunge for International Cleanup Day

Photo courtesy of Greenpeace/Carè Mu[illegible] Photobank

Help make clean water a reality

Photo courtesy of Paula Dykes

19 September 2009

Register your cleanup event, collect data and support conservation.

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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. It is hoped that the magazine can become a platform for individuals to voice their opinion on marine and diving related issues. You are welcome to submit an article for the next issue of "Divers for the Environment" released in December 2009. Send all articles/comments to: magazine@emiratesdiving.com.

EDA COVER
PHOTO BY JONATHAN CLAYTON

Please recycle this magazine after you have read it.

EDITOR'S LETTER

RAMADAN KAREEM & EID MUBARAK

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Hope you all enjoyed your summer holidays and managed to do a lot of diving. It seems that we are having a Whale shark summer. Although I didn't manage to spot one myself this year, it made me think maybe a whale shark in the UAE is a myth, but a lot of dive centers and divers managed to spot them, take photos and even post videos on their facebook pages with whale sharks in Musandam. I have to confess I am jealous, but so glad that a lot of divers here managed to see these amazing creatures. I'm sure this made them respect the sea and the underwater life even more and most importantly inspired them to support EDA's efforts and other organizations to monitor and protect marine life.

Part of what I do at EDA is representing the organization in many events related to diving, marine environment and some social functions in the UAE. Most of the time, I am requested to give a speech on behalf of the Board of Directors and talk a bit about the diving industry and the marine environment projects that we run at EDA. I had the pleasure of representing EDA in two recent functions:

The first was the EDA Digital Online photo competition result announcement ceremony; thanks to EDA staff and to everybody who sent their photos in for the competition. This was so far one of the best events we had this year and it enabled us to meet some professional underwater photographers who took us on an underwater journey with their stunning photographs.

The other function was the Filipino Scuba Divers Club (FSDC) celebrating their 15th anniversary in the UAE where I was invited as a guest keynote speaker. This function brought a lot of memories, as FSDC members have always been a very active and have never missed an EDA activity. I enjoyed both functions and I do congratulate the participants in our digital online underwater photo competition and all members of the FSDC in the UAE.

Over the last couple of years we had a high demand from the diving community to have access to a hyperbaric chamber in Dubai; without taking you through the whole story of the famous chamber in Dubai, it is my great pleasure to announce that our members now have free access to a hyperbaric chamber in Dubai (details inside this issue). I do hope that you will dive safely and you won't need it but in the case of emergencies. A big thank you to Dolphin Diving Services, our members only need to show their membership card to have access. Regardless of this, always please remember what Albert Einstein once said "A clever person solves a problem. A wise person avoids it."

We also had other events during the last three months at EDA such as celebrating the World Environment Day in June 2009 by diving in Dubai Mall aquarium with a message to protect our seas. At the same time, the UAE Minister of Environment was visiting the aquarium where he noticed our divers and most importantly our message.

I hope you will enjoy reading this rich issue of our magazine and please do write back to us with your thoughts and suggestions; maybe you can send us your feedback on starting to offset our dives, a Carbon Neutral Dive! What do you think? Do email us back with your thoughts and ideas.

I wish you all Ramadan Kareem and Eid Mubarak.

Eco Regards,

Ibrahim Al-Zu'bi

EDA CELEBRATES WORLD ENVIRONMENT DAY 2009

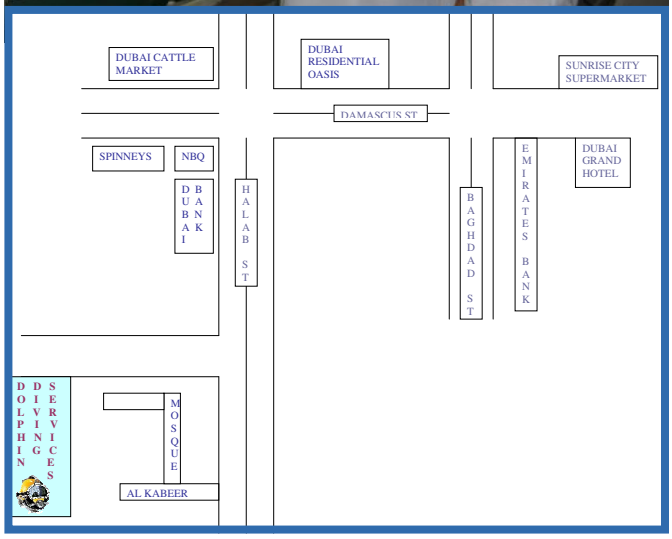
Members of the Emirates Diving Association (EDA) organised a dive in the Dubai Mall aquarium on Friday 5th of June with a banner to celebrate World Environment Day 2009. The slogan read "Let the Ocean Be Our Aquarium".

4 EDA Divers, along with 2 divers from Al Boom Diving entered the cool water of the aquarium at 6pm carrying the banner for everyone to see. Dubai Mall was packed with people who got to observe the divers and see the important message.

Thank you to Al Boom Diving and Dubai Mall Aquarium who made the dive possible.

HYPERBARIC CHAMBER AVAILABLE FOR FREE FOR EDA MEMBERS

FEATURE **REEMA AL ABBAS**



The EDA team was very pleased to hear that Dolphin Diving Services Company (commercial diving) was offering its Hyperbaric Chamber free for EDA members, in case of any emergencies, so we were very keen to go and take a look at the facility.

EDA met with the Managing Director of Dolphin Diving Services, Mr Hilal Al Shanqiti who has a permanent hyperbaric chamber in their warehouse offices and also expecting another one to arrive shortly.

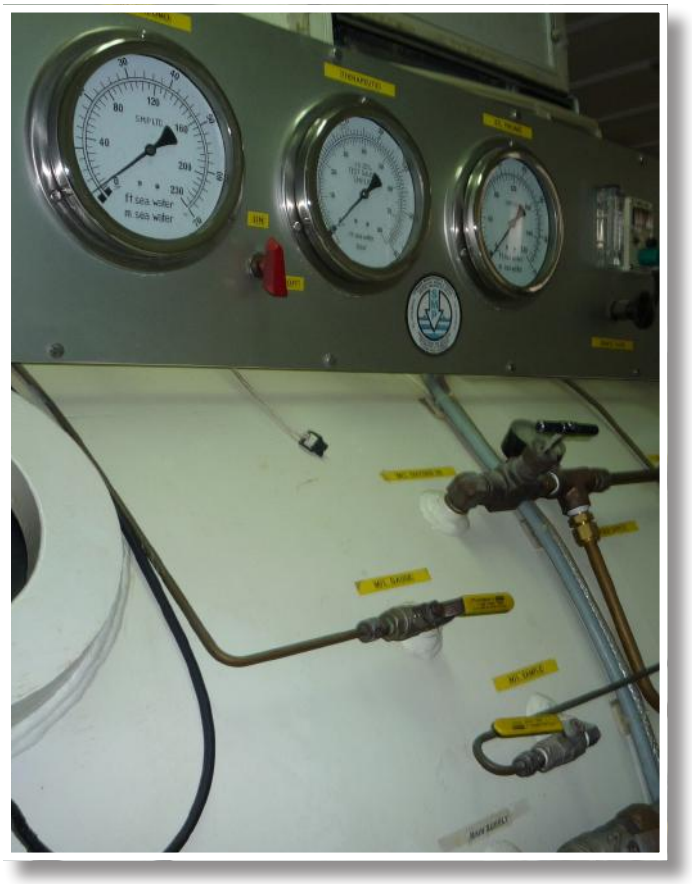
Mr Shanqiti was very welcoming and after a brief chat about their company and about EDA, he took us on a mini tour of his company, which is located in Al Qusais. He pointed out all the equipment they use in commercial diving and patiently explained how everything works. Then it was time to see the Hyperbaric Chamber. We were taken into a caravan-like room which held the chamber. The chamber itself was compact and cylindrical with an elaborate control panel. We took turns to go inside to have a feel of what it was like in there.

Mr Shanqiti also informed us that there was a doctor on call 24hrs a day in case one was needed on site.

We are grateful to Mr Hilal Al Shanqiti for offering the use of the Hyperbaric Chamber to EDA and its members. It was a relief to know that if any emergency case arises, then there is a safe facility available free of charge, where we can send our members to.

In case of an emergency, please contact Dolphin Diving Services at:
Tel: +971 4 267 4332 and mention that you are an EDA member.

If you want to know more about Dolphin Diving Services, please go to their website: **www.dolphindivingser.com**



"OUT OF THE MOUTH OF BABES"

FEATURE AND PHOTOGRAPHY **NOUKHADA ADVENTURE COMPANY**

Our recent event was special for environmentally conscious citizens. Indeed, about 20 teenagers decided to declare war to waste and united their dynamic attitude to a newly registered kayaking eco-tourism company; Noukhada in order to clean-up about a kilometer of the Abu Dhabi Mangroves.

The venue was co-sponsored by TOTAL Abu AL Bukhoosh (ABK), actively involved in the protection of UAE biodiversity.

Very unfortunately the amount of waste and debris inside the city's mangroves, one of UAE's most pristine and vital eco-systems is overwhelming. These teenagers decided to spend some of their vacation cleaning up the Abu Dhabi mangroves and hauled out the trash by kayak.

In about 3 hours, almost 1000 kilos of various debris and waste was collected and hauled back to shore for proper disposal.

Opportunities for experiencing a natural environment in this rapidly building-up emirate are so limited that the activity was a total success.

Abu Dhabi mangroves represent an enclave of relative wilderness amidst swirling traffic and sprawling urban infrastructure. Located just on the border of Abu Dhabi East corniche, the Mangroves are among the few urban protected areas of the UAE.

When prompted on why they wanted to participate, some children answered that: "As grownups are not paying attention to where they leave their trash, I want to show them that it is a kid who will pick it up and bring the garbage where it belongs in the bin". Older participants indicated that they were amazed by the biodiversity such a habitat could host and that they wanted to be part of the protection efforts initiated by their friends.

The protection of Abu Dhabi's natural habitat is our responsibility as citizens of the beautiful city, so let us be touched by the voice of our children.

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FSDC

CELEBRATED ITS 15th YEAR ANNIVERSARY HAVANA-STYLE!

Incumbent Chairperson Cyril Lorilla (left) and incoming Chairperson Eva Amparado cutting the cake

Club founder Joe Acosta and his wife Josie receive their 10 year Loyalty Awards

FSDC Chairperson Cyril Lorilla with EDA group

FSDC members

The Filipino Scuba Divers Club (FSDC) had a sizzling hot 15th Year Anniversary celebration on the 14th August 2009 at Martini Bar of Sofitel City Centre Deira. With its Havana Nights theme, everyone grooved at the party especially the ladies in their salsa outfits and the gents in their Cuban mob style.

Incumbent Chairperson Cyril Lorilla together with co-host and club advisor Jeffrey Amparado led the night's program. The highlights were: the club founder, Joe Acosta related how the club has fostered Loyalty awards to members of 10 and 5 years stay in the club, appreciation awards given to incumbent officers, and the newly elected officers were presented with the incoming chairperson Eva Amparado sharing a few words. To mark the 15th Year anniversary, everyone gathered together to offer a toast during the cake cutting.

What made it more exciting was the food, flowing drinks and the giveaways from Giordano shirts & vouchers, Eastman dive equipment, specialty courses from FSDC dive instructors, Al Boom National Geographic courses, right up to Scuba Dubai dive computers. Ibrahim Al-Zu'bi from Emirates Diving Association was the keynote speaker, the EDA group had so much fun that they gave away four complimentary Reef Check courses.

The night wouldn't be complete if there was no dancing involved. That was why the incumbent and incoming officers treated everyone to Salsa line dancing.

Congratulations to FSDC for a remarkable celebration!

EDA UW PHOTO CONTEST AWARDS CEREMONY

SUNDAY JULY 5th 2009

FEATURE **REEMA AL ABBAS** PHOTOGRAPHY **ROY ALEXIS SISON**

SPONSOR: Le Meridien Al Aqah donated a 2 night stay voucher as the 1st prize.

After a successful response to our Digital Online Underwater Photo Contest, an awards ceremony was held at a conference hall in the Kempinsky Hotel – Mall of The Emirates in Dubai on Sunday 5th of July 2009, to announce the winners of the three different categories; Macro, Wide angle and Fish and announce the overall winners of the contest.

The event began at 7.30 in the foyer where everyone gathered for a small bite to eat and a chat before moving into the conference room. Around 80 people were in attendance.

A short introductory speech was given by Ibrahim Al Zu'bi, which was followed by a slide show by Steve Walsh, showing different underwater images from all over the world. Marcelo Mariozi, who coordinated the competition, then gave a detailed presentation on underwater photography and his vision for the future of UW photography and upcoming competitions and courses. Marcelo also briefly introduced the international panel of judges and their areas of expertise.

The event was concluded by the announcement of the winners, and the winning photos were finally displayed for everyone to marvel at. The gifts were then presented to the winners, along with the medals for the different winning categories.

It was fantastic to see how this contest created an interest towards UW photography and brought out the creativity in many of our members who were not brave enough to show their pictures before. The more we dive and the more we take photos, the more we spread awareness of what's in our oceans.

We will definitely keep you posted on future UW photography courses and contests. We look forward to receiving more of your images from now on!

PRESS RELEASE

LET'S SEAL **THE DEAL!**

UNITED NATIONS ENVIRONMENT PROGRAMME

This powerful campaign has one vital aim: To encourage the governments of the world to agree on a deal that will protect people and the planet when they meet to negotiate a new climate change agreement. The Seal the Deal! campaign is about mobilizing millions of individuals, businesses, community groups and other organizations around the world in the lead-up to the crucial UN climate convention meeting in December 2009. Show your support by taking practical action as follows:

1. Stamp your right to be heard and to determine your fate on this planet by signing the Climate Petition or visit an event where you can dip a People's Seal in ink and stamp the global petition.

2. Adopt the Seal the Deal! call by making it the theme or slogan of your company or organization's planned campaigns on climate change in 2009.

3. Check out what's happening in your area during Climate Week from 20-26 September 2009. Or plan your own activity to support Seal the Deal! and share it with us.

4. Make a statement and create your own legacy by arranging a tree planting activity. You will also be helping to achieve the UN target of planting seven billion trees by the end of 2009.

5. Look for Seal the Deal! on Facebook and World Climate Community. Join the debate on Twitter. Every voice counts! Spread the word within your own networks to help get the Seal the Deal! message out to as many people as possible, in every corner of the world. Climate change affects you!

To sign the petition: http://www.sealthedeal2009.org/petition/

United Nations Environment Programme
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hb.gro.enu.www

For further information:
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EDA QUIZ
GENERAL

ANSWERS FOUND ON PAGE 50

1. What's the name of the sensory system that sharks and rays use to sense weak electrical signals in the water?
   a) Ampullae of Lorenzini
   b) Lateral line
   c) Roman ampullae
   d) Dermal denticle

2. What of the following is a fish?
   a) Cuttlefish
   b) Jellyfish
   c) Starfish
   d) Seahorse

3. What is the study of fish called?
   a) Etiology
   b) Chronology
   c) Ichthyology
   d) Entomology

4. What is an "oviparous" animal?
   a) It is an egg-laying mammal
   b) This animal eats only ants
   c) This animal is a mammal having no teeth
   d) None of the above

5. What are invertebrates?
   a) Animals having no vertebral column
   b) Animals which eat plants
   c) Animals which live both in land and water
   d) None of the above

6. Fish respire through their:
   a) Lungs
   b) Ear
   c) Nose
   d) Gills

7. All the following are invertebrates except:
   a) Crab
   b) Snail
   c) Fish
   d) Prawn

8. The Class Gastropoda includes:
   a) Snails and bivalves
   b) Snails and slugs
   c) Squids and octopus
   d) Slugs and squids

9. This class comprises:
   a) 20% of living molluscs
   b) 50% of living molluscs
   c) 80% of living molluscs
   d) 95% of living molluscs

10. Gastropods are characterized by "torsion":
    a) A process that results in the rotation of the visceral mass and mantle on the foot
    b) A twisting force ability
    c) A tortuous approach they use to catch their prey
    d) An alteration of the body when they are in stress

11. Gastropods live in every conceivable habitat on Earth:
    a) True
    b) False

12. Gastropods have in all, or part of their lives:
    a) No shell
    b) One shell
    c) Two shells
    d) Three shells

EDA'S MOVIE SOCIAL ON 7th JUNE 2009

Emirates Diving Association hosted a movie night social on Sunday 7th of June 2009. To mark World Environment Day and World's Oceans Day, a short documentary was shown from the series of the Journey to Planet Earth called 'The State of the Ocean's Animals', which was narrated by Matt Damon.

The venue for the event was held at CineStar Cinemas at Mall of the Emirates. CineStar are big supporters of the environment and EDA, and were able to provide the cinema hall for free. Special thanks go to Mr. Toni El Massih, The Regional Manager (cinemas and concessions) of CineStar Cinemas, who organised the venue for EDA, and with the help of his brilliant colleagues, the event went smoothly, without a single glitch. Approximately 200 people made attendance and everyone watched intently as the documentary began, shedding some light on the plight of the Ocean's animals at this present time. It was definitely food for thought.

EDA are looking forward to screening more documentaries/movies in the near future with the support of CineStar, as they think it's a good way to enjoy one's self as well as go away with some important knowledge and information about the environment.



REEF CHECK TRAINING WITH EDA

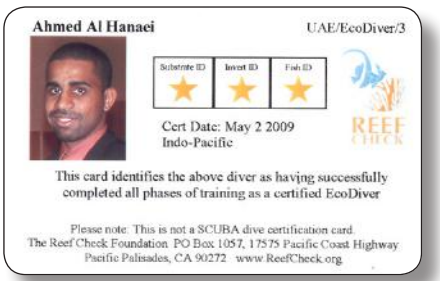
Congratulations to the 12 students that did the Reef Check training with EDA! The two full days of classes, together with the dives was hard work, but a lot of fun at the same time. We still have students doing the training and we know that they will soon be joining us on the Reef Check dives.

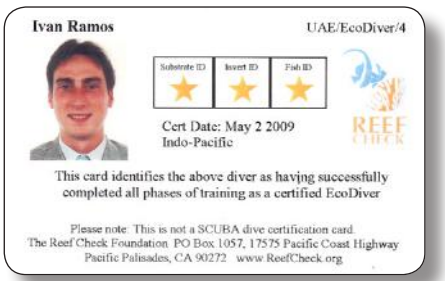
We are proud to say that EDA is the only organization conducting Reef Check dives in the UAE and EDA Marine Biologist, Rita Bento is the only certified Reef Check trainer in the UAE (according to the Reef Check headquarters).

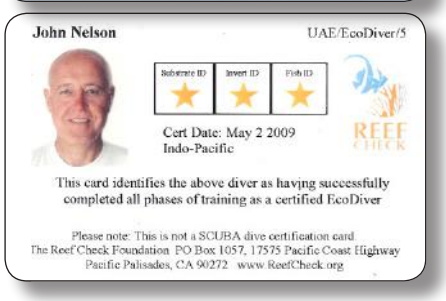
The Reef Check Foundation, founded in 1996, is an international non-profit organization dedicated to conservation of two ecosystems: tropical coral reefs and California rocky reefs. With headquarters in Los Angeles and volunteer teams in more than 80 countries, Reef Check works to create partnerships among community volunteers, government agencies, businesses, universities and other non-profit organizations.

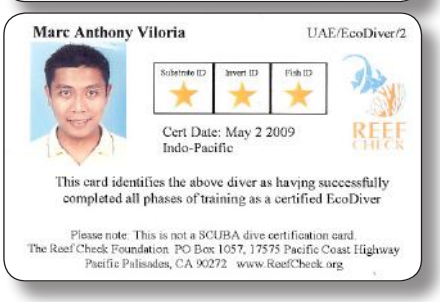
Reef Check goals are to: educate the public about the value of reef ecosystems and the current crisis affecting marine life; to create a global network of volunteer teams trained in Reef Check's scientific methods who regularly monitor and report on reef health; to facilitate collaboration that produces ecologically sound and economically sustainable solutions; and to stimulate local community action to protect remaining pristine reefs and rehabilitate damaged reefs worldwide.

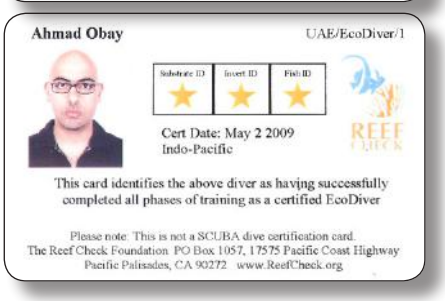
To learn more about Reef Check take a look at the website: **http://reefcheck.org**

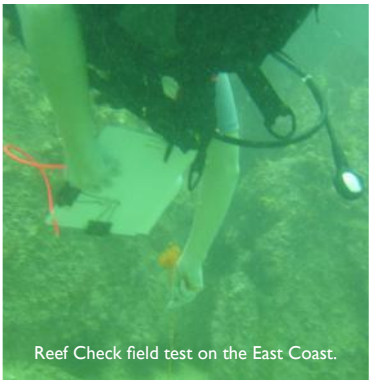












Reef Check field test on the East Coast.

AQUALUNG LOYALTY PROGRAMME

Are you thinking of buying a new reg? Bring in your old reg for credit towards your new Aqualung reg purchase. Your reg can be of any brand, but should be in good working order. Rebate value will be assessed on site for your approval.

