

Inspiring People to Care About our Oceans Since 1995

DIVERS FOR THE ENVIRONMENT

WWW.EMIRATESDIVING.COM | MAGAZINE | DECEMBER 2010 | VOLUME 6 | ISSUE 4

CORAL REEF CONSERVATION PROGRAM 24

MANTA CHAOS IN HANIFARU 42

BOKASHI DUBAI

RECYCLING & COMPOSTING OF FOOD WASTE 41

**TERENGGANU ISLANDS:
REVEALED 54**



2  10
CLEAN UP
ARABIA



A GREEN ACHIEVEMENT FOR DUBAI



Dubai Chamber of Commerce & Industry has achieved the coveted LEED Certification for existing buildings, making it the First LEED existing building in the Arab World. This success is the result of numerous initiatives over the last decade including energy and water optimization, which have led to accumulated savings of around AED 7.1 million at little or no cost.

800 CHAMBER (800 2426237)
www.dubaichamber.ae

Established in 1965, the Dubai Chamber of Commerce & Industry, according to Article (3) of Law No. (8/1997), is a non-profit public entity, whose mission is to represent, support and protect the interests of the business community in Dubai; by creating a favorable business environment, supporting the development of business, and by promoting Dubai as an international business hub.

LEED is an internationally recognized green building certification system developed by the U.S. Green Building Council, providing third-party verification that a building or community was designed and built in an environmentally responsible manner.

غرفة دبي
DUBAI CHAMBER

REGULARS

- 5** EDA DIRECTOR'S NOTE
- 6** FEATURED CREATURE
Blacktip Shark
- 67** UPCOMING EVENTS
EDA Event schedule Updates
- 67** INTERESTING LINKS AND RESOURCES

NEWS

- 8** EDA GALA DINNER
- 9** GOUMBOOK'S FUTURE GREEN
- 11** MARINE MAMMAL MEDIC COURSE IN UAE
- 12** DRAGON BOAT RACE
- 12** THE SCUBA DIVER ASSISTANT
Introducing The Uemis Zurich, Smart Dive Computer
- 13** OCEANS MOVIE SCREENING
- 13** WORLD GREEN TOURISM
- 14** DIBBA MANAGEMENT PLAN PROJECT
- 15** STATE OF THE ART SHIP
Enters Honolulu Port
- 15** ADDU ATOLL
Maldives – Discover Orient Holidays
- 16** ALI WAL SHOAL & SODWANA BAY
South Africa – Discover Orient Holidays
- 16** GOVERNMENTS TO ACT
On Ocean Industry Impacts Through International Treaty
- 17** ABU DHABI BREAKWATER
- 18** SCUBA CLEAN UP:
An Underwater Volunteering Experience
- 19** ATLANTIS DIVE CENTRE
PADI Project Aware International Clean Up
- 19** ATLANTIS DIVE CENTRE
Becomes an International Yacht Training Facility
- 20** ATLANTIS DIVE CENTRE
New House Reef
- 20** SHOPPING

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 March 2011. Send all articles, feedback or comments to: magazine@emiratesdiving.com.



30



42



52

- 21** 100% OWSI
- 21** FREE EANX
- 21** DIVE TRAVEL FROM THE SAND TO THE ICE AND THE JUNGLE IN-BETWEEN
- 22** PROJECT AWARE CLEAN UP DAY
- 22** PADI TEC REC
- 23** PRACTICAL DIVE TIPS:
Lose Some Holiday Weight
- 23** GO PRO ANYTIME

CORAL NEWS

- 24** CORAL REEF CONSERVATION PROGRAM
- 25** HOW MANY PEOPLE ARE DEPENDENT UPON CORAL REEFS

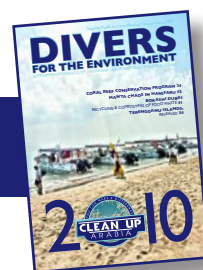
REEF CHECK

- 27** REEF CHECK LAUNCHES BUSINESS MEMBERSHIP PROGRAM
- 27** REEF CHECK FEATURED IN SEA VOICES BOOK
- 27** "VOLUNTEER" DOCUMENTARY TO FEATURE RC FIJI EXPERIENCE
- 28** MUSANDAM EDA/BIOSPHERE EXPEDITIONS 2010