Aqualung boasts a variety of excellent regulators from the premium, over-balanced Legend, to the travelers dream – the Micron, to the ideal school and entry level Titan reg. All reasonably priced from Dhs 1,250 to Dhs 2,700.

Aqualung is distributed by Al Boom Diving.
Contact them on: **04 342 2993** or email: **abdiving@emirates.net.ae**

AQUALUNG®

BECOME A **NATIONAL GEOGRAPHIC DIVER** THIS WEEKEND

Al Boom Diving's PADI 5 Star Dive Centre at Le Meridien Al Aqah is now offering the National Geographic courses. Why not take advantage of the summer weekend hotel rates, and become a National Geographic Diver this weekend?

PADI invites you to "Join an elite group of divers who are more than tourists, but explorers, adventurers and conservationists," in this course.

In the course, you will learn to:

- fine-tune your buoyancy
- make detailed observations of a dive site, to use in producing a map of that site
- improve your navigation skills
- discover underwater aquatic creatures and learn to identify a multitude of species
- read through the National Geographic Portal-Pak and improve your knowledge of the underwater world

Al Boom Diving is offering the course to certified divers at Dhs 1,000 this summer. Contact Al Boom Diving on **04 342 2993** to learn more.

JEBEL ALI GOLF RESORT & SPA

Dubai's Only True Resort

JEBEL ALI GOLF RESORT & SPA TEAMS UP WITH AL BOOM DIVING CENTRE

The diving centre at Jebel Ali Golf Resort & Spa will offer "PADI open water" courses, "day of scuba diving for certified divers" and "discovering scuba diving" in Jebel Ali.

DUBAI, 16th JULY 2009 – A new diving centre operated by Al Boom will open soon at Jebel Ali Golf Resort & Spa, flagship property of Jebel Ali International Hotels.

As Jebel Ali Golf Resort & Spa offers the best services to its guests, it will launch a new diving centre fully operated by Al Boom Diving Centre, the leading dive operator in the UAE with a PADI 5 star dive centre in Dubai. Their fully equipped 42 foot speed boat will be moored at the Jebel Ali Golf Resort & Spa's marina, and will follow all safety measures to ensure a fun and safe diving experience to all guests. Three trips will take place on a daily basis with small groups of divers under the supervision of an instructor at the protected areas on the nearby breakwater reef.

"We are delighted to open the diving centre in the resort that will add to the broad range of activities we have to offer our guests at Dubai's Only True Resort" said David Thomson, General Manager of Jebel Ali Golf Resort & Spa.

The diving centre at Jebel Ali Golf Resort & Spa will also offer "PADI open water" courses, "day of scuba diving for certified divers" and "discovering scuba diving in Jebel Ali".

Simon Tambling, General Manager of Diving for Al Boom said, "We are keen to keep Al Boom Diving Centre a leading dive operator. As well as offering our customers more opportunities to explore the beauty of the Arabian Gulf, we are excited to expand our operations to Jebel Ali Golf Resort & Spa".

In addition to the diving centre, divers can enjoy various water sport activities offered by Jebel Ali Golf Resort & Spa. The launching of Al boom Diving Centre at Jebel Ali Golf Resort & Spa will be on the 14th August offering beach access for only AED 50 per person including BBQ lunch.

Jebel Ali International Hotels is the successful owner and/or operator of the five star Jebel Ali Golf Resort & Spa, comprising the Jebel Ali Hotel and the all-suite Palm Tree Court & Spa a member of; the Hatta Fort Hotel, nestled amidst the majestic Hajar mountains; the 180 luxury serviced hotel apartments of the Oasis Beach Tower located on the famous Jumeirah Beach strip; Bateaux Dubai, the unique dining cruise vessel on Dubai Creek; the Jebel Ali International Shooting Club, the Jebel Ali International Centre of Excellence and Al Sahra Desert Resort which is also managed by the company.

IS YOUR **EFR CERTIFICATION** UPDATED?

Calling all divers holding the Emergency First Response certification! Is your EFR or other first aid certification renewed?

The EFR (and other first aid agency's) certification is valid for a period of only two years, after which you must do an update. Changes and advances in first aid care make this vitally important in delivering the best care in case of an emergency.

EFR updates will be held at Al Boom Diving from 6pm to 9pm on the second and last Wednesday of each month. The cost is Dhs 400. Contact Al Boom Diving on email: **abdiving@emirates.net.ae**

OTHER MONTHLY SCHEDULES:

Al Boom Diving also offers the Nitrox Specialty Course on the second and last Tuesday of each month; and holds a Night Dive in Dubai on the first and last Wednesday of each month

COURSE	SCHEDULE	TIME
Nitrox	Second and last Tuesday of each month	6pm – 9pm
Night Dive	First and third Wednesday of each month	6pm – 9pm
EFR Refresher	Second and last Wednesday of each month	6pm – 9pm

AL BOOM DIVING
MAN-MADE REEF PROJECT

FEATURE AND PHOTOGRAPHY **AL BOOM DIVING**

Al Boom Diving has started a project to place artificial reefs around the UAE.

Man's activities and natural disasters have led to a reduction in our natural reef systems. The loss of our natural systems, coupled with increased use, compels us to do all that we can to save the natural coral reefs.

"Experts agree that coral reefs around the world are in danger with only 5-6% of the reefs in areas such as the Philippines and Indonesia being classed in 'pristine' condition," says Francis Uy, Course Director at Al Boom Diving. "We have therefore decided to take some action."

PLACEMENT OF REEF AT LE MERIDIEN AL AQAH

Placement of 18 reef structures, and reefballs – from the Reefball Foundation, took place at Le Meridien Al Aqah Beach Resort in Fujairah on Sunday the 14th June. "We at Le Meridien Al Aqah Beach Resort have wanted to place an artificial reef for some time, and are happy that the project has taken shape. The reef is our new underwater accommodation for our little friends," says Patrick Antaki, GM of Le Meridien Al Aqah.

Reefball construction sponsored by Rip Curl, the Fujairah Municipality and FNTC and SIJI cement were placed off Le Meridien Al Aqah Beach Resort in 10m of water. A man-made reef structure, created by Eco, a recycle plastics company in Jebel Ali in consultation with man-made reef experts, was also placed. This selection of structures will give diversity to the reef and assist in attracting a variety of species.

The day was followed up by placement of another 13 reefballs on Monday the 13th July. Marine friendly cement, construction and transportation of the reefballs were kindly sponsored by the Lootah Group.

The Meridien Reef is already showing signs of plant life, with juvenile banner fish, hammour, crabs and cuttlefish in residence in the new underwater accommodation. Al Boom Diving is monitoring the reef progress and has placed a marker buoy on site.

Over the summer the reef will be expanded and the area that once was a sandy bottom is set to become a fish habitat that may show signs of coral in time.

REEFBALL FOUNDATION

The Reefballs placed were constructed from moulds and guidelines from the Reef Ball Foundation, Inc. This is a non-profit organization that functions as an international environmental organization. The foundation uses Reef Ball artificial reef technology, combined with coral propagation, transplant technology, public education and community training to build, restore and protect coral reefs. The foundation has established "Reef Ball reefs" in over 56 countries with ongoing projects in 14 additional countries (giving a total of over 70 countries).

REEFBALL EXHIBIT IN THE DUBAI AQUARIUM & UNDERWATER ZOO

To raise public awareness for both the project and the status of coral reefs around the world, the Dubai Aquarium & Underwater Zoo has placed a Reefball exhibit in the Underwater Zoo in the Dubai Mall.

Visitors can see the Reefballs in action, as a sample of a man made reef in the open ocean.

"The aim of the exhibit is to highlight to the general public the need for reef conservation," says Paul Hamilton, Curator of the Dubai Aquarium & Underwater Zoo.

NEXT STEPS

In addition to expanding the Meridien Reef, Al Boom Diving is working with partners and environmental organisations to identify possible sites for other man-made reefs around the UAE.

"Eco-tourism and eco-diving are on the cards for the UAE," says Simon Tambling, Managing Partner of Al Boom Diving.

LADIES DIVE @ **THE DUBAI LADIES CLUB**

WOMEN-ONLY DIVE CENTRE LAUNCHES AT THE DUBAI LADIES CLUB

AUGUST 2009 The Dubai Ladies Club is pleased to announce the opening of Ladies Dive @ The Dubai Ladies Club, a new dive centre run exclusively by ladies for ladies.

Set in the luxurious surroundings of the Dubai Ladies Club, Ladies Dive offers the complete range of PADI diving courses and fun dives with Francine, Ladies Dive's professional multilingual PADI-certified instructor.

Ladies Dive aims to dispel the image of diving as a male-dominated leisure activity and show that diving has many benefits, including promoting weight loss.

Ladies Dive is located at the beach pavilion of the Dubai Ladies Club overlooking one of the most beautiful beaches in Dubai and is open to both members and non-members. The dive center is spacious and fully equipped with easy access to the pool facilities and brand new equipment designed specifically for ladies and in attractive colors such as pink, purple and blue. Courses can be conducted in English, German and French.

Madelaine Stocks, the Dubai Ladies Club's Wellness Manager commented: "We are delighted that Francine has joined forces with us to launch Ladies Dive and we are confident that it will be hugely popular with the ladies of Dubai. The Dubai Ladies Club is a unique concept that combines modern, world-class facilities and activities that suit the requirements of women. Diving is a fun, educational experience (in addition to being good exercise) and Ladies Dive is the perfect addition to the Club's existing list of activities. I will be one of the first to give it a try!"

Prices start from AED 100 for a Try Dive (AED 150 for non-members).

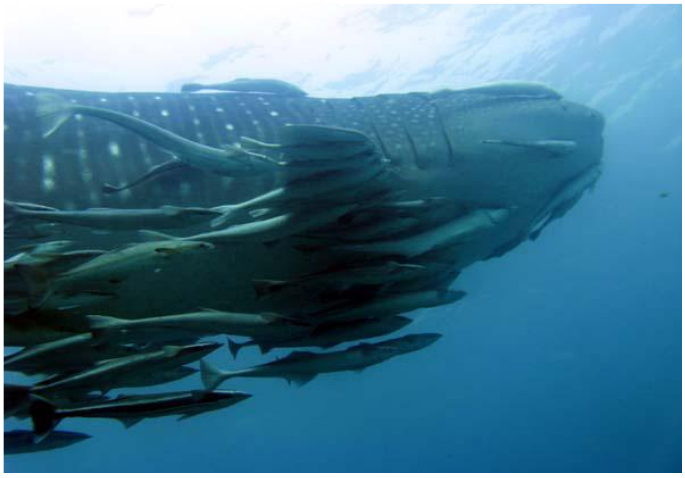
For more information, please contact:
Francine on +971 50 809 3701 or by email at ladiesdive@gmail.com or The Dubai Ladies Club reception on +971 4 349 9922
www.ladiesdive.com

WHALE SHARK SIGHTING

PHOTOGRAPHY **DR. JEAN-MICHEL MORINIERE**

Here are some photos taken by EDA member Dr. Jean-Michel Moriniere of a whale shark taken on the afternoon of July 14th at Dibba Rock.

"It has been spotted at least 6 times in the past 3 weeks by JAI divers. I missed it twice last week but I have seen it yesterday."



WHALE SHARKS
SWIMMING AT LIMA ROCK, MUSANDAM

PHOTOGRAPHY **PHILIPPE LECOMTE**

During two dives in Musandam at Lima Rock, both north and south side, we got to see between 3 and 4 whale sharks. We were 10 divers during the trip and everyone enjoyed the weekend because by the end of the trip, half of the group got to realize their dream of seeing a whale shark.

We had great visibility and even got to see a leopard shark.

On arriving at Lima rock, the first diver went into the water to find a whale shark under the boat. At this moment everybody was surprised to hear a yell calling out, "WHALE SHARK". Some divers managed to quickly get in the water in order to get a chance to see it, but unfortunatly, it was too quick and dispappeared into the depths of the deep blue. Some of the divers didn't see it at all. But, during the last quarter of the dive, we got to see another whale shark several times. This was an unforgetable dive for everyone.

6 divers decided to do another dive on the other side of Lima rock. We were lucky to have decided this, because during the dive we saw a whale shark every 5 minutes. It was amazing…everyone had had a chance to take photographs of these magestic creatures. This is definately one diving weekend that will be hard to forget.

UP TO 40% CORAL BLEACHING RECORDED IN BALI

FEATURE **REEF CHECK INDONESIA**

In early June, after receiving a report from local fishermen in Tejakula, on the north coast of Bali, Reef Check Foundation Indonesia (RCFI) **(www.reefcheck.or.id/)** conducted a rapid assessment along the coast from Pemuteran to the Amed area (approximately 120km of shore line). The survey showed that Amed had the highest hard coral bleaching percentage, a total of 40% of hard coral in the area. The lowest level of bleaching was found at Tulamben, with 10% of hard coral bleached. The bleaching affected the following corals: Acropora (tabulate and branching), Pocillopora, Stylophora, Montipora (submassive and encrusting), Porites, Pavona, Hydnophora, Favites, Galaxea, Fungia, Ctenactis, Sandolitha, Astreopora, Symphyllia, Platygyra, Diploastrea, Heliopora, Lobophyllia, Millepora, Goniastrea, and Pectinia.

The hard coral species more susceptible to bleaching, such as Seriotopora, Pocillopora, Stylophora, and Pavona, experienced severe bleaching, while the more resistant hard corals, such as Porites, were partially bleached, or not bleached at all. The soft corals Sarcophyton and Sinularia, anemones,and zooanthids were also bleached.

The water temperature ranged from 29 to 30°C during the surveys – a somewhat moderate temperature elevation, which may explain why the bleaching was not so severe.

The last coral bleaching event in Bali was recorded in 2005, near the Ngurah Rai Airport. The survey showed that 75% of hard corals bleached, including all foliose Montipora. A survey conducted in the same area a year later showed no more soft coral, possibly a victim of the bleaching.

The biggest bleaching event in Bali occurred during 1997-1998, as part of the global mass bleaching phenomenon. At that time, Indonesia saw 50% or more hard coral bleaching. In Bali Barat National Park the bleaching hit 100% of coral cover, while in Lombok, Gili Island the bleaching affected 90% of the area. Other areas with bleaching were Seribu National Park, East Kalimantan and Karimunjawa. At that time, the mortality level of the bleaching coral in Karimunjawa was up to 50-60% (Irdez et al, 1998).

According to an analysis by economist Dr. Herman Cesar, a severe coral bleaching event in the next 50 years in South East Asia would cause financial losses due to reduced products and services from fisheries and tourism, as well as biodiversity degradation of up to US$38.3 billion (Cesar et all, 2003).

"Coral reefs in Bali are bleaching; this condition needs a collaborative effort from various parties to manage the impact," says Naneng Setiasih, the Chairwoman of Reef Check Indonesia Foundation.

The first thing to do at the local level is to preserve coral reefs by reducing other threats. Coral reefs with lower threats will have a better ability to deal with bleaching. Some steps you can take to help coral reefs include:

1. Improve management of existing marine conservation areas.

2. Stop overfishing and destructive methods of fishing such as blast and cyanide fishing.

3. Reduce fishing of herbivorous fish (dead coral covered by algae needs to be grazed by those fishes, so that the area can be populated by corals).

If you would like to help monitor the bleaching in Indonesia, contact Jensi Sartin at **jensi@reefcheck.org**. Thank you to the following partners for their help in conducting this rapid assessment: Reefseen Aquatic, Spicedive Lovina, Gaia Oasis, Puri Mada Tulamben, Emerald Tulamben Hotel and Spa, and Bayu Cottages Amed.

Editors note: *this report from Indonesia is a perfect example of the value of Reef Check teams. Teams of staff and volunteers are able to spring into action at short notice to track impacts on coral reefs. An area of hot water in the Indian Ocean is causing bleaching from Indonesia to New Georgia, but is expected to slowly dissipate.*

RECOMMENDATIONS FOR **ACTION TO CONSERVE CORAL REEFS**

(IN STATUS OF CORAL REEFS OF THE WORLD: 2008)

FEATURE **CLIVE WILKINSON** PHOTOGRAPHY **MARCELO MARIOZI**

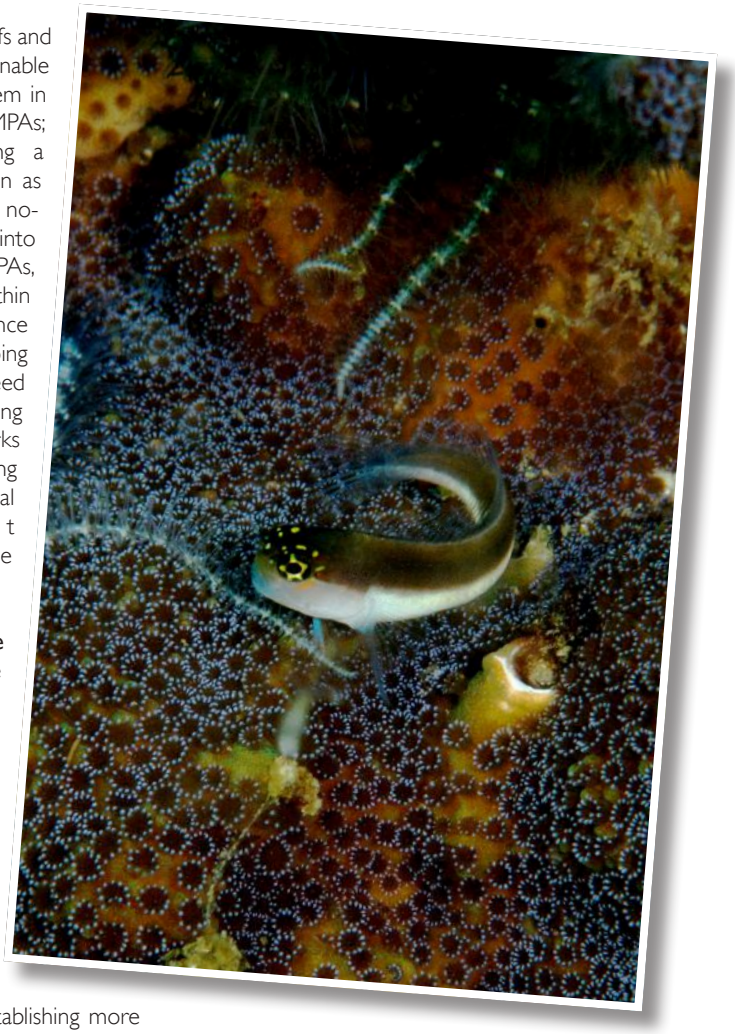
These summary recommendations are based on the 17 regional chapters and the other specialist reports. There are more detailed and specific recommendations at the end of most chapters: these are considered the most urgent by the many authors and contributors to conserve coral reefs for future generations:

- **Urgently combat global climate change** – current rates of climate change pose the greatest threat to the long-term sustainability of coral reefs and human coastal communities. We request that the world community, through their governments, agencies, NGOs, academic institutions and especially business establishments, collaborate to urgently reduce the current rate of emissions of greenhouse gases through reductions in energy use and the development of sustainable energy generating mechanisms or trading systems, and develop technologies to remove these gases, especially CO2, from the atmosphere, to ensure that coral reefs will thrive in the next century.

- **Maximise coral reef resilience (by minimising direct human pressures on reefs)** – the second major threat to reefs derives from direct human activities: over-fishing and destructive fishing; sediment pollution from poor land use; runoff of nutrients and other pollution; and habitat loss through unsustainable development. Control of these threats, which are damaging reefs around the world especially in developing countries including small island developing states, will improve the resilience of coral reefs in the face of climate change. These countries need assistance to improve local catchment and coastal management by upgrading capacity and providing funds to implement community-based management and develop alternative livelihoods to take pressures off reefs.

- **Scale up management of protected areas** – there is a need to improve the management of existing marine protected areas (MPAs) to accelerate restoration of depleted fish stocks and protect coral reef goods and services that underpin coastal economies and livelihoods. This includes managing adjacent catchment areas to prevent nutrient and sediment pollution to create buffer areas that will reinforce MPA management activities.

- **Include more reefs in MPAs** – a proven and effective governance approach for conserving coral reefs and promoting sustainable use is to include them in effectively managed MPAs; preferably containing a significant proportion as fishery reserves or no-take areas, linked into a network of MPAs, and embedded within a larger governance framework. Developing countries will need assistance in expanding their MPA networks and establishing integrated coastal management (ICM) governance frameworks.



- **Protect remote reefs** – there are many coral reefs remote from continental land masses and human populations that, if they are protected, will be able to act as reservoirs of biodiversity to replenish depleted reefs. We recommend establishing more MPAs to include many of the remote island reefs, like those to the west of Hawai'i, in Kiribati, and the Coral Sea east of the Great Barrier Reef. Developed countries may have the best resources in governance and enforcement to conserve large remote areas in their territorial waters.

- **Improve enforcement of MPA regulations** – enforceable governance systems will be required to deal with the formidable problem of regulating access to managed ecosystems (including types and rates of resource exploitation). Many countries will need assistance to establish effective enforcement systems that function in different marine coastal and marine environments and do not undermine local cultural values and practices.

- **Help improve decision making with better ecological and socioeconomic monitoring** – there is an urgent need to upscale monitoring, especially with increasing threats of climate change, to ensure that this information is provided to natural resource managers and decision makers so that appropriate actions can be taken to reduce threats to reefs and coastal communities.

SAFETY DIVING

FOR THE HELICOPTER UNDERWATER ESCAPE TRAINING

FEATURE **MARK VINCENT ISRAEL** PHOTOGRAPHY **DUBAI PETROLEUM TRAINING CENTRE**

The probability of a helicopter going down in the water for those working on the Oil Rigs is unlikely. However, those who wish to use it as a means of transportation to work in the Oil Rigs must undergo this training. Executives and rank and file alike must be able to escape from a chopper landing in the water.

You cannot give what you don't have. The reason for the team of Instructors and Divemasters of Al Boom Diving, to experience the Dubai Petroleum Training Centre's Helicopter Underwater Escape Training (HUET) before acting out as Safety Divers for the simulated exercise.

If the helicopter conducts a controlled ditching and remains afloat, the passengers should know how to brace for impact and release the safety belt to be able to transfer to the life raft. Once in the raft, the delegates are taught to release the mooring line and lift the canopy.

Should the helicopter start to sink after ditching, then the delegates must remember to assess and consider the hazards of the rotor blades first before releasing the windows or the door. By assessing for a few seconds, this allows for the rotors to stop, violent movement to ease and the pressure inside and out to equalize allowing easier window and door release.

The delegates upon reaching the surface must move clear of the trainer/helicopter. The non-swimmers on the other hand, must be assisted to the surface. The non-swimmers will also be towed back to the trainer by the safety divers.

In the logical event of a helicopter capsizing underwater, since the engine is much heavier than the rest of the body, the delegates must be able to release his safety belt while upside down. In this exercise, water will get inside your nose. You have to place your hand on the exit window and be ready to push. When it stops moving, push the window out, release the buckle, and swim to the surface.

In these exercises, 2 safety divers must be on either side of the simulator. They must supervise the delegates swimming to the trainer. Adding to the challenge, there are people who don't know how to swim that are made to undergo the training. So right from the start, the Safety Divers would have to assist and tow the non-swimmers to the trainer.

The safety divers must be ready to help the instructor inside the simulator in the event that a student panics, can't release the belt, gets disoriented and swims underneath the trainer, or any other problem that could arise. They must also be ready to help open the window in the event that the delegate cannot do it himself.

Safety diving is a different kind of diving. Aside from wearing a helmet, which could be strange at first, this type of diving also requires heightened alertness. You should be quick to see if the divers have problems underwater and also the instructor inside the trainer.

In the event of trouble underwater, be it a participant trapped in his seat, or panicked and stood up inside the trainer, the safety divers will have to call the supervisor controlling the device to lift the trainer up. He must shout 'recover' and then the supervisor will lift the trainer up.

When all goes well, you will always see happy faces from the participants after the training. There is a certain rush that they feel in doing it, so much like being in a rollercoaster ride. The HUET training is scheduled every Tuesday at the DPTC. This is a rewarding and challenging and very important safety exercise for those who work on the offshore oil rigs. May it prepare them for the unlikely but possible helicopter accident in the ocean.

It is very unlikely that a helicopter incident will take place. Should it happen though, with this training, the chance of survival is significantly increased.

Mark Vincent Israel
PADI Master SCUBA Diver Trainer and Certified Helicopter Underwater Escape Training Safety Diver

TURTLE RESCUE

FEATURE **BRIAN MEREDITH** PHOTOGRAPHY **RENE KROMES**

Never could my friends or I imagine such cruelty to one of the oceans gentlest creatures!

Several weeks ago our group was diving in Khor Fakkan. While on our surface interval at Shark Island bay everyone was excited to see a small turtle surface for air near the boat. The boat tilted precariously as we all rushed to one side and leaned over to look at this beautiful sight. However, as the turtle dived, we saw rope trailing from its rear leg.

It needs our help!

Without hesitation three of us grabbed our masks, snorkels and fins and gently entered the water fanning out in a search pattern. We soon located the turtle and began to shadow it waiting for it to surface again. It became a little nervous when it realised we were there but knew it had to come up for air. As it surfaced we managed to catch it. We gently held its sides and swam back to the boat allowing it's head to remain above water to breathe.

Once on board we were horrified to find that it had not accidently become tangled in rope as we had first thought. Rope had been tied in cruel tight knots around three of its legs. The rope had been tied so tightly around its front left leg the supply of blood had been cut off and the leg had withered badly.

With tears welling in my eyes I covered its head to minimise any stress and began to carefully cut away the rope from its legs.

Mercifully the rope had not cut too deeply into the other two legs and I quickly released the cruel bight held by the knots.

We lowered the tiny animal back into the water and were relieved to see it swim off strongly using its one good front leg. We wished it luck as it disappeared from sight.

How could anyone do this? We were devastated at this display of abject cruelty to one of nature's gentlest creatures but at the same time we were happy in the thought that we had done everything possible to give it a fighting chance of survival.

NEW STUDY FIRST TO IDENTIFY NATIONAL ECONOMIES THAT ARE LIKELY TO SUFFER MOST AS CLIMATE CHANGE IMPERILS FISHERIES

FEATURE **EDWARD H. ALLISON, ALLISON L. PERRY, MARIE-CAROLINE BADJECK, W. NEIL ADGER, KATRINA BROWN, DECLAN CONWAY, ASHLEY S. HALLS, GRAHAM M. PILLING, JOHN D. REYNOLDS, NEIL L. ANDREW AND NICHOLAS K. DULVY**

Research on Fisheries Worldwide Warns Climate Change Combined with Fisheries Dependency and Limited Capacity to Adapt Pose Dangerous Triple Threat to Countries in Africa, South America, and Asia.

PENANG, MALAYSIA (6 February 2009) – With climate change threatening to destroy coral reefs, push salt water into freshwater habitats and produce more coastal storms, millions of struggling people in fishery-dependent nations of Africa, Asia and South America could face unprecedented hardship, according to a new study published today in the February issue of the peer-reviewed journal Fish and Fisheries. The study, by a team of scientists at the WorldFish Center, the University of East Anglia, Simon Fraser University, the Centre for Environment, Fisheries and Aquaculture Science, the University of Bremen, and the Mekong River Commission, is the first to identify individual nations that are "highly vulnerable" to the impact of climate change on fisheries.

The authors of the report examined 132 national economies to determine which are the most vulnerable, based on environmental, fisheries, dietary and economic factors. Countries that need the most attention, they said, are not necessarily the places that will experience the greatest environmental impacts on their fisheries. Rather, they are countries where fish play a large role in diet, income and trade yet there is a lack of capacity to adapt to problems caused by climate change – such as loss of coral reef habitats to the bleaching effects of warmer waters and lakes parched by an increase in heat and a decrease in precipitation. For example, fish accounts for 27 percent or more of daily protein intake in vulnerable countries – compared to 13 percent in non-vulnerable nations – and there are scant resources for alternative sources of protein.

Both coastal and landlocked countries in Africa, including Malawi, Guinea, Senegal and Uganda, four Asian tropical countries – Bangladesh, Cambodia, Pakistan and Yemen – and two countries in South America, Peru and Colombia, were identified as the most economically vulnerable to the effects of global warming on fisheries. Overall, of the 33 countries that were considered highly vulnerable, 19 are already classified by the United Nations as "least developed" due to their particularly poor socioeconomic conditions.

The world's fisheries provide more than 2.6 billion people with at least 20 percent of their average annual per capita protein intake, according to the United Nation's Food and Agriculture Organization (FAO). The "highly vulnerable" countries identified in the WorldFish study, which was funded by the United Kingdom's Department for International Development (DFID), produce 20 percent of the world's fish exports (by value). The researchers note that these countries should be a priority for adaptation efforts that will allow them to endure the effects of climate change and maintain or enhance the contribution that fisheries can make to poverty reduction.

"From a strictly environmental perspective, countries in the higher latitudes will see the most pronounced impact from climate change on fishing," said Edward Allison, director of policy, economics and social science at WorldFish and the paper's lead author. "But economically, people in the tropics and subtropics likely will suffer most, because fish are so important in their diets and because they have limited capacity to develop other sources of income and food."

"We believe it is urgent to start identifying these vulnerable countries, because the damage will be greatly compounded unless national governments and international institutions like the World Bank act now to include the fish sector in plans for helping the poor cope with climate change," he added.

Two-thirds of the most vulnerable nations are in tropical Africa, where in many countries fish account for more than half of daily animal protein consumption and where research indicates that fish production in both coastal and inland waters is highly sensitive to climate variations.

In coastal regions, climate variations can significantly alter the flow of nutrient-rich waters – known as upwellings – which sustain fish populations that feed millions in sub-Saharan Africa. Meanwhile, in eastern and southern Africa, rising temperatures in freshwater lakes over the last century have already reduced fish stocks. Future climate change is expected to worsen this trend, while also leading to lower water levels due to decreased rain and increased evaporation.

In the vulnerable countries of South Asia, the potential problems include increased bleaching of coral reefs, caused by a rise in ocean temperatures. In addition, changes in river flows, resulting from reduced snowfall, and melting glaciers, present dangers to freshwater habitats. Scientists predict up to a two-thirds reduction in the summer flows of the Ganges River, which could diminish what are now highly productive river and floodplain fisheries. In addition, fish-dependent people of Bangladesh could see their coastal catch reduced, as a result of predicted increases in the frequency and intensity of tropical storms. Meanwhile, across Southeast Asia, inland freshwater habitats could be damaged by intrusions of salt water as sea levels rise.

In northern South America, the concern is that climate change will alter coastal upwellings, which sustain huge catches of anchovies, sardines and other varieties of small, "pelagic" fish. Evidence on changes induced by the warming effects of El Ni–o indicates that a rise in ocean temperatures can cause a decline in Peruvian anchovy populations (though sardines may tend to increase), according to the study.

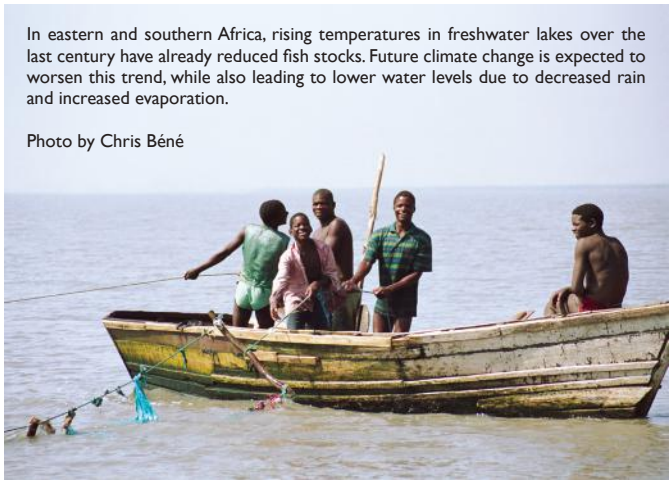
"The problems driven by climate change are bad enough by themselves; what will make them much worse are the economic and institutional weaknesses of the vulnerable countries identified in this study and their fishing communities," said Steve Hall, director general of WorldFish. "Fisheries are already under tremendous pressure from overfishing, habitat loss, pollution and a range of other factors. Climate adaptation measures must go hand in hand with efforts to confront other threats if these countries are to succeed in building sustainable livelihoods for fish-dependent people."

Adding weight to the report's findings is the fact that its co-authors include Neil Adger, who played a major role in drafting the 2007 UN report on climate change that was awarded the 2007 Nobel Peace Prize, and Ashley Halls, the fisheries advisor to the Mekong River Commission, which focuses on the health of one of the largest freshwater fisheries in the world.

The authors of the study see their research as a "useful starting point" for future initiatives aimed at predicting with greater precision the impact of climate change on fish-dependent populations. One of the

Fish-dependent people of Bangladesh could see their coastal catch reduced as a result of predicted increases in the frequency and intensity of tropical storms. Bangladesh is one of the nations identified as highly dependent on fisheries along with Cambodia, DR Congo, Madagascar, Sierra Leone, Tanzania, and Uganda.

Photo by Mark Prein



In eastern and southern Africa, rising temperatures in freshwater lakes over the last century have already reduced fish stocks. Future climate change is expected to worsen this trend, while also leading to lower water levels due to decreased rain and increased evaporation.

Photo by Chris Béné

many lessons learned, according to Allison, is that work in this area needs to consider both coastal and freshwater fisheries. Uganda, for example, though landlocked, depends greatly on freshwater fish, making it highly vulnerable to climate change impacts.

Allison added that he and his colleagues will continue to refine their ability to link climate change to fish productivity and to social and economic conditions. One of the shortcomings of this study, he said, is that there were not enough data on such variables as the social and economic impacts of fisheries at the country level. The scarcity of data was particularly evident for subsistence fishing and small island states, particularly in the Pacific Ocean. In fact, researchers were unable to calculate all the vulnerability components for 60 nations, so these could not be included among the study's list of potentially vulnerable countries. Nevertheless, many of these excluded nations – like Kiribati, Myanmar, Somalia, and the Solomon Islands – most likely have a mix of economic, social and environmental conditions that make them highly vulnerable to the effects of climate change on their fisheries.

ABOUT THE WORLDFISH CENTER:

The WorldFish Center is a non-profit, international research organization that provides solutions to reduce poverty and hunger through fisheries and aquaculture in developing countries. It is one of 15 centers supported by the Consultative Group on International Agricultural Research (CGIAR). WorldFish works with partners in Africa, Asia and the South Pacific to identify science-based solutions to help countries mitigate and adapt to climate change impacting fisheries and aquaculture. Based in Penang, Malaysia, WorldFish has projects in over 20 countries in Asia, Africa and the Pacific; projects are managed through 12 regional offices.

For more information, please visit **www.worldfishcenter.org**.

ABOUT THE CGIAR:

The CGIAR, established in 1971, is a strategic partnership of countries, international and regional organizations and private foundations supporting the work of 15 international centers. In collaboration with national agricultural research systems, civil society and the private sector, the CGIAR fosters sustainable agricultural growth through high-quality science aimed at benefiting the poor through stronger food security, better human nutrition and health, higher incomes and improved management of natural resources.

For more information, please visit **www.cgiar.org**.

UAE SPECIMENS CLARIFY MARINE GASTROPOD TAXONOMY

FEATURE **GARY R. FEULNER**

Specimens from the United Arab Emirates have contributed to two recent scientific studies of the molecular phylogeny (DNA taxonomy) of marine gastropod groups in the Indo-West Pacific region, including the recognition of two new species found locally.

Specimens of UAE Turbo and Lunella spp. from both coasts were examined as part of a study of the broader class of Turbinid (turban-shaped) gastropods.[1] A subsequent paper will focus more narrowly on the two genera Turbo and Lunella in particular, and is expected to confirm the existence of a hitherto unrecognised species in the UAE, first suspected by local naturalists on the basis of consistent morphological differences observed in the course of the collection effort.

In a second study, DNA analysis of specimens from Khor Julfar in Ra's al-Khaimah of the common large bubble shell, previously considered to be Bulla ampulla, has helped to confirm that the species present in the extreme north-western Indian Ocean, including the seashores of Arabia, is in fact a distinct species. It has been named Bulla arabica and the type specimens are those from Ra's al-Khaimah.[2]

B. ampulla has a broad range throughout most of the Indo-West Pacific, from the shores of East Africa to Asia, Northern Australia and New Caledonia, but it appears to be absent from Arabian shores. Instead, the newly recognized B. arabica is the large bubble shell found in the Red Sea, Yemen, Oman and the Arabian Gulf, and eastwards to Karachi. Beached shells of B. arabica, but so far not living animals, have also been found in the eastern Mediterranean.

Both of the foregoing studies were conducted by researchers at the Molluscan Research Unit of the Department of Zoology at The Natural History Museum in London.

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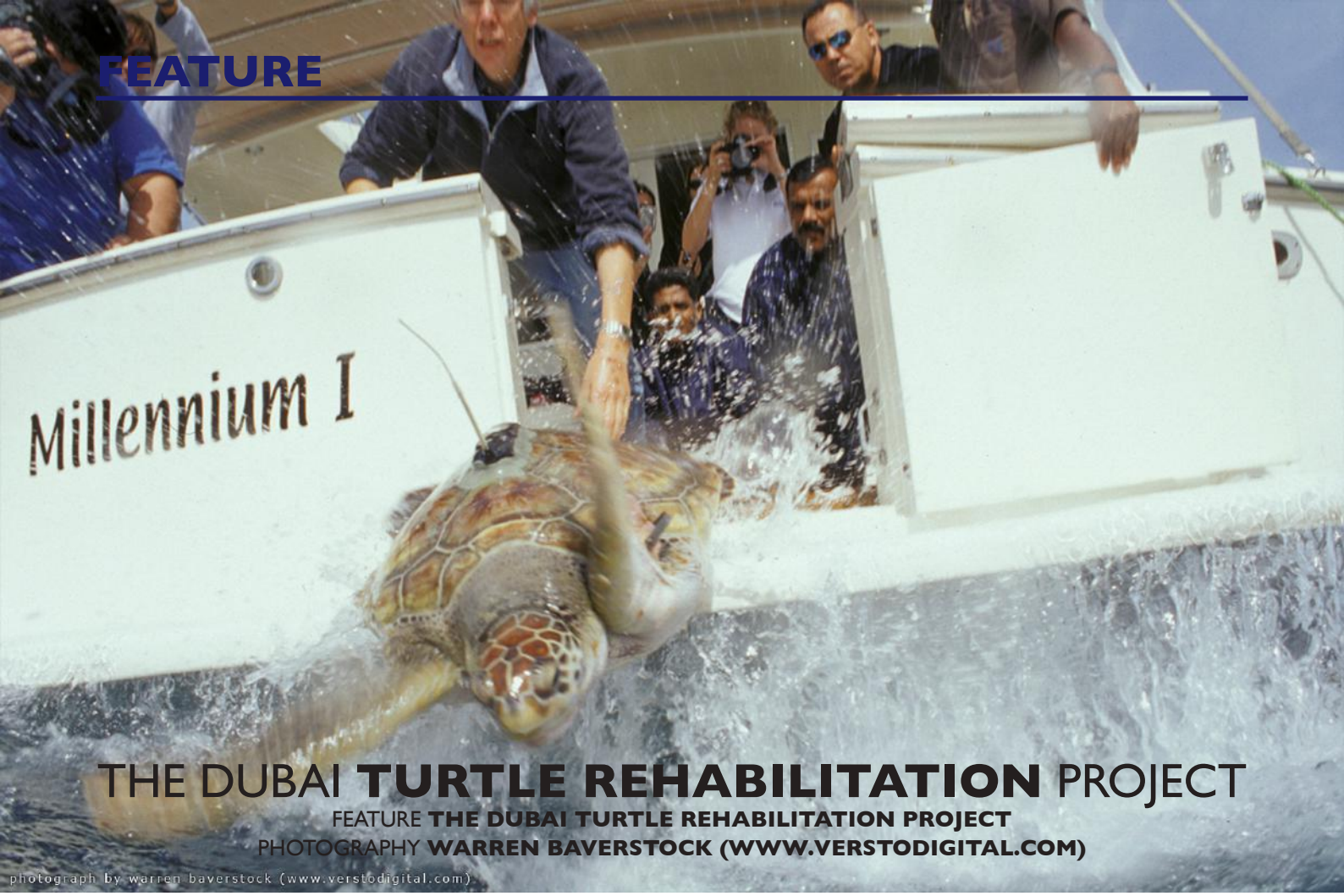
2 Malaquias, M.A.E. and Reid, D.G. 2008. Systematic revision of the living species of Bullidae (Mollusca: Gastropoda: Cephalaspidea), with a molecular phylogenetic analysis. Zool. Jour. Linnean Soc. 153: 453-543.

Note: This report was first published in Vol. 17 of Tribulus, the journal of the Emirates Natural History Group, Abu Dhabi.



THE DUBAI **TURTLE REHABILITATION** PROJECT

FEATURE **THE DUBAI TURTLE REHABILITATION PROJECT**
PHOTOGRAPHY **WARREN BAVERSTOCK (WWW.VERSTODIGITAL.COM)**

photograph by warren baverstock (www.verstodigital.com)

For three months of the last winter in Dubai, over 90 sick or injured marine turtles were brought into the Dubai Turtle Rehabilitation Project (DTRP). The majority of these animals were juvenile critically endangered Hawksbill turtles (*Eretmochelys imbricata*), which according to the IUCN have seen around an 87% drop in the global number of nesting females in the last three generations, a very startling statistic. The main causes for the decline in population of this species are: the tortoiseshell trade, Asian meat trade, egg collection, destruction of foraging and nesting habitats and oil pollution. Populations are declining rapidly all over the world, therefore, the main goal of the rehabilitation project is to return sick animals to full health, and release them back to their environment.

The turtles wash up on the shore along the UAE Gulf coastline in the winter months severely debilitated which is usually manifested by an abnormally heavy epibiont coverage including barnacles of varying species and a large variety of bivalves, worms and anemones. The types of debilitation are varied, some are injuries caused by entanglement or ingestion of plastic waste discarded into the marine environment, however the majority are sick rather than injured. Turtles are reptiles and as such are cold-blooded, gaining their body heat from the surrounding environment. Young turtles in particular are therefore negatively affected by cold sea temperatures experienced within this region during the months of December, January and February, which is when the majority of sick turtles are found.