FEATURES

- 30** CLEAN UP ARABIA 2010
Main Event Le Méridien Al Aqah Fujairah

EDA COVER
PHOTO BY ALLY LANDES



SHIRO ECHO

This magazine is printed on Shiro Echo 100% Recycled Post Consumer Waste Paper

CONTENTS

- 34** CLEAN UP ARABIA ABU DHABI
Top Ten Offenders Revealed
- 36** CLEAN UP ARABIA MUSANDAM
Nomad Ocean Adventures
- 37** CLEAN UP ARABIA DUBAI
Sky & Sea Diving Center
- 38** CLEAN UP ARABIA BAHRAIN
- 39** DUBAI CHAMBER RECYCLE IT
- 40** GOUMBOOK'S GREEN MAP
- 41** BOKASHI DUBAI
Recycling & Composting of Food Waste
- 42** MANTA CHAOS IN HANIFARU
- 48** SHARKWATCH ARABIA UPDATE
- 49** SHAIKH IBRAHIM ISLAND IN BAHRAIN
Amazing Site for Snorkeling & Educational Activities
- 50** CNIA BIHAR CAMPAIGN
Working Together To Ensure A Safe Marine
Environment For All

UW PHOTOGRAPHY

- 51** EDA DIGITAL ONLINE 2011

DIVING DESTINATIONS

- 52** A DIVER'S DREAM
- 54** TERENGGANU ISLANDS: REVEALED
- 57** GASCO DIVING TRIP TO SIPADAN
October 2010
- 58** RAS MUSANDAM
(A Reef Dive In The Musandam)
- 59** TANZANIA
Ngorongoro, Serengeti & Zanzibar
- 64** MAGIC IN THE MALDIVES

HEALTH

- 66** WOMEN AND SCUBA DIVING

42 HANIFARU CHAOS Divers per Mantas
Photo by Warren Baverstock www.verstodigital.com



ANOTHER YEAR

RECAPPING WHAT WE'VE MANAGED TO ACHIEVE, ADDRESS AND TEST



IBRAHIM N. AL-ZU'BI
EDA Executive Director

It's hard to believe that another year is coming to an end. Time has yet again passed so quickly and I want to look back onto 2010 and recap everything that we have managed to achieve, address and test.

Firstly I want to thank all our EDA members and readers for all the wonderful contributions that have made the EDA magazine, "Divers for the Environment" what it is today. The issues become thicker each year and the articles are richer and more colourful than ever before and we are so proud to have a community speckled all over the world contributing their experiences and expertise for all of us to read and enjoy. The magazine is now a reference for divers from all over the world.

Since launching EDA Digital Online in 2009, we have seen a rise in underwater photography and are so proud that we get to view our oceans through all your different angles, it has made such a difference. We have noticed that the UW photography competition has started an UW photographers community working to promote and improve UW photography as it is seen today.

EDA are proud to have been able to sponsor a whale shark satellite tag this year teaming up with Al Ghurair Foods for Sharkwatch Arabia. This is a subject that we all strongly believe in and want to see become successful with all the hard work, blood, sweat and tears that have been put into this cause by Jonathan Ali Khan and the Sharkwatch Arabia Team. We thank all the individuals who have called into the EDA office for us to pass along sightings and details for the cause. We will keep you all posted once our satellite tag has been deployed in the next couple of months.

Clean up Arabia had yet another wonderful outcome of support and commitment from neighboring countries. UAE, Oman, Qatar, and Bahrain coordinated their teamwork to accomplish another year of collecting statistics to send to the Ocean Conservancy to be added to their annual international report. Kuwait will join forces coordinating their Clean Up Arabia on the 10th of December which we will cover in our next issue in March. The patronage and participation of HH Sheikh Hazza Bin Hamdan Bin Zayed Al Nahyan made this year's clean up more rewarding, in addition to the full support of the Environment Agency – Abu Dhabi. They provided their resources, full media coverage and helped us make sure that we had a smooth participation. I want also to thank our Clean Up Sponsors; Coca Cola, Dubai Chamber, Dubai Duty Free, Le Méridien Al Aqah Beach Resort, GASCO, ADMA and Body Glove.

EDA has also been very active this year in joining other green/eco events that have been held in the UAE. We are seeing more and more companies come together in reaching the universal goal to become more environmentally friendly in supporting our planet. We've touched the subject through our movie screenings with its strong messages, attended conferences to hear what others are doing to change, joined events to see who else in the UAE are making a difference and

we at EDA have taken action within our office and our homes to make sure we act on what we learn.

One bit of news we are very excited about and want to share, is that our Marine Biologist, Rita Bento has gone and passed her exams to become a Reef Check Course Director. She is now training Ken Atkinson to become a Reef Check Trainer to allow for more students to join the course which has proven to be in high demand. Rita has certified 37 new Reef Check students this year, including myself. It is one course I can honestly say, was worth every moment. I now have a much better understanding of what I see and understand the vital importance of Reef Check as a whole. So I now feel less resentment of losing Rita two whole weeks a year to the EDA/ Biosphere Expeditions to conduct these amazing statistical studies which she recently came back from. We are proud to have her work and teach Reef Check on these expeditions.