The DTRP is currently the only project of its kind in the Middle East and Red Sea region. Although it had been running for some years, it was started in its current form by Dubai's Wildlife Protection Office (WPO) in 2004, in collaboration with the Jumeirah Group, Al Wasl Veterinary Clinic and the Central Veterinary Research Laboratory (CVRL). 2004 saw the construction of a pre-released turtle holding pen in the waterways of the Madinat Jumeirah, outside the Mina A'Salam hotel. This pen provided a very important step forward, the first public interface to the project, which had previously been behind closed doors. In 2004 Burj Al Arab's aquarium team became more involved with the utilization of the fish quarantine facilities at the hotel as an intensive care recovery facility.

Turtles are found by members of the public on the beaches of Dubai but the majority of the turtles that were brought in this season were found by the Emirates Marine Environmental Group (EMEG). In fact they found over 40 turtles this season alone. EMEG staff patrol the shores of the Palm Jebel Ali, Dubai Waterfront and Ghantoot Reserve daily looking for stranded turtles. This has been a huge contributing factor in the number of turtles rescued in Dubai. In comparison, the 2008 season produced only 25 turtles brought into the project. Turtle strandings are not new to Dubai and Kevin Hyland who has been here for over 27 years has seen this happen on an 'annual basis', however, the current number of turtles being received is unprecedented. Whether or not this increase is due to increased public awareness of the project and the hard work of EMEG or some other contributing factor is unknown.

Without exception, all of the turtles found and taken in by the Dubai Turtle Rehabilitation Project were at one stage very sick or injured. Once the turtles are received, they are then referred to veterinarian Dr Mirjam Hampel and the team at Al Wasl Veterinary Clinic. Over the years a practical treatment protocol has been developed, and is still evolving. This can at times include fresh water baths and where necessary vitamin or antibiotic treatments. Each turtle receives a microchip, to allow individual case histories to be monitored. Then, the turtles are returned to the Burj Al Arab Aquarium, and other facilities, where the team can closely monitor their recovery. The great advantage of using the indoor controlled-temperature quarantine facility is that the temperature can be up to 10°C higher than ambient, giving a much-needed boost to the debilitated turtle's metabolism. During the recovery process, the animals are subjected to ongoing veterinary examination and monitoring, with appropriate medication or surgery being administered as necessary. Once the team is satisfied with the progress and condition of the turtles, they are then transferred to the Mina A'Salam turtle enclosure. Animals that are already too weak to benefit from the treatment regime and succumb to their illnesses are sent to the CVRL where a full post-mortem examination is carried out to determine the cause of death.

The large enclosure at Mina A'Salam allows the team to monitor the final stages of rehabilitation and feeding behaviour before the turtles are released back into UAE territorial waters. This year, DTRP has released 42 rehabilitated turtles so far back into the waters off the coast of Dubai. The turtles are taken over 15km offshore before they are released to avoid areas with construction and heavy boat traffic. Recently, Hatteras have kindly offered their amazing boats, staff and time to transport the turtles offshore. More recently the DTRP released one of the Hawksbills brought in by EMEG at their World Environment Day event held at their Ghantoot reserve. The event was attended by 200 people who clapped and cheered as the turtle returned to the sea.

Every turtle released bears left and right individual titanium flipper tags and code numbers, inscribed with the contact address of the Wildlife Protection Office. This allows us to assess the success or otherwise of our releases. To date we have not had any dead turtles returned! It is one of the project's goals to release as many of our turtles as practical with satellite transmitters. To date, two turtles have been fitted with satellite transmitters to enable us to track their journey. Both transmitters were sponsored by Jumeirah Group and more tagging is planned. One of the turtles that was tagged and released on February 14, 2008 named 'Dibba', due to the location where she was found, made the second longest tracked recording of a Green Turtle (Chelonia mydas). She travelled an amazing 8600km and was the first example of a marine turtle migrating from the Middle East to South East Asia where her last location was recorded off the coast of Thailand. Unfortunately transmissions are governed by the battery life of the transmitter and Dibba stopped transmitting on November 01, 2008. Recently there have been a couple of further transmissions but not strong enough to get a location, but at least Dibba is still out there. Further tracking is important for us to build a picture of where the turtles that are found in the waters of the Emirates, travel to reach their feeding, breeding and nesting grounds as without protection of all of these sites, the turtle population will surely decline further. All of the transmitter data is publicly available via **wwwseaturtle.org** which provides a powerful educational tool, made free by the project to all interested.

Whilst the turtles are held in the outdoor enclosure at Mina A'Salam, they can help to educate others. There are some turtles that the project has retained on the grounds that they are unlikely to survive in the wild, these animals suffer with varying disorders such as neurological problems, missing limbs and blindness to name a few. These individuals provide a stark illustration of why we should not use the oceans as a dumping ground for our refuse. During the 2008/09 year over 1000 students from varying schools in Dubai attended educational talks from the Burj Al Arab aquarium team and hosted by Al Muna restaurant at Mina A' Salam. During these talks, the students are taught about turtle biology and ecology specific to the Gulf region and how they can help these amazing animals. They are also given the opportunity to feed and interact with the animals to try and encourage future turtle conservationists. At the moment there are two of the largest turtles in the enclosure ever to be brought into the project weighing in at 106kg and 150kg, definitely a sight worth seeing. These turtles were brought into us this winter severely debilitated and very close to death but with a little more time will hopefully be fit enough to be returned to the wild.

Madinat Jumeirah's waterway enclosure, located outside Al Muna restaurant at Mina A'Salam hotel is open to the general public to see at any time. Every Friday at 13:00pm, a member of the aquarium team will be there to feed the turtles and answer any questions. If you find a stranded turtle or are interested in our educational programme, you can contact the Burj Al Arab's aquarium team on **04 301 7198** or e-mail us at **baaaquarium@jumeirah.com**.

THE WHALE SHARK

FEATURE AND PHOTOGRAPHY **JEFFREY CATANJAL**

Whale Sharks are the world's largest fish and can commonly be found in the waters of Musandam, near Lima Rock and Octopus Rock during the months of June, July and August. The Whale Shark is a fascinating creature to behold. With no known predators (except humans) and a completely peaceful nature they are huge, harmless and sublime.

The whale shark is the largest living fish. It can reach a maximum of 20 metres in length. The smallest free-living individuals are from 55cm (21.7 inches) long. Sexual maturity in both sexes may not occur until the sharks are over 9m in length. Age estimates for whale sharks are as high as 70 years, but no one really knows how long this species lives for.

Whale sharks feed on a wide variety of planktonic (microscopic) and nektonic (larger free-swimming) prey, such as small crustaceans, schooling fishes, and occasionally on juvenile tuna and squids. Also, phytoplankton (microscopic plants) and macroalgae (larger plants) may form a component of the diet. Unlike most plankton feeding vertebrates, the whale shark does not depend on slow forward motion to operate its filtration mechanism. Rather, it relies on a versatile suction filter-feeding method, which enables it to draw water into the mouth at higher velocities than these dynamic filter-feeders, like the basking shark. This enables the whale shark to capture larger more active nektonic prey as well as zooplankton aggregations. Therefore, the whale shark may be more dependent on dense aggregations of prey organisms. The denser filter screens of this shark act as more efficient filters for short suction intakes, in contrast to the flow through systems of basking shark. Whale sharks are always seen feeding passively in a vertical or near vertical position with the head at or near the surface

The whale shark feeds actively by opening its mouth, distending the jaws and sucking. Than it closes its mouth and the water flow out its gills. During the slight delay between closing the mouth and opening the gill flaps, plankton may be trapped against the dermal denticles lining the gill plates and pharynx. The fine sieve-like apparatus, a unique modification of the gill rakers, forms an obstruction to the passage of anything but fluid, retaining all organisms above 2 to 3mm in diameter. Practically nothing but water goes through this sieve. Individuals have also been observed coughing, a mechanism that is thought to be employed to clear or flush the gill rakers of accumulated food particles. Whale sharks move their heads from side to side, vacuuming in seawater rich in plankton, or aggressively cut swathes through schools of prey. Groups of individuals have been observed feeding at dusk or after dark. The density of plankton probably is sensed by the well-developed nostrils, located on either side of the upper jaw, on the leading edge of the terminal mouth. The frequent turns may keep the whale sharks in the denser parts of the plankton patches, searching and scanning when an olfactory cue weakens on one side or the other. The whale shark's small eyes are located back on the sides of the head. Because of this, vision may play a much smaller role than olfaction in directing the head turns during surface feeding.

The Economica importance of a single Whale Shark in a predictable location runs into the hundreds of thousands of dollars. Rather than subsidizing the entrapment and display these very poorly understood creatures, why not try to see them in their natural environment. Your money assists the local economy, you learn more about the species and you actually help science!

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DIVERS FOR THE **SEYCHELLES ENVIRONMENT**

FEATURE **GLYNIS SANDERS, PADI MASTER INSTRUCTOR**

News about the environment, climate change and the fate of our Coral Reefs and Natural World surrounds us every day. When we turn on our TV or radio we hear that we are individually responsible for the fate of the World by the extent of our Carbon foot print, our use of non bio-degradable products and the improper disposal of all our rubbish. How can one person make such an impact on our world?…just multiply it by millions of people and the effect is truly devastating. So how can one person make a difference…just multiply by as many caring people as you can and in the word of President Obama, "YES WE CAN".

It then comes as no surprise that certified divers and snorkellers as well as those currently thinking of getting involved in the sport also have the environment on their mind. At the Underwater Centre – Dive Seychelles staff are encouraging all of our visitors to get involved in a variety of ways. Here are just a few.

Luckily for us there is very little rubbish found on our dives sites but even so we add the "JUST ONE PIECE" into our dive briefing. The "JUST ONE PIECE" is a request for all divers and snorkellers to pick up just one piece of litter they come across on every trip they do…a bottle, plastic bag or a plastic straw, anything that does not belong at the bottom of the sea. This is such an easy thing to do and everyone can make a difference. This is a continuous PADI Project aware underwater clean up… why just do your clean up events once or twice a year? Logging all the rubbish collected onto our Data Base is vital as this information, joined with other caring Dive Facilities from around the world helps to support policy changes at a national an international level. Our hatred of all things plastic especially plastic bags is now an adopted practice in Seychelles. The Department of Environment has started the "Bag for Life" campaign and retail stores are encouraged to charge for plastic bag use. Too often we see plastic bags carelessly discarded and later floating in the sea were they are mistaken as food and eaten by both turtles and whales, often causing death.

Assisting our Dive Centre visitors are the many PADI conservation programs and staff at the Underwater Centre are constantly giving advice about proper weighting and placement of weights to get ideal buoyancy control. Once this skill is mastered, divers are encouraged to come to a hovering position just above the coral reef and stop themselves from descending down onto the coral base. Fin action is then kept away from the coral and disturbance of sand that would later lie on top of the coral is kept to a minimum. It is surprising that divers never look behind them…they are so busy looking at the variety of marine life in front of them but good advice is to turn around and check that your fins are not causing a sand trail of destruction! Peak Performance Buoyancy is a must for all caring divers and with the increase in underwater digital camera use it seems that nearly all divers are underwater photographers…so all divers need to get their buoyancy in check so that the "perfect shot" ensures no damage to the surrounding reef. The "look but do not touch" policy.

Knowing your reef corals and fish life is also a conservation measure. Healthy reef structures support key species of fish and corals and if they are absent then something is wrong. Several Underwater Centre instructors hold Specialty training certificates in coral and fish ID and incorporate an awareness program into dive packages and student training courses with PADI certification. Keeping a Data base of sightings allows us to advise the Marine Conservation Society, Seychelles (MCSS) of any problems that may be developing. Recently a regular monitoring program has been started for the Crown of Thorns starfish, the Hawksbill and Green Turtle, the Skunk Clown Fish and the Seychelles Anemonefish (AMPHIPRION FUSCOCAUDATUS) and all caring divers and snorkellers are asked to get involved.

Long term Environmental protection starts with the children and a new outreach program has been started with staff who recently visited a pre-school showing 4-5 year olds images of whales, dolphins, sharks and divers. Getting involved with whale songs and ID games has been rewarded with amazing works of art for our "Children's Wall of Fame". Upper school activities have included weekly visits to the Dive Centre where snorkeling and dive classes have marine awareness teaching sessions and expeditions to the reefs for coral and fish surveys. Future activities will include beach clean ups, beach fauna and flora identification and boat trips to watch whale sharks with the Marine Conservation Society, Seychelles (MCSS) Research team during the Whale Shark season of September and October.

When visiting Seychelles the whole family can get involved with various Family Packages including accommodation and diving/ snorkeling activities. Make your Carbon foot print count…one concerned person at a time! You do make a difference.

Beau Vallon Beach accommodation packages available via the Underwater Centre from €647 per person.

- return airport transfers in air conditioned coach
- 5 nights sharing a twin or double room on bed and breakfast
- 10 short distance boat dives with tank and weight rental
- Peak Performance Buoyancy clinic
- Marine Awareness clinic

Optional extras:

- family room plan
- child care facilities
- equipment rental
- whale shark snorkeling encounters
- snorkeling trips
- children's diving and snorkeling activities
- PADI courses, Underwater Digital Photo, Coral and Fish ID, Peak Performance Buoyancy

CONTACT DETAILS

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WHEN THERE IS A WILL **THERE IS A WAY**

FEATURE **NOOR KHALIFA BAKHIT ALFALASI**

Scuba diving; whoever said that it is a sport that a Muslim woman cannot participate in because of her Hijab, I tell them I prove them wrong. Contrary to what is perceived, the Hijab is not an obstacle in life, rather as long as the woman covers her hair and body and dresses modestly then she can participate in sports such as Scuba Diving, as it is encouraged in Islam to participate in activities as stated in a hadith "Teach them swimming, shooting, and riding." Additionally, God has encouraged us in various versus in the Quran to contemplate in His creations. Thus, since I have always loved the sea, and find the sea world an extraordinary one, I have decided to take it upon myself to explore that part of the earth, starting with attaining a scuba diving license.

Therefore, with will and encouragement and sponsorship from Emirates Diving Association, I enrolled in scuba diving lessons at Al Boom Diving center to do my open water course.

On the day of the classes, I wore a swim suit a size bigger than mine covering the whole body with board shorts over the top and a scuba hood to cover my hair. Yes, it was difficult to start with and was a bit uncomfortable at first since no one else was covered as much as I was, and I felt heavy in the water and the sun made it extra hot but just knowing that I would soon be under the water breathing and exploring marine life kept me going and made me forget what people would think of me. With time, I have gotten used to it.

Luckily for me I had my family's support which made me even more enthusiastic and determined to obtain my open water diving license so I could make them proud and do something others thought was not possible. Finding encouragement from EDA, and Mr. Ibrahim Al-Zu'bi also made what seemed impossible, possible.

So here I am today, with my diving license standing proud, and here to tell all the women out there who wish to dive or enter any sport do not let the hijab stop you for it is not an obstacle in life, rather attain the standards and use it to your benefit and you can achieve the impossible. "When there is a will, there is a way".

A final thanks to my family, Emirates Diving Association and Ibrahim Al-Zu'bi!

Name: Noor Khalifa Bakhit Al Falasi
Age: 19
Nationality: UAE
University: Zayed University – Health Science
Hobbies/Interests: Animals, adventures, Antarctica, environment, sports, airplanes
Future goals: the moon

2nd MEDITERRANEAN FREEDIVING MEETING AND COMPETITION 2009: GETTING DEEPER

FEATURE **ADEL ABU HALIQA** PHOTOGRAPHY **FREDERIC BUYLE**

After surfacing from the first UAE national record dive in history

Freediving is holding ones breath while diving underwater (without SCUBA apparatus). If you have read the EDA magazine past issues, you may have already seen several articles about freediving.

We have explained some terms in the previous EDA Magazine issues, here are some more terms to remember when reading about freediving:

Constant Weight Freediving (CWT): diving with a fixed weight that the freediver has to come back to the surface with.

Constant No-Fins (CNF): same as above but the freediver swims without fins, using hands and legs only without pulling on the line.

Free Immersion (FIM): it is constant weight as well, the diver here pulls with his hands up and down on the line, fins are not allowed here either.

Total Lung Capacity (TLC): the total amount of air the lungs can hold on a full inhalation (without packing air by force).

Packing: A technique of forcing more air into the lungs than what the lungs usually allow, could lead to lung injury if done incorrectly or vigorously.

Lung Residual Volume (RV): the minimum amount of air (in liters) the lungs can get to either by exhaling all the air possible or by diving to depths where the amount of air in the lungs is equal in volume to the minimum. Usually equal to 20-25% of total lung capacity (TLC).

Lung Squeeze: a lung injury that usually occurs when the diver exceeds the depth of RV without proper training and conditioning, usually in rough sea conditions, cold water, inflexible chest and rapid increase in overall depths.

Fluid Goggles: special freediving goggles that are filled with water so don't require equalizing. They are used in combination with freediving nose clips.

Freediving Nose Clips: specially designed nose clips unlike the swimming versions, these are tightened on the nostrils so that a diver can equalize his ears without the need to use his hands anymore (hands-free).

Last year I managed to set three national records for the UAE in freediving in the pool disciplines in Eindhoven, the next natural step was to go for depth!

I registered in the 2nd Mediterranean Freediving Competition in Sougia – Crete in Greece several months in advance, so I had enough time to practice, or at least that's what I thought at the time. It turned out untrue as the Abu Dhabi freediving team were struggling to successfully get some deep dives due mainly to the sea conditions. It did not allow us to go in the open blue in order to get enough depth. I, myself decided that anything less than 40 meters was not good enough to set as a national record for the UAE (in the constant weight with fins discipline at least). Time was passing by and the date of the competition was approaching without being able to get past 28 meters of depth!

Two weeks prior to leaving for the competition,

Alex and I (Alex is a talented freediver in our team who has been training consistently with me for the past year) managed to go out in a trial to get some serious depth, unfortunately as usual sea conditions were rough, big waves, strong currents and very hot weather both above and below water. Water temperatures were 3°C for the first 10 meters before it dropped to about 26°C, accordingly we couldn't wear wetsuits and so we lost the advantage of being positively buoyant in the first 15 meters. We dropped the training line at the depth of 40 meters, but I managed to do only 32 meters with considerable difficulty. Alex managed to do 35 meters on that day. That's the depth I carried with me to Sougia, I still had one more week of training in Sougia before the start of the competition.

Greece is a beautiful country. I've been there for two years in raw freediving, but I got caught up in the spontaneous natural beauty of Sougia, its mountains and beaches alike. I don't have to mention food here now do I?

We started training straight away. The sea conditions were relatively rough during the training week, I had to try my chance with the fluid goggles and the nose clip, that would make life easier for me with my dives, especially for the constant no-fins and the free immersion as in both cases I would need to use my hands extensively by doing the frog style swim in the CNF and pulling with both hands on the line in the FIM. Since I hadn't done any training in the UAE with that equipment (the equipment's arrival was delayed from the dealers) so I had difficulty getting used to them fast enough, accordingly I hadn't dived enough depth during the training week. The deepest dive was 35 meters CWT with bi-fins and as soon as I surfaced from that dive William Winram, Canada's national champion looked at me and said: "Adel, use a monofin", I had my monofin with me, I set the national record in Dynamic with it, but I had never used it for depth diving before. So that was the final decision: I will dive with the monofin and with my normal mask, I will use my mask even in the CNF and FIM dives, no more nose clips and fluid goggles!

In depth disciplines, the athlete has to announce the depth he/she will do and the line will be set to that depth, unlike pool disciplines where you cannot change it. You cannot go deeper and if you go shallower you get penalties and lose points, further more, national records have to be perfect, no penalty points allowed, no messing with the surface protocol, the white tag at the bottom of the diving line has to be retrieved by the athlete as well. I simply had to have a white card from the judge, no other colors was allowed. I thought long about what depth I should announce for the first attempt, I finally chose to do CWT for 35 meters. I wanted to have an easy first dive and that was my personal best performance anyway.

On the next day, the sea conditions were good except for a strong current. I was about to do my first ever official attempt in depth disciplines, but I felt exceptionally good. I decided to go to the diving line only two minutes to the official top. I did my dive with the monofin and what a feeling when I pulled the tag with my hand and started finning back toward the surface. What a feeling when I got my first ever white card at the surface and my first ever national record, the first national record in CWT for the UAE in history.

On the second day I announced 43 meters, yes, 8 meters more right away. According to all the calculations and tests that I had done beforehand, I should easily be able to do this dive. I had to decide again as the risk I could face was lung squeeze since I had't done that depth before or any depth close to it, but the PFT tests I had done in the clinic in Abu Dhabi a year before had showed that I could easily get down to 40 meters without the risk of lung squeeze. The sea conditions were perfect, no currents and the water was calm, I did a relatively easy dive and broke the first record, now the new national record is 43 meters in CWT.

I managed to have one day off and was able to relax a little and prepare for the next competition dive. This time I was going for the CNF, especially that the weather forecast said that the sea would be really calm and a better chance there would be no currents. These are the best conditions for doing the most difficult and physically demanding discipline, the constant no-fins. I have never done a CNF real dive, only a few shallow training dives, what should I choose? I decided to go for 21 meters.

Next day the weather was as expected, feeling perfectly good, I went to the diving line about 3 minutes before the official top. As I was breathing I looked up at the safety diver and asked him, "Could you please meet me between 25 and 30 meters?" a loud laugh came from the judges and safety divers, I needed that laugh. I did the dive and didn't get to a free fall zone before I spotted the transparent plate with the tags attached. I picked one of them up and headed back to the surface, kicking hard again and again. I was talking to myself, "This is seriously demanding, it's really different than all other disciplines!", I surfaced to get a new national record in the CNF with 21 meters.

I still have two more diving days (competition-wise). I thought I could do one FIM dive and then reserve the last dive for one more deep CWT dive, maybe down to 51 meters this time ! But we have been diving almost daily, training and competing for the past 10 days, doing a new personal best every time, this is not a regular freediving routine. I felt wrecked, I had to decide if I should carry on and go for it the next day or take one rest day, if diving tomorrow is a bad choice I might risk losing the dive and getting seriously tired. It could ruin my chances to participate on the final day as well, so the decision was to skip the fourth attempt and rest for one more dive, that has to be FIM.

I announced 37 meters in FIM, that which I have also never experienced before. I had to do something about my technique of pulling myself down as I am very slow using both hands AND equalizing with them at the same time. I visualized during the day-before to find a new way to do that and more importantly, a new speed.

On the last competition day, the sea was rough and with strong currents. Thank God I could pull on the line that day! I chose to put the lanyard around my feet this time (I prefer to attach the lanyard to a part that is not required for movement, a part that is passive, here it is the legs, in CNF it's the waist and in CWT it's the hands), I went through the FIM experience, different, very nice feelings, especially on the way back when I didn't have to get busy with equalizing. I got a white card and a new national record, 4 official dives, 4 tags, 4 white cards and 4 national records!

My overall rank in the competition was 7th, not bad for a first timer who hadn't had the chance to do deep dive training before the competition. The deepest successful dive in the competition was done by Danish Jesper Stechmann, down to 91 meters CWT! That was a new national record for Denmark, congratulations! There were many other excellent dives and great national records realized by other freedivers in the 2nd Mediterranean Freediving Meeting and Competition. It is the most well organized depth freediving competition according to the experienced athletes of the competition, even without their views, I found the competition excellently organized and very comfortable to say the least.

I would like to extend my thanks to many people, firstly to my family who supported my madness throughout the year, especially my father who introduced me to freediving at the age of 9 and kept it a dream in my heart till the right opportunity arose. To my freediving instructors all around the world, Emma Farrell, and Simon Reid, David King and Richard Wonka, to my yoga instructor Mr. Palash, to my swimming instructor Mr. Bashir, to my dear freediving team mates Alex, Sara, Nikki, Arnaud, Abdullah, Khalid, Fahad, Dawid. Special thanks to EDA and EDA family members for their continuous support. Many thanks to Stavros Kastrinakis, the dynamo of the competition and all the team, the judges and safety team, and especially the Judge, the Yoga instructor, the physician and volunteer cook Panagiota!

Keep checking every issue of the EDA magazine, more articles about freediving will be published with more in-depth knowledge about this amazing sport.

SOME USEFUL LINKS:

http://www.freediving-club.gr/index.htm
http://www.emiratesdiving.com
http://www.aida-internatianal.org
http://www.fururapnea.com
http://www.emma-freediver.co.uk
http://www.divasindubai.com
http://www.deeperblue.com

Picking the tag from the bottom plate in Constant N-Fin at 21 meter

MMS MARINE SCIENCE STATION, JORDAN

FEATURE AND PHOTOGRAPHY **AQABA SPECIAL ECONOMIC ZONE AUTHORITY (ASEZA)**

The Marine Science Station (MSS) was founded in the mid 1970s. The main objectives of establishing the MSS were to create a marine research facility for scientists and post graduate students of the two Jordanian Universities that existed at that time; the University of Jordan http://www.ju.edu.jo/ and Yarmouk University http://www.yu.edu.jo/, and to provide a haven for international scientists interested in studying the tropical-subtropical marine ecosystem. The Gulf of Aqaba with its unique characteristics provides an ideal oceanic model for such studies.

The present MSS campus is located at the beautiful eastern coast of the northernmost end of the Gulf of Aqaba, about 10km south of Aqaba Town. The public aquarium of the station attracts thousand of school students, tourists, official visiting groups and Jordanian citizens.

Responsibilities of the MSS towards the two mother Universities, the local society and human knowledge have increased significantly with time. Research types and interest at the MSS have also developed remarkably. At the beginning, when the MSS was newly established, more monitoring, survey work and basic research took place. This at that time was both useful and necessary. The main outcome was defining baseline characteristics of the Jordanian coast of the Gulf of Aqaba and on a broader outline of the entire Gulf. In a second phase of progress the MSS concentrated on some applied aspects of coastal research. Development of mariculture technology of some economically valuable species, the suitability of these species to the conditions of the Gulf of Aqaba and the environmental constraints were the main focus. The main outcome of this line of research was that although some species proved suitable for mariculture in the Gulf of Aqaba at a commercial scale, the environmental threat of such a venture would make it unfavorable. Consequently Jordan has decided strategically not to permit floating cage mariculture in Jordanian waters.

More recently the MSS has focused on ecosystem studies, particularly the coral reef ecosystem, to provide an integrated understanding of the ecosystem functioning that enables adopting suitable management schemes to optimize the benefits of the scares that Jordanian coastal resources have and yet preserve them for the future generations as a part of our valuable human heritage.

One of the most important facilities at MSS is the Marine Aquarium. It was established to demonstrate the beauty, uniqueness and importance of the coral reef ecosystem of the Gulf of Aqaba. The marine Aquarium was found in 1981 during the same year when the MSS started to work. The main objectives behind establishing this marine aquarium were to:

- Exhibit the outstanding beauty of the underwater life in the Gulf of Aqaba to the public.
- Spread public awareness among visitors about the marine aquarium showing the importance of the marine life and showing how sensitive the reef organisms are and introduce the public to the dangerous species living in the sea.
- Provide education and public awareness.
- Support teaching and research at university levels.

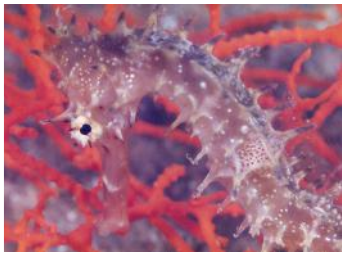
All the species exhibited to the public in the Marine Aquarium are from the Gulf of Aqaba, Jordan and none were imported from other countries, therefore the Marine Aquarium is representing a real picture of life in the Gulf of Aqaba, Red Sea.

The Aquarium has 20 flow through aquariums of about $2m^3$ each and they contain hundreds of species representing the major coral reef organisms. The number of aquariums is projected to increase this year by 6 more. A simulation of coral reefs in the Gulf of Aqaba is established in a $40m^3$ roofless concrete tank. In addition to this, many marine fossils and mummified organisms are presented to the public in the marine aquarium. The exhibitions are supported by a number of informative posters and photos hung around in the aquarium building. In addition to this, publications and brochures are sold at the ticket booth.

This unique tourist attraction is busy all year round. The number of visitors in the last two years only, exceeded 100,000 visitors. University and school students comprise about 60% of the total number of the Aquarium visitors.

The Aquarium opens:
Sun-Thu 7:30 – 16:00
Fri and Sat 7:30 – 17:00
http://www.visitjordan.com



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DIGITAL ONLINE
2009 PHOTO COMPETITION RESULTS

FEATURE **REEMA AL ABBAS AND MARCELO MARIOZI**

It was with immense pleasure that EDA announced the results for the first Underwater Photography Contest. The results ceremony was held on July 5th in the packed conference room at the Kempinsky Hotel – Mall of the Emirates in Dubai. The audience was formed by EDA members, contest participants and jury members, dive industry members from operators and dive shops, general photography enthusiasts and industry members, who enjoyed a photographic oriented evening with snacks and an open bar.

The event began at 7.30pm in the foyer where everyone gathered for a small bite to eat and a chat before moving into the conference room. Almost 100 people were in attendance. The Ceremony itself was opened by our Editor and EDA's Environment Advisor Ibrahim Al Zu'bi, followed by our event opener Mr. Gordon Smith. Gordon is a very experienced underwater photographer, and having lived in Jeddah for a few years presented us with an amazing collection of images from one of the best dive destinations in the world.

With the responsibility of following such an array of impressive images, and with the intention of making as much out of the opportunity of having so many people in the room interested in underwater photography, a slide show was presented on "The Importance of Underwater Photography", intended for the general non-divers-no-shooters in the audience, followed by the results of our "Underwater Photography Survey", directed to the industry members present at the show. Marcelo Mariozi, who coordinated the competition, also gave a detailed presentation on underwater photography and his vision for the future of UW photography and upcoming competitions and courses.

Our present jury members, Reema Al-Abbas and Jeff Collett, were awarded gifts for their kind participation and contribution to the event, and the results (can be found on EDA's website) were shown to the general public much to the surprise of the winners present at the event.

In the Fish category, we had Brian Meredith in first place, Adam Skrzypczyk in second and Hussein Mourad in third place. In the Macro category, the order was inverted with Adam in first, Brian in second and Jonathan Clayton in third place. And as expected it was the Wide Angle category that defined the overall winner with Phillipe Lecomte in first, Brian Meredith in second and Jonathan Clayton in third. All category winners received medals for their achievements as the images were presented.

These results, once put together, generated the final competition positions (as you see from the tables). Brian Meredith was our overall winner, Jonathan Clayton followed as runner-up and Adam Skrzypczyk came in third place. Our three competitors were each rewarded with a trophy and the overall winner received a 2-night stay at Le Meridien Al Aqah, second place received vouchers for Scuba Dubai and third place won a Canon A720 compact camera.

It was fantastic to see how this contest created an interest towards UW photography and brought out the creativity in many of our members who had never published their pictures before. The more we dive and the more we take photos, the more we spread awareness of what is in our oceans.

EDA Digital Online 2010 was announced for the continuation of our competition and will open to registration in the first days of January with results around late March. All the details will be announced in the December EDA Magazine.

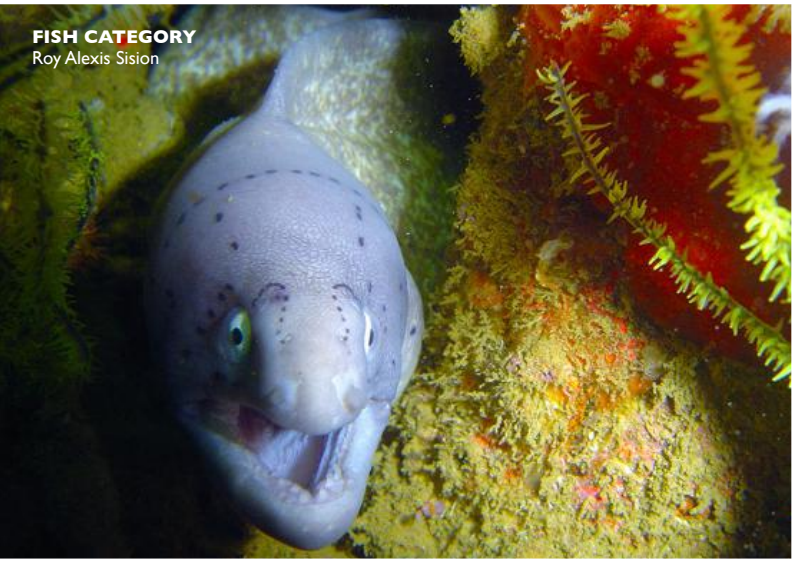
EDA is working hard on this project, and we expect a much greater number of participants next year. This year we had a few people miss the deadline, some people with images not conforming to the regulations and unfortunately no UAE Nationals took part this time round and we want to change that!

FISH		Total
Brian Meredith	1	75
Adam Skrzypczyk	2	64.8
Hussein Mourad	3	62.5
Lee Gibbons	4	62
Jonathan Clayton	5	58.8
Phillipe Lecomte	6	57.5
Peter Reinard Mainka	7	51.7
Joanna Victoria Thornton	8	51.3
Tony Watson	9	47.3
Roy Alexis Sision	10	43.5
Simon Gardener	11	40.8
Mohamad Tantawy	12	38.2
Maral Khaled Shuriqi	13	35
MACRO		**Total**
Adam Skrzypczyk	1	80.7
Brian Meredith	2	75.8
Jonathan Clayton	3	67
Lee Gibbons	4	60.7
Peter Reinard Mainka	5	54.3
Phillipe Lecomte	6	48.2
Hussein Mourad	7	38.3
Tony Watson	8	34.2
Mohamad Tantawy	9	34
Joanna Victoria Thornton	10	31.7
Maral Khaled Shuriqi	11	30.8
WIDE ANGLE		**Total**
Phillipe Lecomte	1	65.8
Brian Meredith	2	62.5
Jonathan Clayton	3	58
Hussein Mourad	4	52.5
Tony Watson	5	52.2
Peter Reinard Mainka	6	51.7
Joanna Victoria Thornton	7	42.5
Adam Skrzypczyk	8	37.8
Mohamad Tantawy	9	36.7
Maral Khaled Shuriqi	10	35.8

EDA DO 2009		F	M	W	TOTAL
Brian Meredith	1	75.0	75.8	62.5	213.3
Jonathan Clayton	2	58.8	67.0	58.0	183.8
Adam Skrzypczyk	3	64.8	80.7	37.8	183.3
Phillipe Lecomte	4	57.5	48.2	65.8	171.5
Peter Reinard Mainka	5	51.7	54.3	51.7	157.7
Hussein Mourad	6	62.5	38.3	52.5	153.3
Tony Watson	7	47.3	34.2	52.2	133.7
Joanna Victoria Thornton	8	51.3	31.7	42.5	125.5
Lee Gibbons	9	62.0	60.7	0.0	122.7
Mohamad Tantawy	10	38.2	34.0	36.7	108.8
Maral Khaled Shuriqi	11	35.0	30.8	35.8	101.7
Roy Alexis Sision	12	43.5	0.0	0.0	43.5
Simon Gardener	13	40.8	0.0	0.0	40.8