With the Christmas and New Year holidays around the corner, we are planning the beginning of next year's EDA events for you which we will release and confirm over Facebook and the EDA website. DMEX is well in place for the 1-5 of March and we will be organizing new movie nights, the EDA Market Day with a twist and some more EDA socials. We also want to give a warm welcome to all our new members who have joined us recently. Welcome to the EDA family. We hope you all have a wonderful National Day, a very Merry Christmas and a Happy New Year! See you all in 2011.

Finally, I want to thank the EDA Team for an amazing year; Reema, Ally, Juma'a, Rita, Raquel, Adel and Mehboob for all their tireless efforts this year. It is a real pleasure to work with them.

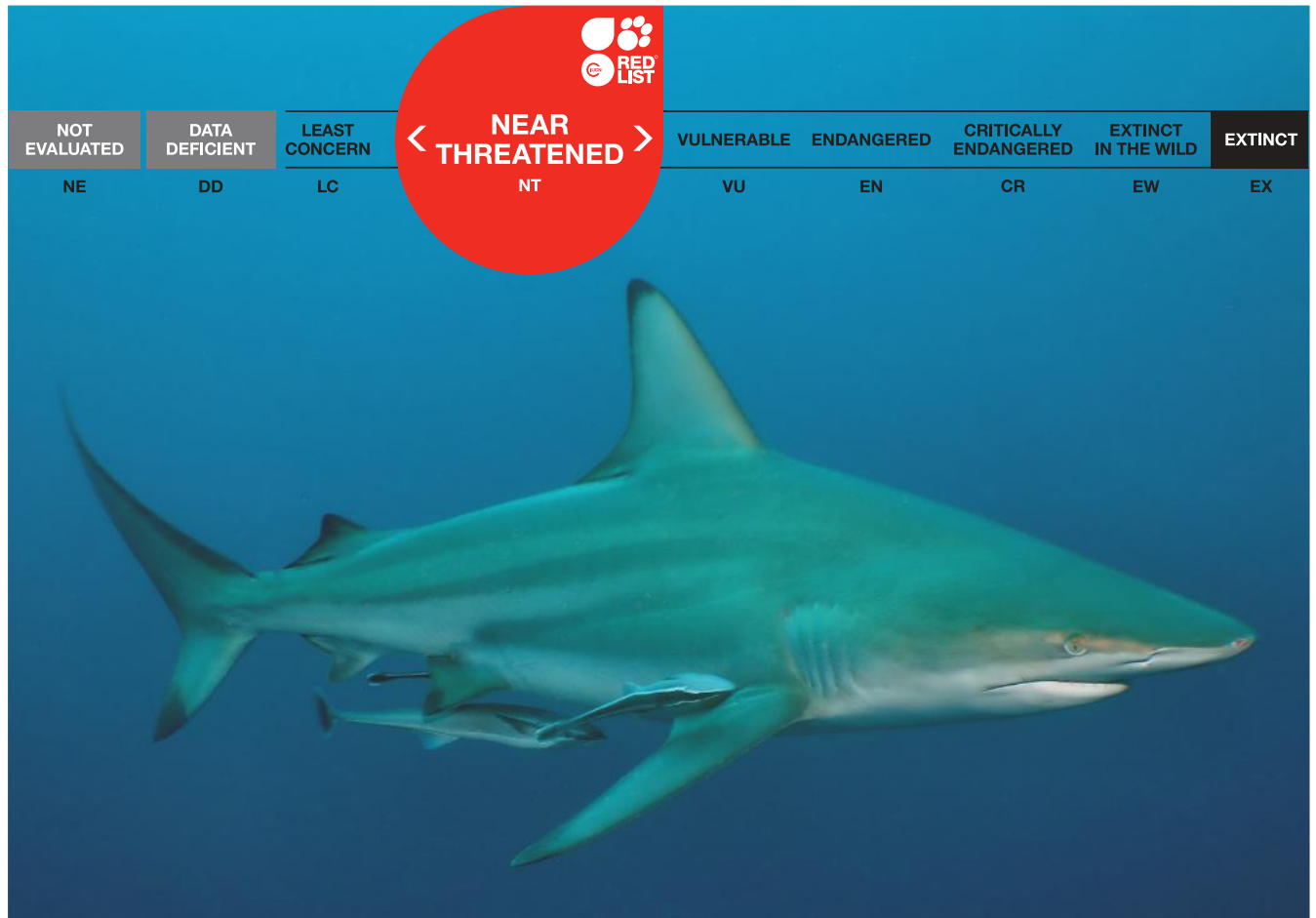
Ibrahim Al-Zu'bi

FEATURED CREATURE

BLACKTIP SHARK

(*Carcharhinus limbatus*)