FISH CATEGORY
Lee Gibbons


FISH CATEGORY
Phillipe Lecomte


FISH CATEGORY
Roy Alexis Sision


MACRO CATEGORY
Lee Gibbons

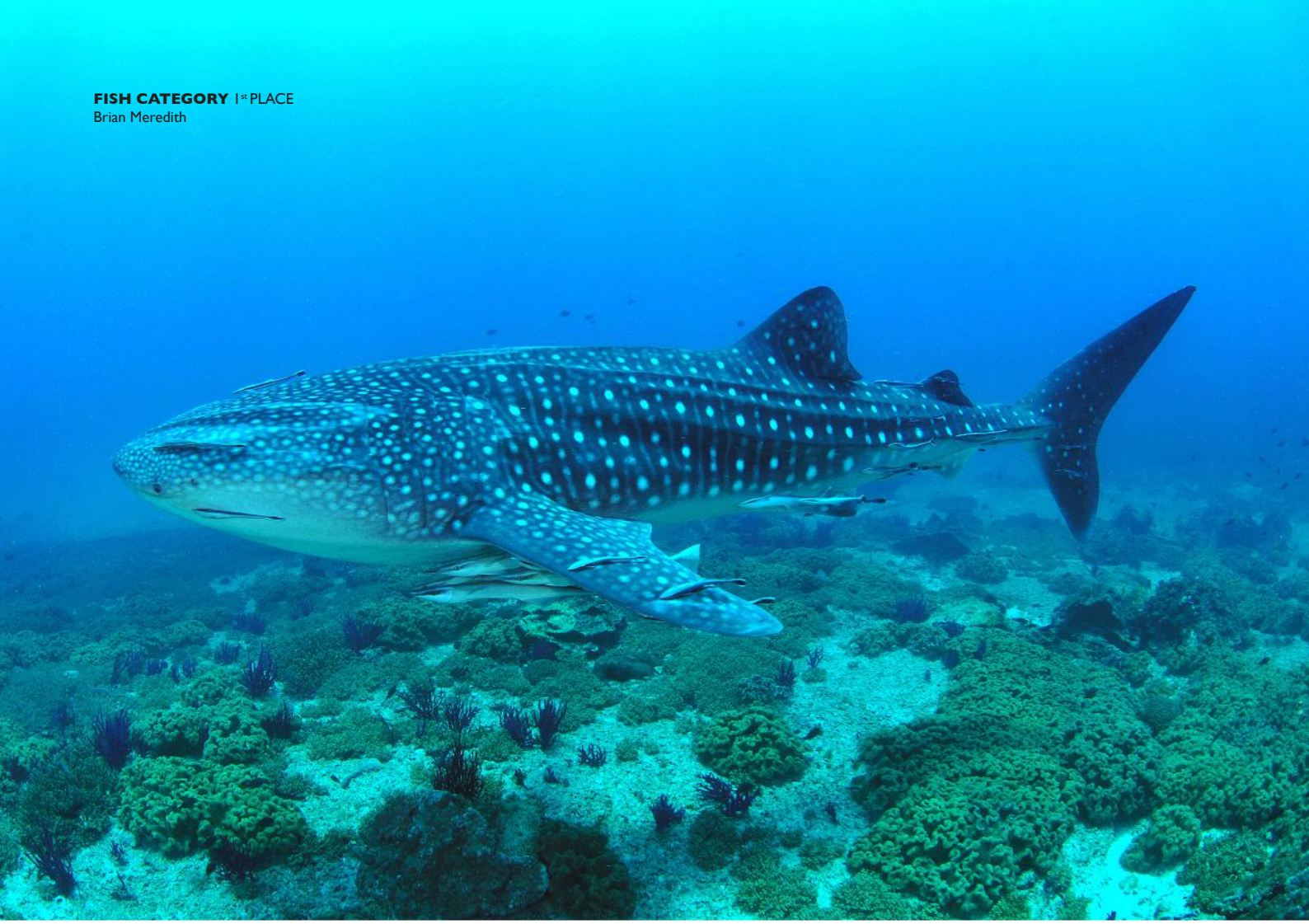

MACRO CATEGORY
Hussein Mourad


MACRO CATEGORY
Mohamad Tantawy


WIDE ANGLE CATEGORY
Hussein Mourad


WIDE ANGLE CATEGORY
Tony Watson

FISH CATEGORY 1st PLACE
Brian Meredith

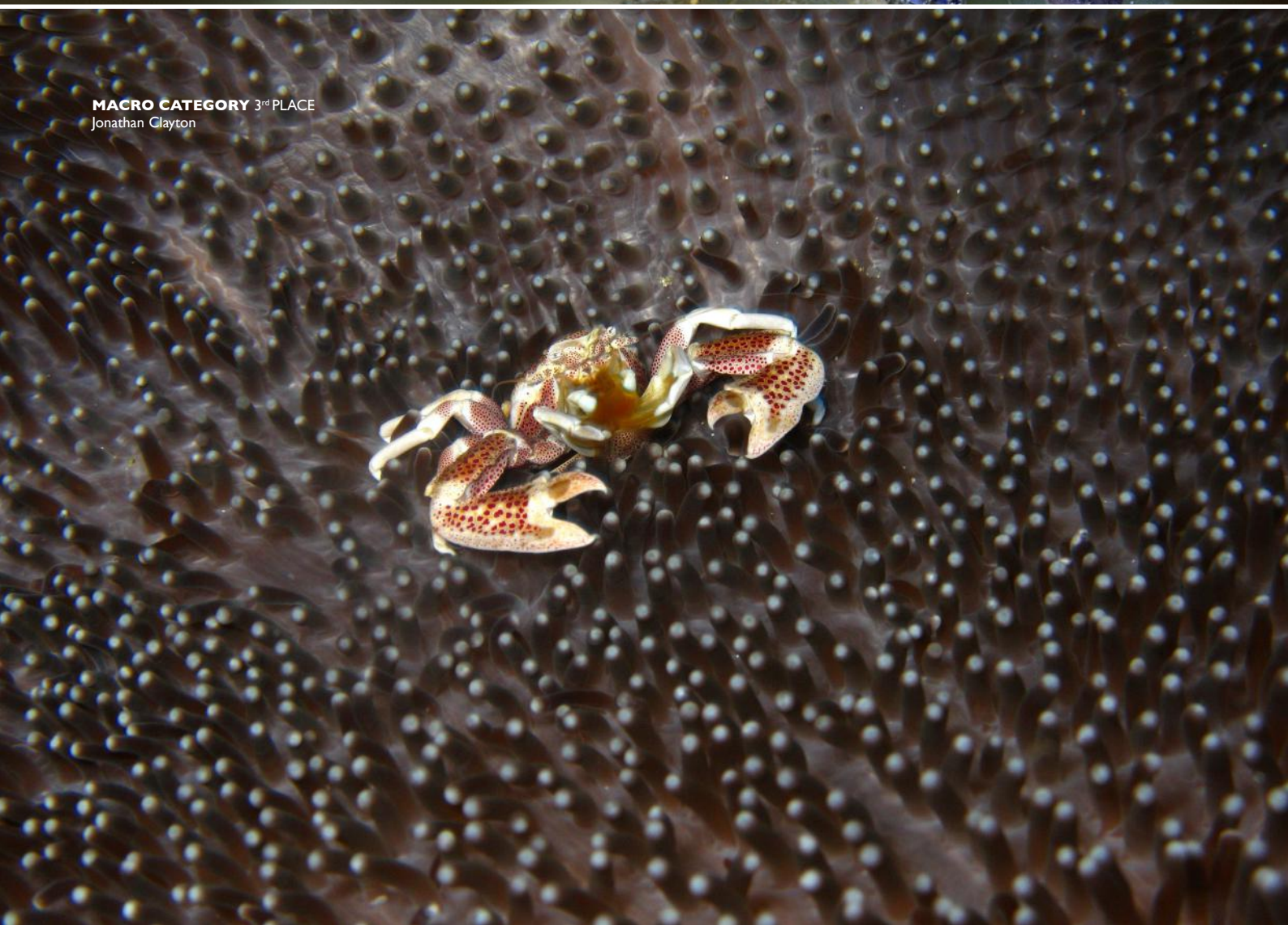


FISH CATEGORY 2nd PLACE
Adam Skrzypczyk

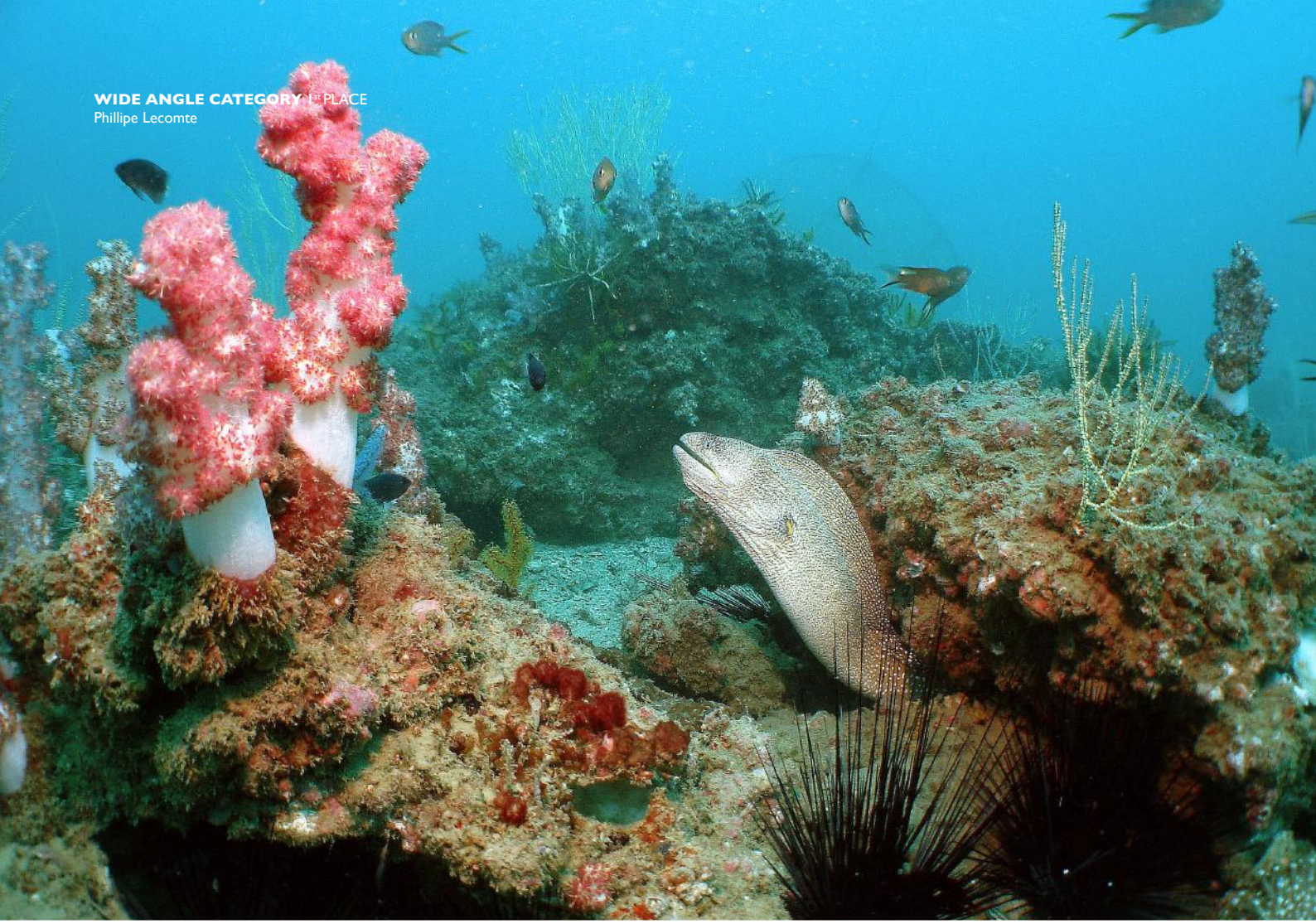
FISH CATEGORY 3rd PLACE
Hussein Mourad

MACRO CATEGORY 1st PLACE
Adam Skrzypczyk

MACRO CATEGORY 2nd PLACE
Brian Meredith



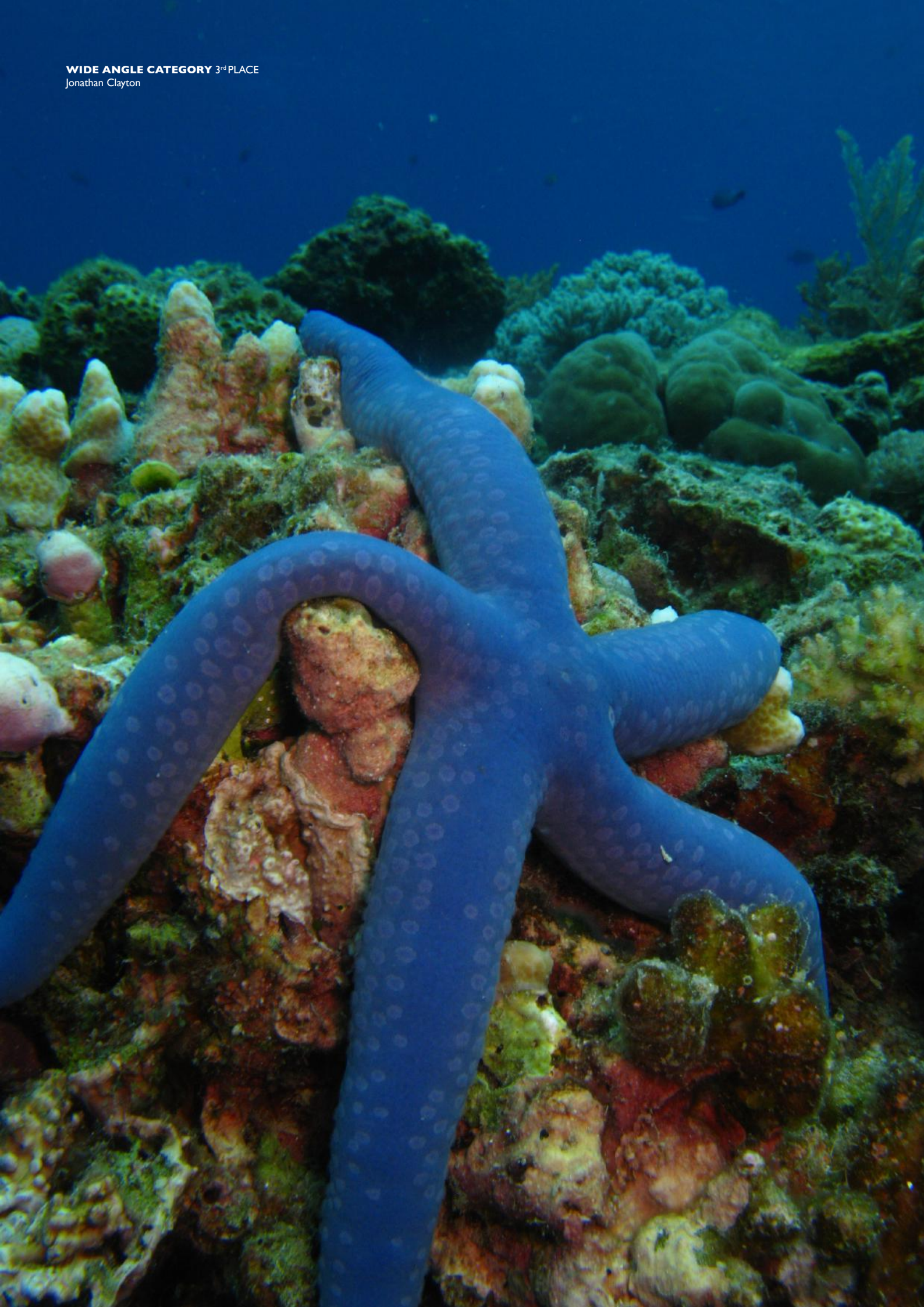
MACRO CATEGORY 3rd PLACE
Jonathan Clayton



WIDE ANGLE CATEGORY 1st PLACE
Phillipe Lecomte

WIDE ANGLE CATEGORY 2nd PLACE
Brian Meredith

WIDE ANGLE CATEGORY 3rd PLACE
Jonathan Clayton



PIC FIX

YOUR IMAGES EXPOSED AND REFLECTED

FEATURE **MARCELO MARIOZI – PHOTO@EMIRATESDIVING.COM**

If you want to get your pics published here and reflected on, send an email to: photo@emiratesdiving.com with your attached picture (2000 x 3000 JPG), with a description of the equipment you used, where you took it and your background in underwater photography.

This month we got an image from Jonathan Clayton. He sent this image to the EDA Digital Online 09 Competition, and later asked if he should have sent another one.

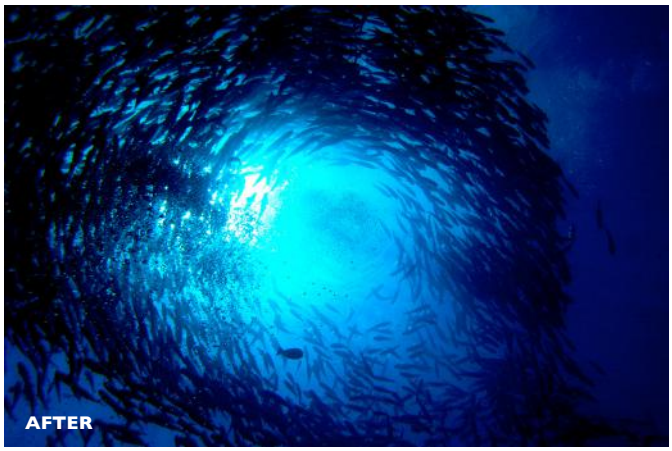
Just to explain a bit: Jonathan, scored a third place in both the Macro and Wide Angle categories, but this image sent to the Fish Category ended up in 5th place and he asked how he could have improved his chances in the event in that category.

The first step necessary when we shoot for a contest is to be able to 'shoot' a good image and the second step necessary is to 'choose' a good image.

This is very subjective, most probably more subjective than shooting itself! And considering the different opinions of different judges this can become very difficult with some images but I will try to shed some light on the subject.

As a judge, the first thing I look for in a photograph is the basics of photography: Focus and Lighting. Again this is very subjective, as an out-of-focus image might reveal an amazing selective focus technique. Or a blown out exposure might reveal a good high-key photograph…but I can search for the 'mistakes' in the form of the 'unpleasant effects' derived from the use or control of both focus and lighting. And if the image shows a clear 'defect' in any of those basic skills it starts my voting process at a lower level than other 'correct' images (if such a thing exists…).

BEFORE



AFTER

Now back to Jonathan's image. Focus wise, it is impeccable, as it shows good skill with very dynamic subjects. Now let's look at the lighting. It is most probably not 'wrong', as he must have shot it at the very light measurement that came straight from his camera, but it looks as though it wasn't adjusted for the situation of shooting into the sun, in the blue and with no flash. When we let the camera do this for us I used to joke around that it is like letting Nikon, Canon, Sony or whichever company who made the camera, do the shooting for us…and we should write 'photo©Nikon' on the side of the image, because it is doing all the thinking for you.

Before you throw this magazine away (or back at me) let me eplain. Whenever a camera measures the light, it compares the scene to an 18% grey card. If you don't want an 18% grey version of what you have in front of your eyes in the final picture you should do better and adjust it to the actual conditions. For instance, if you shoot at a ski-resort with lots of snow in your image, you would probably be better off increasing the exposure to make the snow white instead of 18% grey. On the other hand if you have a mainly black image, you would better compensate the exposure down to avoid a grey-out on your blacks and/or overexposed faces.

This is a funny concept in digital imaging, especially underwater. Back in the film days, they created several kinds of light meterings: spot, center-weighted, matrix, honey-comb…you name it. And they were all very functional, as we needed the correct measurement for that single shot, straight out of the blue – literally. With 36 exposures and no LCD preview or delete function we needed to nail the image on the first try (or at it's best on a 3-image bracketing). Nowadays when I dive most of the time I don't even know what light metering I am using! My camera is normally set up in M (Manual) mode and I know my speed/aperture adjustments and I go with the flow, shooting, looking, adjusting and shooting again.

Now that I got that out, let's go back to Jonathan's image. With a little bit more control on Jonathan's hand instead of his camera, he could have created a more dramatic image just underexposing a bit and showing the judges a bit of 'his own' photographic creation, or just how he interpreted the situation at hand (as shown on the quick pic fixed image). If you underexpose it increasing the shutter speed, you might even get those amazing frozen sun rays! Or even going the complete opposite way, overexposing it and creating a completely different high-key effect.

This subject is very touchy, and maybe his intentions were to show it as he did, which is also fine! But normally for contests, when you are already shooting without the flash, people will look for more elements in the image, and the next element you can work on is contrast (which is especially true for BW images where you also lose the colour effect!). Well this one leaves you to judge in doubt! Send in your comments and/or images for us at **photo@emiratesdiving.com**, and we will be happy to publish them in the magazine."

EXPERIENCING **MUCK DIVING** IN **NORTH SULAWESI**

FEATURE AND PHOTOGRAPHY **WARREN BAVERSTOCK (WWW.VERSTODIGITAL.COM)**

photograph by warren baverstock (www.verstodigital.com)

About 12 years ago, just after I became a PADI Open Water Diver, I was introduced to the concept of Muck Diving in North Sulawesi with promises of spectacular marine life. I was at the annual Dive Show in Birmingham and as I watched an amazing slideshow all about the weird exotic marine life found in this region, I pledged to myself that one day I would go and see it for myself.

In October 2008, the airplane landed on Manado airstrip and within 2 hours I had checked into a spacious hillside cottage at the Kungkungan Bay Dive Resort. After unpacking and assembling my cameras, I sat on the balcony looking out at the water reflecting a stunning bright blue sky. With a wave of exhilaration it finally dawned on me – I had finally made it to North Sulawesi!

Kungkungan is a small eco-dive resort positioned deep in the heart of what is considered the planet's epicentre for marine bio diversity. It is perfectly located in the Lembeh Straits and gives access to dive sites where you would struggle to find a higher concentration of marine life anywhere else on the planet. The resort is romantically nestled on the site of an old coconut plantation and is made up of thirteen beachfront cottage/villa style accommodations all constructed from local materials. The resort comes complete with an underwater photographer friendly dive centre, a swimming pool, which can be used for training, a spa and of course, a restaurant with a bar.

The next day I was feeling a little anxious with that 'first day at school feeling', not knowing what to expect. No sooner had I met with the dive centre manager, I was made to feel right at home with a very friendly welcome to KBR dive centre. For 20 minutes we went through all of the aspects of diver safety, what to do with your equipment at the end of the day, where you can maintain your cameras and how to reserve a spot for the next dive. Prior to the briefing I had placed my dive kit in a mesh bag and my cameras into one of the camera rinse bays, with everything carefully name-tagged. I was told to leave them and not worry.

Before I knew it, I was heading down the jetty towards the boats for my first dive. When I reached the boat I found my equipment was already assembled and that my cameras were carefully secured amongst the others ready for departure, now that's what I call service! After a quick confirmation and check of everyone's dive equipment, we set off for our first dive of the day.

Within 5 very short minutes we pulled up to our dive site. Very quickly I was in the water being handed my cameras. My dive buddy and I had already been paired up with 'Liberty' (our own KBR dive guide). As we descended we both followed him down a dark volcanic sandy slope. The first thing that hit me was how civilised the diving was, although there were ten divers of all experienced levels on the boat, everyone was split up into small groups, each with their own dive guide to take care of them.

The volcanic sandy slope was broken up by sporadic coral pinnacles teaming with life and as we descended the density of coral increased. It didn't take long for Liberty to find something of interest to point out. The parade of marine life started with a pair of Pygmy Seahorses, an Ambon Scorpion Fish, a Mantis Shrimp, which are all macro icons I had longed to photograph for many years. All the time we were diving, shoals of darting Shrimpfish and tumbling Striped Catfish moved from one pinnacle to another, all this on just my first dive! Back on the boat, I was literally in shock, I had just spent 55 minutes looking at more species of marine life than I had ever dreamt of and probably seen in my last year of diving. Within 10 minutes we were back on shore and I had signed up for the second dive of the day. Whilst sitting in the swimming pool carrying out my surface interval and drinking a cold Sprite, I admired the amazing scenery and felt elated, excited and immensely pleased with myself!

15 metres down I come face to face with my first Mimic Octopus. It's only the second dive of my first day of diving and I have encountered what is considered to be the most elusive and magical of the cephalopod family. By now my diving feels more comfortable and so my buddy, dive guide and I place a little more distance between each other and started to work the dive site like a team of crime scene

Periclimenes colemani - Fire Urchin


Blacksaddle Snake Eel


Paddle-Flap Scorpionfish - Rhinopias


Striped Catfish

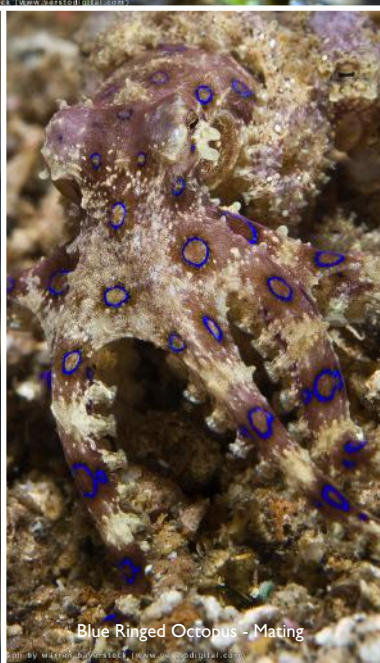

Wonderpuss - With Eggs


Ornate Ghost Pipefish


Nudibranch Risbecia tryoni & Imperator Commensal Shrimp


Mandarin Fish


Crinoid Commensal Shrimp


Blue Ringed Octopus - Mating


Ambon Scorpionfish


Mantis Smashing Shrimp


Banggai Cardinalfish


Mimic Octopus


Whitemargin Stargazer


Robust Ghost Pipefish

detectives. One of the highlights of this dive was when Liberty pointed out a tiny 2cm nudibranch (Risbecia tryoni) with an even smaller Imperator Commensal Shrimp hitching a ride on its back. This is incredible I thought to myself, life is everywhere, an underwater photographers dream.

After lunch, I found the usual suspects from the morning dives all eagerly waiting for the dive guides to perform the site brief. We were told with great detail what to expect from the next dive and that we were specifically looking for the Paddle Flap Scorpion Fish. Descending 18 metres onto this site, it was immediately apparent this was a totally different environment to the previous two sites. As I looked down hovering 5 metres over the bottom I could see a vast meadow of pulse corals that seemed to go on forever. Liberty signalled, gesturing that we would all have to keep our eyes open and as I started to scan the bottom I began to have doubts that we would find anything at all. After searching for what seemed like an eternity, we managed to find the Paddle Flap Scorpionfish. It was only with Liberty's knowledge of the dive site environment that we were able to witness this weird but wonderful fish. For the next 10 minutes we continued to scan the pulse corals for marine life and as they started to break up into patches we found the density of life return with frogfish, octopus, cuttlefish and seahorses. Whilst completing my 3 minute safety stop at 5 metres I found myself dazing into a fernlike coral that was swaying in the current when something moved. Looking closer I was amazed to see a male and female Ornate Ghost Pipefish picking out the microscopic plankton that floated past them. A great end to another great dive.

Back at the dive centre I am asked if I want to do an evening dive. The promise of a guaranteed Mandarin fish mating ritual, plus many other critters that appear once the sun has gone down, was just too hard to resist. 4 hours later I found myself and two other divers settling down on a bed of dead coral rubble at 8 metres just around the corner of the resort. The instruction for this dive was to not switch on our lights until the last minute and acclimatise our eyes as dusk slowly began. Looking down onto the dead coral rubble I had no idea what to expect when suddenly my eyes suddenly spotted movement in several places within the rubble pile. Looking closer I could see 20 plus Mandarin fish scurrying around the rubble. Moments later they were pairing up getting ready to do their first of two vertical swims above the rubble pile. Just before the area in front of me became filled with darkness, the male and females swam up 1 metre above the rubble where they mated for 4 seconds before returning to the security of their home. It was amazing to witness these beautifully decorated fish performing their breeding ritual. Before I knew it, it was all over and with our dive lights now on, we ventured further into the darkness for the rest of our dive. As our dive lights swept across the slopes of the dive site, we spotted critters everywhere, Stargazers, Devilfish as well as a selection of different crustaceans. Back on the boat I am handed a warm cup of cocoa and as I look into the cloudless sky, the moon and the stars look incredibly surreal. Racing back to the resort, with the warm air on my face and the boat skimming through the darkness on pond-like water, I feel like a navy seal returning from a VIP mission. As I leave the boat I am told to just wash my wetsuit and everything else will be taken care of ready for the next morning.

That evening, like every evening that followed, I fell into a regime of checking the day's photographs, followed by a beer or two over dinner and then a most comfortable bed. Six days later and with many dives under my belt, I am woken by the early morning sunrise shining through my window; it is time to get ready for my last dive at KBR.

The last dive produced more mimic octopus, a female Wunderpus guarding her clutch of eggs and a special sighting with a pair of shrimps (Periclimenes colemani) hitching a ride on a fire urchin, simply amazing.

After saying a sad farewell to my buddy and the dive team I am told that my transfer is waiting. Stepping outside the main reception area, I was shocked to find all of the staff from KBR, waiting to send me off. Some with musical instruments, they all sang a lovely parting song, wishing me farewell but to come back soon. Sitting quietly in the car travelling to the other side of the island, I reflect on the whole experience. KBR is such a very special place, not just due to the amazing and diverse marine life but because KBR is run by people who not only go out of their way to understand the needs of their guests, but do so with an overwhelming generosity.

In my opinion KBR is an ideal destination for all divers of all levels of experience, but is especially good for photographers (still & motion). During my time at KBR I found that novices and advanced photographers were all made to feel welcome and the facilities and security for equipment was extremely good.


Spiny Devilfish

For further information about KBR checkout:
www.divekbr.com
Video Clip: **www.divekbr.com/kbr_video.html**

ONE&ONLY REETHI RAH, MALDIVES
LAUNCHES NATIONAL GEOGRAPHIC AQUATIC DISCOVERY DIVE PROGRAM

JULY 2009 Surrounded by the sparkling shores of the Indian Ocean, One&Only Reethi Rah, Maldives embraces the richness of bohemian beach life, marine conservation and sharing it with our guests. For those who are now traveling in a more environmentally-responsible manner and want to participate in eco-activities, One&Only Reethi Rah launches the National Geographic Aquatic Discovery Dive program. Guests will now be able to be involved in the resort's environmental initiative to conserve existing corals and help spread the growth of corals in their natural environment of the lagoon and the house reef surrounding the resort.

The dive experience begins with an overview from Rainer Buchsot – Dive Centre Manager who will lead the group in collecting detached pieces of coral samples at nearby dive or snorkel sites for transplantation, followed by de-stressing the coral samples in an oral de-stress pool for approximately 24-hours after planting on the concrete base. After which the de-stressed corals will be moved to the coral table stations in selected areas of the lagoon. Pending the growth progress of the corals, guests will be able to replant the corals at the coral replant station (on the house reef) and glue it to the rock structure of the reef with underwater adhesive. Guests may then return on their next visit to monitor the growth and development of the corals they had planted.

This project demonstrates One&Only Reethi Rah's commitment to harmonize the surrounding reefs and to protect the twelve crescent-shaped beaches and shorelines from erosion. Coral reefs and the surrounding marine life have been the foundation of coastal communities for centuries. "Understanding the role of these reefs and learning to care for them enables our guests to gain valuable insight and appreciation for the marine life that depend on them." says Rainer Buchsot – Dive Centre Manager. It is through this respect and empathy can outsiders truly act responsibly towards a particular culture.

A traveller, who plants a coral with an awareness of its vitality to its surroundings, is rewarded with satisfying, tangible evidence that their efforts are beneficial to the local community. "This greater sense of ownership is accompanied by an increased awareness of the fragility of the environment and results in more enthusiastic efforts of tourists to protect and engage with it" says Rainer Buchsot.

PADI National Geographic Dive Centres are PADI's elite dive centres with the highest of customer standards and product offerings. At One&Only Reethi Rah's Dive Centre, a team of professionals conduct classes for all levels in several languages. Digital cameras and camcorders are available to film the colourful Indian Ocean marine life.

All instructors are qualified as National Geographic Diving Instructors and will lead the divers to observe and explore the dive sites like an underwater scientist. They will discover new things and practice interacting with aquatic creatures and underwater habitats in non-intrusive and positive ways.

Begin a lifelong journey of underwater exploration, dive adventures and participate in conservation efforts at One&Only Reethi Rah, Maldives. To book the National Geographic Aquatic Discovery Dive package or for further information, please email **reservations@oneandonlyresorts.com.mv** or phone **+960 664 88 00**.

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Created exclusively for the luxury resort market, One&Only Resorts are conceived as hallmarks of excellence. Set in some of the most beautiful locales in the world, each award-winning resort offers guests a distinctive style and personality borne of its local culture, a genuine hospitality and a lively energy that is unrivalled. These properties include One&Only Reethi Rah, Maldives; One&Only Le Saint Géran in Mauritius; One&Only Royal Mirage in Dubai; One&Only Ocean Club in The Bahamas and One&Only Palmilla in Los Cabos, Mexico. One&Only Cape Town, South Africa is currently under development and a further two One&Only Resorts are in the planning stages in Cacique, Costa Rica and at Muyuni Beach in Zanzibar. More information on One&Only is available at **oneandonlyresorts.com**.

A HEAVENLY VACATION ON PERHENTIAN ISLANDS, MALAYSIA

In Malaysia, it isn't very hard to escape for a weekend getaway on a paradise island. The only difficult thing is choosing which island to go to, as there are countless beautiful islands to choose from.

Off the east coast of Malaysia is the Perhentian Island, or Pulau Perhentian in Malay, which is very accessible from Kuala Lumpur, the capital city of Malaysia. An overnight journey by executive air-conditioned coach from the city brings visitors to Kuala Besut, Terengganu, the jumping off point to the island, early the next morning. From here, it is a mere 30 minutes by speedboat to the island.

As its name suggests (perhentian means "stopover"), the island is a resting place not only for the fishermen who go out to sea for weeks on end, but also for visitors looking for a beautiful island retreat.

The Perhentian Islands are actually made up of two islands in the South China Sea – Pulau Perhentian Besar (Big island) and Pulau Perhentian Kecil (Small island).

PULAU PERHENTIAN BESAR (BIG ISLAND)

There are three main beaches on Pulau Perhentian Besar. The best is Teluk Pauh on the northwest of the island which has been likened to a huge natural swimming pool with its clear and shallow waters and fine sandy beach. The waters here teem with marine life and some beautiful corals; the area is also a favourite place to spot turtles. From the elevated walkways on the rocky cliffs nearby, visitors can get a breathtaking view of the surrounding area.

The main beach on Pulau Perhentian Besar is located along the west coast of the island and stretches for about 1 km with some rocky headlands here and there. This is where most of the resorts are located.

Meanwhile, Teluk Dalam is located on the south of the big island. Its wide and curved beach, and shallow waters make it the perfect place for swimming and sunbathing. Compared to the other beaches on the island, it is much quieter and peaceful here.

PULAU PERHENTIAN KECIL (SMALL ISLAND)

Pulau Perhentian Kecil is the smaller of the two islands. Most of the villagers stay at Kampung Pasir Hantu on the Southern end of the island, where there is a school, a clinic, a police station and a mosque.

The main beach areas frequented by tourists are Pantai Pasir Panjang or Long Beach on the east coast and Coral Bay or Teluk Aur on the west. Long Beach is particularly popular among backpackers who travel to Malaysia and the atmosphere here is lively due to the young international crowd. There are plenty of accommodation and café choices here as well as dive centres. The beach is long and wide, perfect for sunbathing, however, the waves here are big and swimmers are advised to be cautious when out in the water.

A quieter beach is the Coral Bay which is a mere 15-minute walk from Long Beach through the jungle. There are fewer chalet operators here, some dive centres and cafes, making the atmosphere here intimate and peaceful. Visitors can snorkel off the beach or explore the area for their own "private" beach.

Pulau Perhentian Kecil also has several other beaches that are secluded and offer total privacy to guests.

DIVING AND SNORKELING

The Perhentian Islands are ideal for snorkeling and diving activities and visitors are able to appreciate the natural beauty of the underwater world at some thirteen dive sites around the islands. Sightings of stingrays, black corals, moray eels, reef sharks and colourful fish are the norm.

Because of their relative isolation, the marine life in the surrounding waters is largely intact. Divers prize Perhentian's small constellation of rocky islets for their giant soft corals, large schools of pelagic fish, and the nocturnal sea shells which are spotted in the shallow channel between the two main islands.

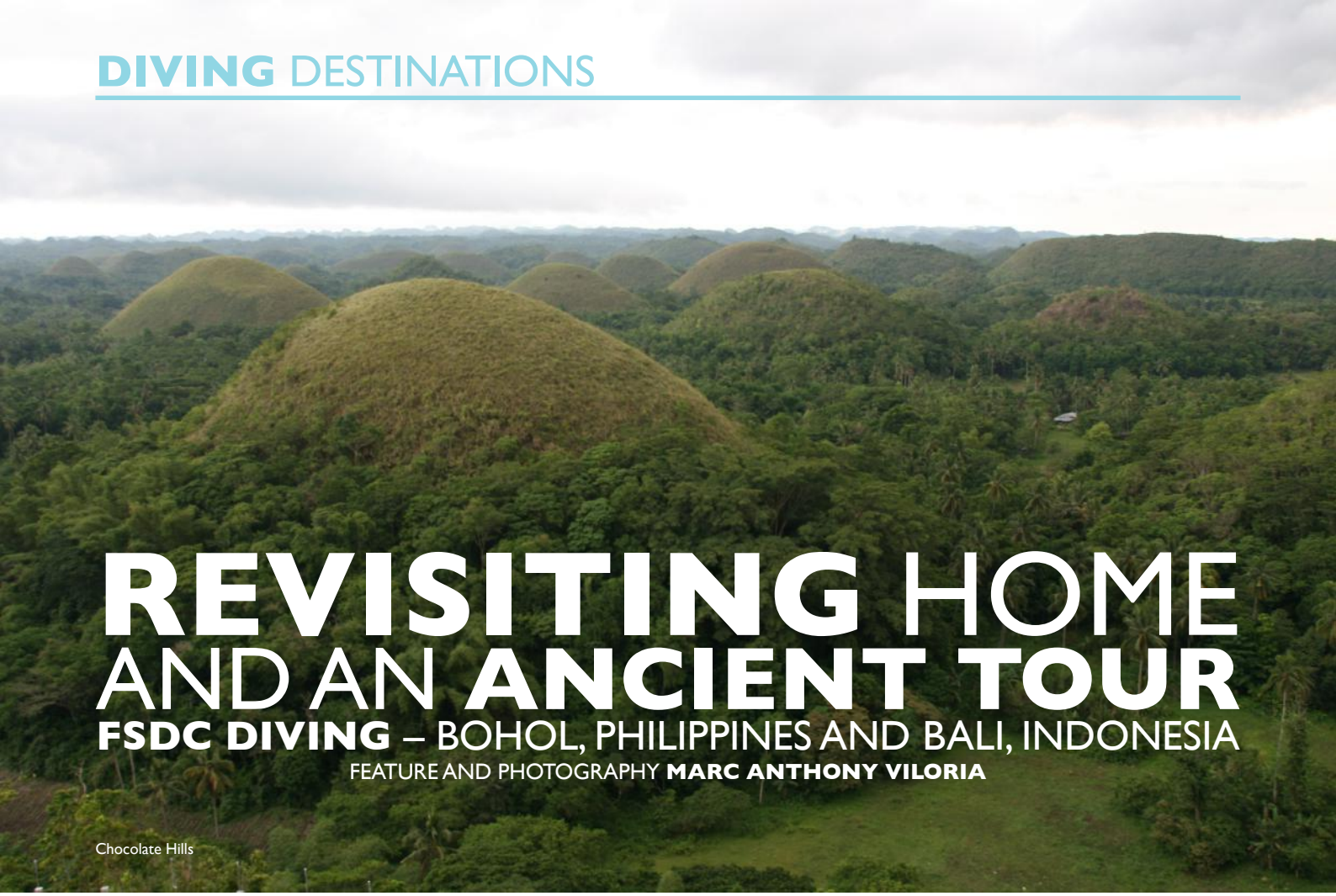
CONSERVATION EFFORTS

The surrounding waters of Perhentian Islands have been designated as a Marine Park and therefore, efforts are ongoing to protect the area from fishing, over-pollution and littering in order to maintain a healthy and abundant marine life and coral environment. More and more chalet operators are showing their concern for the conservation of the islands and waters of Perhentian by educating visitors to the islands to respect the environment. Many have started to work with the relevant authorities to establish conservation efforts to protect the dwindling numbers of nesting turtles and address marine and coral protection issues.

Between April and September, turtles of the Green and Hawksbill variety come up to lay eggs. The Department of Fisheries runs a turtle hatchery on the islands, and visitors can volunteer to help with data collection, research and such.

The best time to come to Perhentian Islands is between March and October when the weather is sunny and warm. Peak season is in June, July and August, so expect to pay slightly higher prices in accommodation. The islands are closed usually between November and February due to the monsoon season which brings rain and makes boat travel to the island difficult.

For more information and reservations, please contact **Discover Orient Holidays** at **opdxb@discover-orient.com.my** or call **+971 50 913 3298** / **+971 50 929 9039**.



REVISITING HOME AND AN ANCIENT TOUR

FSDC DIVING – BOHOL, PHILIPPINES AND BALI, INDONESIA

FEATURE AND PHOTOGRAPHY **MARC ANTHONY VILORIA**

Chocolate Hills

Most people agonize about where in the world they would go on a holiday. The Filipino SCUBA Divers Club's (FSDC) sound advice: see and visit Philippines, specifically Panglao Island in the province of Bohol down south. Then spice it all up with a Balinese dive experience in Indonesia.

Panglao Island is only one of many breathtaking coral and limestone islands surrounding the Bohol mainland, offering a la carte vacations or simply a scenic getaway. FSDC members discovered one of the best-kept secrets of the Philippine waters. Four days of diving in the Philippines unveiled the beauty of Pangalo underwater right before each and every diver's eyes.

DAY 1: HOUSE REEF SANCTUARY

We barely escaped the wet and rainy city life of Manila on the 7th of May. After an hour-long plane ride, we arrived in Bohol welcomed by a warm midday breeze and some Bohol-based friends who were the advance party. When we reached the resort, we immediately settled in and prepped ourselves for the days dives.

Destination: Doljo Point and Tawala Marine Sanctuary. Both dive sites can be reached by a 10-15 minutes banca (local boat) ride from Alona Beach. Both wall dive sites slope down to about 50 meters before hitting the seabed. The rich coral heads at the shallows house some of the best micro-organisms underwater photo fanatics can ever dream of shooting. One can take their time photographing colorful nudibranch and sea slugs, all the while enjoying the calmness of the water. Goatfish, butterfly fish, lizardfish, varieties of starfish and anemonae with clown fish are likewise common finds.

DAY 2: CABILAO ISLAND

Situated on the eastern coast of Bohol and almost an hour and a half away by banca, Cabilao Island has some of the best wall dive sites for experienced divers, as it can reach to 50-60 meters in depth. The two dive sites, Light House and South Point offered similar results – unparalleled diving, but of course each dive site had its own diverse marine life. The walls were covered with large gorgonian fan corals, elephant ear sponges and barrel sponges housing different types of fish. Visibility is never a question here as it can reach to almost 40 meters in fair weather and we were lucky to enjoy it that day.

DAY 3: BALICASAG ISLAND

The island is 9 kilometers from Alona Beach. We began our day with a traditional Filipino breakfast deliciously washed down with our own blend of tsokolate (cocoa drink). We planned to do three dives at The Cathedral, Black Forest and Balicasag Sanctuary. These dives sites can go as deep as 60-80 meters. With a very mild drift, we were able to find rare species like black frogfish, barracuda, moray eel, titan triggerfish, shoals of surgeonfish, trumpet fish and cornet fish. At 30 meters depth, we found the black forest corals, which live up to their name. At the shallow waters, there were plenty of colorful nudibranch to see and enjoy, much to the delight of the macro enthusiasts. The last dive of the day left us with an astonishing view of schools of jackfish as they swam and amazed us with their formations.

Balicasag Island is a marine protected area where local fishing is strictly regulated. In between dives, we went to the island to have freshly cooked red snapper for lunch, prepared sutukil style (broiled, cooked in sour soup, and raw soaked in vinegar). There was also adobong pusit (squid sautéed in vinegar and soy sauce) and loads of rice. The feast ended with a 20-minute siesta.

DAY 4: ALONA BEACH

We saved the best for last. This is what Arco Point and BBC (Bohol Beach Club) dive sites had to offer. The equally abundant and healthy coral wall still offered amazing diving, considering that snorkeling and several water sports can easily be accessed from the beach. A white frogfish camouflaging itself on a coral head entertained us while feeding. At the deeper end of the wall, we found a fingernail-sized pygmy seahorse nursing in one of the


Cabilao Island, Bohol


Clownfish, Cathedral, Bohol


Frogfish Arco Pt, Bohol


Jack Fish Shoal, Balicasag, Bohol

fan corals. There are plenty of swim-throughs and interesting finds like ghost and banded shrimps, decorative crabs and nudibranch that can be seen amongst the anemonae. The great abundance of fish varieties in these dive sites couldn't be overlooked. These dive sites sloped down to about 45-60 meters.

DAY 5: THE NATURE TOUR

Of course, we wouldn't want to leave Bohol without visiting some of their famous topside attractions – the Chocolate Hills, Baclayon Church, Loboc River Lunch Cruise, Bohol Bee Farm (organic dinner mania) and the manmade mahogany forest. We went to Bohol with a campaign – "Save the Tarsier, Go Dive." Visiting a tarsier habitat increased our awareness on how fragile this little creature is and how its survival is dependent on the communities surrounding their home.

Our trip was made sweeter with bites of Peanut Kisses, Bohol's signature pasalubong. But more than bags of Peanut Kisses, dried seafood, tsokolate, tourist-y shirts and other knick-knacks, snapshots capturing the Bohol's astonishing beauty remain the best souvenirs.

And less than 24 hours later (Day 6), we hopped on a plane once again to a neighboring paradise…

ANCIENT BALI, INDONESIA

The first thing that comes to mind when one mentions Bali are wannabe hippies from the sixties who apparently forgot to go home and are still hanging around the island's beach bars, trying to embrace the sunset and remember what brought them there in the first place – and some of them are still there.

Tucked between the islands of Java to the west and Lombok to the East, Bali has long been a favorite destination of paradise seekers, beach bums and divers. With lush, tropical greenery, long stretches of beautiful beaches and a laid back Balinese offering a warm welcome – Bali is indeed a dream destination for a little R&R.

FSDC members made this dream a reality to continue the adventure to this island paradise to experience some of the most sought after dive sites and beaches in the world. After hours of flying and airport hopping (Manila-Singapore-Malaysia-Denpasar), we forgot the fatigue by the beauty of the place we stayed in. Gigantic woodcarvings, Balinese murals, old trees and lots of Buddhist Gods were common fixtures in the hotel. After a quick shower and a light snack, we were off to bed, in preparation for the next day's diving adventure.

DAY 7: TULAMBEN

A two-hour road trip from Sanur to Tulamben gave us some lead time (a.k.a. a short nap) to psyche ourselves for the three-dive trip. All the dive sites can only be accessed from a rocky shore so it was a good idea to wear booties, as it may really hurt the feet. The first dive (The Drop Off) was just a teaser of things to come. We swam away from the shore and started descending to what we thought was an endless bed of black volcanic sand, with a few species of seemingly dazed tropical fish. After almost 10 minutes of swimming, we found a more colorful place with patches of healthy corals surrounding the pinnacle. Angelfish, lionfish, moray eels, and Moorish idols filled the reef. At 26 meters, formations of large tube and barrel corals reaching to about two to four meters can be found.

We moved out and went to the other side of the mountain where we had our second and third dive – wreck diving on USAT Liberty. Just 30 meters offshore, the impressive USAT Liberty is a 120-meter remnant from the Second World War, which was built in 1915 and torpedoed on 11th January 1942 by a Japanese submarine. She was successfully towed back to the beach, but a volcanic eruption in 1963 pushed it back to its present location. She is badly battered, with the bow pointing to the deeper end at 28-30 meters. Almost the entire metal of the ship is encrusted with corals but details can still easily be made out. There are plenty of large open swim-throughs (we did it during our third dive), which gave us a good feel of the ship's history. But the dive was not all about recalling the ship's history. This vessel celebrates the richness of Indonesia's marine biodiversity. With an astonishing number of fish varieties (damselfish, butterfly fish, wrasse, unicorn fish, hawk fish etc.) swimming right up to us, the dive left us in awe. We also found colorful nudibranch, blue-ribbon eels, garden eels, leafy frogfish and pygmy seahorses. Up and around the wreck towards the exit point, we saw groupers of unbelievable size, measuring up to 2 meters in length, massive napoleon fish, bumphead parrot fish and large black-spotted sweet lips. Then we had a déjà vu moment, as we ended our dive marveling at yet another school of jack fish.

The day was long, the land trip was exhausting but we didn't want to end our day without a seafood dinner by the beach in one of Bali's most romantic fishing villages – Jimbaran. While feasting up on our freshly cooked dinner, we were serenaded by the locals with reggae love songs (I knew I was right in saying they were wannabe-hippies). A panoramic view of the more famous and busier Kuta beach can be seen from afar.

DAY 8: NUSA PENIDA

To the East of Bali, the island of Nusa Penida is an hour-long boat ride crossing Bandung Strait (part of Indian Ocean). Our three-dive day started at the Manta Point where at 10-15 meters depth, we barely got a glimpse of a timid, 3-meter wide Manta ray swimming past us. Just when all hope for seeing another Manta ray was gone, three Manta rays ranging from about 3-5 meters wide showed up minutes later and like superstars (and they were) on stage, they alternately circled the pinnacle,

giving us all the chance to photograph, video and enjoy a great dive with them. We were so entertained by these massive creatures that we were all reluctant to ascend.

The second dive was more of a search operation. Crystal Bay is famous for the elusive Mola Mola or sunfish, which can grow to nearly 45 meters in size. Though we knew that we were there off-season and had slim chances to see the Mola Mola (mostly seen between August to November at 25 meters depth), our dive was not a lost cause, after all. Around the corals were a variety of micro finds like nudibranch, anemonae crabs and shrimps, sea slugs and rare saddleback clownfish. Swimming against the current, we saw patches of coral heads teeming with reef fish. The sandy bottom was home to many cuttlefish dozing off, along with different varieties of starfish. After having our lunch (Nasi Goreng, noodles and crackers) on an island, we spent our surface interval watching the local children frolicking along the shore.

The third dive at Toyo Paka tested our buoyancy skills as we constantly swam over a vast bed of staghorn corals. The reef is located at 15-18 meters, before sloping down to about 20-22 meters where larger hard and soft corals can be found. This dive site is so rich with corals that we barely saw sandy patches. And of course, the reef hosted different varieties of fish (butterflyfish, triggerfish, grouper, scorpion fish, wrasse, clownfish). Nudibranch, crabs and shrimps can be found lounging around the corals.

DAY 9: AROUND ANCIENT BALI

The two days of diving was followed by a scenic tour of the city. We first marveled at local craftsmen's silver jewelry but not surprisingly a little bit more costly than those that sell them in the marketplace. We then headed off to the batik shop where we got the chance to watch the locals artistically hand drawing the designs. After the snack break, we visited the independence square and one of the local painting shops. Bali is also famous for their balinese paintings that features extravagant details of their subject. The beauty and varieties of their paintings have gained the admiration of tourists like us.

All in all, it was indeed an amazing experience for FSDC.

FSDC Members on these trips:
Cyril, Des, Tina Amy, Tina V, Kyle, Marc Q, Rylan, Cacai, Romy, Emma, Leo Virgo, Mutya, Jove, Nana, James, Marc, Mylyn, Hugo, Marivie, Elaine, Mario, Merlie

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Dive Crew: Avandy, Wayan, Maui, Bodo, Putu, Mahdy
Inna Grand Bali Beach Hotel Resort & Spa


USS Liberty


Independence Square


Pygmy Seahorse, Tulamben


Tarsier, Bohol

THE UPS AND DOWNS OF ASCENTS

DAN EXAMINES THE TRUTH OF **TAKING IT EASY AND SLOWLY**

FEATURE **JEFF MYERS**

THE OLD SAYING "WHAT GOES UP MUST COME DOWN" APPLIES TO DIVERS, BUT IN REVERSE.

For divers, the mantra could be "What goes down must come up," with the addition of "slowly" a the end of the saying. Divers should understand the intricacies of ascents and the possible outcomes of doing them improperly.

Regarding "upward mobility" in diving, some might think: "If I just come to the surface, everything will be fine, because I'll be able to breathe without my scuba equipment." In its simplest form, this is true. However, because of the effect of breathing compressed air at greater pressures underwater on our boides, it's not quite as simple as that. To avoid the potential ill effects of ascending improperly, we must consider – and follow – several critical concepts.

SLOWLY ASCEND ON EVERY DIVE

The 2004 edition of the DAN report on Decompression Illness Diving Fatalities and Project Dive Exploration found that in 53 percent of the 346 injury cases, divers reported experiencing some form of problem on the dive. In more than 20 percent of these cases reporting problems, the report listed rapid ascents as the number-one contributing factor to the problem. Though these statistics may not be representative of any group other than those reporting, it is worth noting that this finding is consistent with the two previous years' reports.*

Ascending slowly on every dive is one of the essential tenets of diving. To do otherwise pits the diver against Boyle's Law; in this battle, the diver will likely lose. The question then, is "How slow is slow enough?" Unfortunately, there is no easy answer. Most references will tell you that an ascent rate of no more than 9-18 meters per minute is a pretty good bet.

When making a direct ascent to the surface, be sure to keep a hand on one of the exhaust valves of your buoyancy compensation device and dump air as you slowly rise. Remember, air expands on ascent, so the air you added to your BCD during your dive wil cause you to ascend too fast if you don't dump air as you're heading to the surdace. If you find yourself ascending too rapidly, you can try flaring your arms and legs to create additional resistance. This will help slow you down. Before your ascent, try to position yourself close to an ascent line, all or other structure in the water. Any of these will act as a visual reference as you ascend, allowing you to better judge your speed. If none are available, try watching the particulate matter floating in the water. Often these tiny specks will function as visual cues. If all else fails, keep your exhaust bubbles above you as you slowly rise. If you find yourself catching up to and passing your bubbles, you're going too fast. Dive computers are becoming standard dive equipment these days. Depending on the make and model, the computer may afford different options such as an audible alarm if you ascend too quickly. To ensure you can respond appropriately to what you're hearing and seeing, study these features before using a computer. For more details on the computer that's right for you, consult your local dive centre.

MAKE THOSE SAFETY STOPS

One of the great things about no-decompression diving in open water – versus diving in overhead environments – is that you can always make a leisurly ascent. Recreational divers learn early that towards the end of this slow movement to the surface, they should make a safety stop. This provides a buffer zone for the body to offgas some more of the system's accumulate nitrogen, thus decreasing the likelihood of a problem with decompression illness (also referred to as DCI). A safety stop entails stopping at a predertermined depth for a set time: a stop somewhere between 3-6 metres for three to five minutes will do nicely. Besides allowing you you to eliminate nitrogen, a safety stop also functions to slow your ascent rate. To make this stop, though, ensure you have sufficient air in your tank. In addition, because you make the stop at the end of your dive, remember that the decreased weight caused by a near-empty tank can possibly create buoyancy problems. This might cause a rapid ascent and prevent you from performing a safety stop altogether.

DO SUFFICIENT PRE-DIVE PLANNING

Avoid overweighting yourself: this can lead to overexertion, uncontrolled descents and damage to the aquatic environment. Practice with your weighting to be sure you can make a safety stop with a tank that's low on air. Spend time in a controlled environment, using different weighting configurations, to see what works best.

MAKE YOUR DEEPEST DIVES FIRST

To add in some conservative dive planning, complete the deepest dives first in your series of daily dives. In essence, shallow dives following deep dives function as quasi-"treatment" dives and, in effect, allow additional offgassing of nitrogen. Most divers also plan their dives to hit the deepest point early in their dives, then slowly make their way towards the surface, exploring other spots as they progressively ascend to shallower depths. By using this natural progression to the surface – also known as multilevel diving – divers complete a form of "theoretical" deep stops. Research now suggests possible benefits of deep stops may have on divers. Avoiding rapid ascents starts long before you get in the water. Take time to understand everything involved in making ascents. Practice the skills that support a diver's ability to safely ascend: buoyancy control, equipment familiarity and the ability to judge the speed by which you ascend. It's not simply "going to the surface."

Build your confindence by practicing in controlled environments, such as in a pool or confined water, and seek the assistance of dive professionals to help you hone your skills even further.

**It's difficult to say, though, withg certainty what rold rapid ascents play in injuries; this is due to inconsistent computer ascent rate warnings and the reporting divers' bias on what a rapid ascent is.*

(c) Wolcott Henry 2005/Marine Photobank

DIET AND FREEDIVING

FEATURE **SARA-LISE HAITH** PHOTOGRAPHY **RICK GAMMANS**

Dieting correctly for Freediving is a very large subject and there are many schools of thought as to what one should or should not eat for maximum performance and also fat reduction.

Mucus formation is a problem that many freedivers I know suffer from, including myself. Also to some extent scuba divers may suffer from this, and don't realise that this may be part of the reason for their equalisation problems. Some people find that congestion in their sinuses causes them pain and equalisation problems during Freediving, and there are a number of foods that are specifically mucus forming in the body and should be avoided.

Dairy products, like milk, cream and cheese are the worst culprits. Goats and sheep's milk products are a natural alternative for milk sensitive divers and have less lactose content than cow's milk and can be taken in small quantities. It has been hypothesized that the reason lies in goat milk's superior digestibility. Goat milk is more completely and easily absorbed than cow's milk, leaving less undigested residue behind in the colon to quite literally ferment and cause the uncomfortable symptoms of lactose intolerance, including bloating of the stomach.

Oranges are also acidic on the stomach and digestive system. Oranges are often served on dive boats to scuba divers after dives and divers who have "squeaky-squelchy" ears should not eat oranges if they are planning to dive.

Wheat is also on the list of no-nos. A sensitivity or allergy to wheat can produce a variety of symptoms in the body such as sneezing itching, rashes, watery eyes, runny nose, coughing, hay fever, headaches, nausea, digestive problems, swollen limbs or general aches and pains. Wheat makes the body produce more mucus and this also provides a good breeding ground for bowel bacteria such as Candida. Food allergies are often difficult to identify because reactions can be delayed from anything from two hours to many days after taking the offending foods. Typical products containing wheat are breakfast cereals, bread, pasta, crackers (unless they are specifically gluten-free, corn or rice crackers).

For those who do suffer from lactose or wheat intolerance it has also been suggested that a daily intake of acidophilus can assist freedivers (and scuba divers). Studies have indicated L. acidophilus may provide additional health benefits, including improved gastrointestinal function, and a boosted immune system. Some people report L. acidophilus provides relief from indigestion and diarrhoe. There are many types of fermented dairy products that use L. acidophilus. The most familiar to us here in the Emirates are sweet acidophilus milk and yogurt products such as Activa. It is preferable for freedivers to take acidophilus in tablet form, available in most health shops. I have personally tried it with a great degree of success.

Women should also consider their menstrual cycle while diving. During the menstrual cycle the body retains more fluid and women can experience an increase in fluid in the Eustachian tubes during this time and also "squeaky" ears.

A common problem freedivers face is diving when they have food in their stomach. This can cause difficulty breathing, acid reflux, and digestion uses blood that would ordinarily be used for the freedive. In addition, when a body is immersed in water, the digestion process slows, exacerbating the problems above and could cause the food to ferment inside the stomach as it waits to be passed through. When people eat different food groups (carbohydrates and proteins) in the same meal, this contributes to bloating, slow digestion, and fermentation. This is because the body has to produce 2 digestive enzymes at once. If one eats a meal containing vegetables and complex carbohydrates, then it will pass through the stomach within 2 hours. If one eats a meal containing vegetables (not potatoes or corn) and protein, then it will pass through the stomach in about 3 hours. If one combines proteins and starches then it will take far longer to digest – up to 5 hours. Fruit should only be eaten on an empty stomach as it digests quicker than any other food and if it is eaten with other foods then it ferments inside the stomach leading to bloating, gas, and acidity.

So what does this mean for freedivers?

Before a freediving session one should try and eat a meal of complex carbohydrates and vegetables (preferably raw as they contain enzymes which support the body in digestion). The freediver should then wait at least 2 hours before entering the water.

BODY WASTES AND FREE RADICALS

When we hold our breath, our cells start spontaneously breaking down sugars to release oxygen and automatically excreting cellular wastes into the blood stream. This, and the build up of lactic acid, can cause extreme fatigue after a freediving session. If our diet is high in refined and processed foods, sugar, red meat and stimulants, and low in raw food, fresh fruit and vegetables, complex carbohydrates and omega oils, then we also have a build up of free radicals in our bodies which causes cell damage.

A combination of free radicals and wastes caused by breath holding can exhaust a diver and to combat this through diet it is important to eat a diet high in fresh, (preferably 80 percent raw) vegetables, seeds, complex carbohydrates, pulses, oily fish and fruit, and low in refined carbs, red meat, saturated or hydrogenated fats, dairy produce, sugar, alcohol, caffeine and other stimulants.

ACID/ ALKALINE BALANCE

To maintain health, the correct acid-alkaline balance within the body needs to be maintained. If one eats a high proportion of acid forming foods, this causes toxic overload which shows up in increased fatigue, poor blood quality, calcium deficiency and cramps, all of which a freediver should avoid. A freediver should try to make 80 percent of their diet from alkaline forming foods.

ALKALINE FORMING FOODS
- All fruit except plums, preserved and processed and sugared fruits
- All vegetables except asparagus, broad beans, peas and brussel sprouts
- Unpasteurised goats or sheeps milk and yoghurt, egg white, tofu and soya products, millet, buckwheat, honey and herbal tea

NEUTRAL FOODS
- Almonds, brewer's yeast, all sprouted nuts and seeds and sprouted pulses (alfafa intake is highly recommended)

ACID FORMING FOODS
- All meat, fish, cheese, egg yolk, butter, cream and any pasteurised, cooked, dried or canned milk
- All grains except millet (refined grains are more acid forming than whole grains)
- All alcoholic drinks, coffee, cocoa, condiments, flavourings, vinegar
- Pulses not listed as alkaline

For freedivers it is important to eat lots of fruit and vegetables, for vitamins and antioxidants. They also need to get enough iron for red blood cell production, so lean red meats (but not in excess) and leafy greens are important to eat.

SUPPLEMENTS
A freediver should try and get their nutrients from food, as many supplements on the market either do not actually have the amounts of the minerals and vitamins present, or they are in forms that the body finds difficult/impossible to absorb.

If a healthy, organic diet is difficult to come by, a good multi vitamin and vitamin C should be all that is required. If a freediver is training intensely then they should consult a nutritional therapist who would be able to prescribe according to the individual's needs.

There are a number of other recommended foods for freedivers or spearfishers. Cranberries is one of them. Try to take a concentrate or juice that does not contain sugar. Cranberries are very good for the bladder and urinary tract and help clear and prevent cystitis (bladder infection) which can be aggravated by marinating in a urine-filled wetsuit.

Eat avocados. These contain omega oils and have more potassium than bananas. Potassium intake assists the prevention of cramp and dehydration during diving. If you are on a controlled diet you may replace 1 piece of fruit per day with an avocado as a substitute.

Drink lots of pure water but not with food. Both freedivers and scuba diver lose lots of water during diving through sweat, mouth respiration and immersion diuresis. If you drink with meals then it dilutes the food and impairs digestion.

THINGS TO AVOID BEFORE DIVING:
DECONGESTANTS
These dry out the delicate mucus membranes of the sinuses and can lead to reverse block. Instead, try steam inhalation with essential oils of tea tree/pine/eucalyptus/peppermint/rosemary/sage/thyme (you choose which you like and put a max of 4 drops per inhalation). Nasal sprays containing substances like Xylometazoline, Oxymetazoline or Tramazoline and pills containing pseudo-ephedrine (pseudo-ephedrine is related to adrenaline) like Sudafed® should be avoided. In spray additives and preservatives like benzalkonium are often used which hurts the cilia which are part of the cilia mucous system which keep your sinuses and ears healthy.

In scuba diving it is advised against diving deeper than 30 meters or using nitrox on Sudafed because it could adversely affect susceptibility to nitrogen narcosis and oxygen poisoning (Source: www.duiken.nl). Sudafed should possibly be considered more dangerous in freediving as it has more negative side effects like decreased bottom time. In freediving, the heart is under more stress than from scuba diving and nitrogen-narcosis effects are worse when you descend quickly.

ALCOHOL
Freedivers have reported that red wine also increases mucus formation and therefore may hinder efficient equalisation.
CAFFEINE
Caffeine drinks increase the heart rate which is the exact opposite effect that freedives and spearfishers need to achieve before diving.
FIZZY DRINKS

Tips and Extras to improve your performance and assist your equalisation:

Use a neti pot twice a day. The neti pot clears the front sinuses with salt water and is very good not only for clearing the sinuses but also preventing disease. Neti pots can be purchased online and delivered to the UAE from http://www.sinucleanse.com. Preferably, use marine salt with no additives or anti-caking agents.

Ear candling Hopi ear candles. These can help balance the ear and clear wax. If you don't want to do it at home, the Breath and Health Centre on Al Wasl Road can do it for you at a very reasonable price.

Stretching exercises and yoga. Stretching the neck before Freediving and scuba diving will assist and improve equalisation, and yoga helps to improve flexibility, strength and breathing technique.

After reading all the above, the first thought may be "what can I eat for breakfast?" Oats made with Rice milk or soy milk is a good winter option. Oats give you sustained energy through the day and rice milk is non-mucus forming. In the hotter months, a boiled egg, cut up with a whole avocado, alfafa, perhaps some fresh coriander or some mung bean shoots, with some rice crackers.

It is very important to note that whilst these are general guidelines, each person is a unique individual and may find that other foods are harmful/beneficial. They should always consult their physician before undertaking a radical shift in their diet, and above all, listen closely to their body.

SOURCES:
Emma Farrell – http://www.emma-freediver.co.uk

Walter Steyn – http://waltersteyn.com/Deeperblue.net

Aharon Solomons – http://www.freedivers.net/

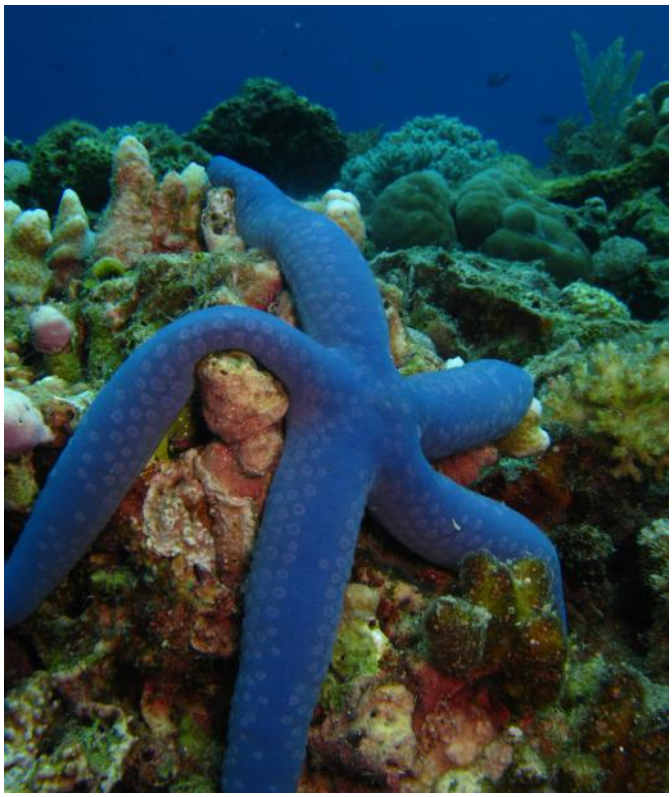
Umberto Pellizari – http://www.umbertopelizzari.com/

Sara-Lise Haith – www.divasindubai.com

LeeV, St Leger Dowse M, Edge C, et al. Decompression sickness in women: a possible relationship with the menstrual cycle. Aviat Space Environ Med 2003
www.duiken.nl

ANSWERS TO **THE GENERAL QUIZ**

1. a) Ampullae of Lorenzini
2. d) Seahorse
3. c) Ichthyology
4. a) It is an egg-laying mammal
5. a) Animals having no vertebral column
6. d) Gills
7. c) Fish
8. b) snails and slugs
9. d) 95% of living molluscs
10. a) a process that results in the rotation of the visceral mass and mantle on the foot
11. a) True
12. b) One shell



COVER PHOTO:
SEA STAR BY **JONATHAN CLAYTON**

It is not easy to make a good cover shot. We cannot simply award it to the winner of the event or to the most voted picture as there are certain requirements to follow such as formats (vertical vs. horizontal) and to keep backgrounds as plain as possible as it competes with the cover's captions.

We would like to congratulate Jonathan again for being one of the few photographers in the event (and the most successful one) to turn his camera on it's side to shoot vertically. Jonathan showed great vision and photographic skill in choosing this format which awarded him third place in the Wide Angle category and got him second place overall in the EDA Digital Online 2009 Photo Competion, congrats!

FEATURED **CREATURE**

SEA **SLUG**
(Philinopsis reticulata)

FEATURE **RITA BENTO**
PHOTOGRAPHY **MARCELO MARIOZI**

EDA accepts text and photo contributions for this page.

FAST FACTS

- It's a tropical opisthobranch species
- Have variable colour pattern throughout its Indo-Pacific range
- It grows to a maximum length of approximately 6cm
- It is generally found near coral reefs however it can be found in sandy bottoms or in amongst soft corals.

FUN FACTS

- It has a tiny internal shell
- An important character is the shape of the head, with a high median ridge (buccal bulb), clearly seen in the photos.
- It's a carnivorous hunter. It uses the buccal bulb to catch bubble shells and other opisthobranchs.

UPCOMING **EVENTS**

SUHOUR

3 September 2009

BIOSPHERE EXPEDITION

8-31 October 2009

CLEAN UP ARABIA

November 2009

NOTICES

EDA RAMADAN TIMINGS

EDA Ramadan timings will be from 9am to 2pm.

We would like to to wish all our members Ramadan Kareem and Eid Mubarak!

from the EDA team

EDA
جمعية الإمارات للغوص
Emirates Diving Association

MISSION STATEMENT

To conserve, protect and restore the U.A.E. 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 standardization 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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DIVE OUR OCEANS

95% OF THE **UNDERWATER** WORLD REMAINS UNEXPLORED

ما زال ٩٥٪ من عالم الاعماق مجهولاً حتى الآن

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جمعية الإمارات للغوص
Emirates Diving Association