FEATURE **IUCN RED LIST 2010** – **BURGESS, H.G. & BRANSTETTER, S.** PHOTOGRAPHY **PHILIPPE LECOMTE**



Local Species in the IUCN Red List 2009

RED LIST CATEGORY & CRITERIA: **NEAR THREATENED**

Scientific Name: *Carcharhinus limbatus*

Common Name: Blacktip Shark

Justification: The Blacktip Shark (*Carcharhinus limbatus*) is a modest-sized species that is frequently captured in commercial and recreational fisheries. Its meat is well-regarded and its fins are highly marketable. The Blacktip Shark is widespread in warm-temperate, subtropical and tropical waters throughout the world. It frequents inshore waters as adults and has inshore nursery areas, making it highly vulnerable to fishing pressure and human-induced habitat alteration.

Geographic Range: The Blacktip Shark is widespread in warm temperate, subtropical and tropical waters. Primarily it is a continental species, although it is found around some oceanic islands. In the western Atlantic it

ranges from Massachusetts, United States, to southern Brazil; in the eastern Atlantic it is known from the Mediterranean Sea southwards to central Africa; it is widespread in the Indian Ocean from South Africa to western Australia, including the Red Sea and Persian Gulf; and in the Pacific Ocean it is recorded from throughout the Indo-Australian Archipelago, at oceanic islands such as Hawaii, Tahiti and the Marquesas, and in the eastern Pacific from California, USA, to Peru.

Population Trend: Unknown

Habitat and Ecology: The Blacktip Shark occurs in nearshore waters off beaches, in bays, estuaries, over coral reefs and off river mouths. In the western North Atlantic it migrates north seasonally as far as Cape Cod, Massachusetts and is common year-round in southern areas of the USA. In this region males and females generally remain in sexually segregated schools outside of the mating season and off South Africa there is similar segregation in the local population.

This species commonly occurs in loose aggregations. The Blacktip Shark uses coastal bays and estuaries throughout the south-eastern US as nursery grounds. It has an unusual habit of leaping from the water, rotating as many as three times, and falling back in the water, usually on its back. For this behaviour, as well as its similar morphology, it is often confused with the Spinner Shark.

The Blacktip Shark primarily eats bony fish, but its diet also contains smaller amounts of crustaceans, such as shrimp and crabs and cephalopods. Small-sized elasmobranchs are also consumed in lesser quantities. This shark commonly follows fishing trawlers, consuming discarded bycatch and rarely attacking the cod ends of trawl nets.

The species is placentally viviparous producing 4-11 pups (mean 4-6) after an 11-12 month gestation period. Larger females produce more and larger pups. The females have a one-year resting stage between pregnancies,

making the reproductive cycle a two-year event. In the western North Atlantic, mating occurs in early June through early July; in South Africa it occurs in November and December. Implantation usually occurs during the 10th-11th weeks of gestation (when embryos measure 178-194 mm total length (TL)) and pups are born in late May-early June the next year. Pups occupy specific nursery grounds in shallow coastal waters away from the adult population, which may reduce predatory mortality on the cohorts. Pups are born at 53-65 cm TL. The neonate stage lasts about a month and the juveniles continue to occupy nearshore nursery areas. Neonates increase by 25-30 cm during the first six months, have an annual growth of 20 cm during the second year of life and growth slows gradually through adulthood. This is a very fast growing species compared to its congeners. After reaching maturity, growth is less than 5 cm annually. The oldest fish aged have been 9-10 years of age.

There are regional differences in many biological parameters of Blacktip Sharks. In the western North Atlantic, males mature at 130-145 cm TL (or 4-5 years of age) and most females mature at 150-156 cm TL (or 6-7 years of age). In South Africa most males reach maturity at 146-150 cm pre-caudal length (PCL) and females at 151-155 cm PCL. The smallest pregnant female observed in South Africa was 146 cm PCL. Maximum reported

size of females for the Northwest Atlantic population is 193 cm, with most large females ranging from 175-185 cm TL. Maximum reported size for males is 175 cm TL (128 cm PCL) and most are less than 165 cm TL in this region. In South Africa maximum sizes for both sexes occurs at 190 cm PCL, with modes of 161-165 cm PCL for males and 166-170 cm PCL for females. A female reaching 206 cm PCL has been recorded from the equatorial Indian Ocean. In the western North Atlantic, at approximately 100 cm TL the shark weighs about 10 kg, at 150 cm TL about 25 kg and when nearing maximum size (ca. 180 cm TL) it will weigh almost 50 kg.

Major Threats: In the western North Atlantic this species has long been important in the recreational fishery and now is a primary target of the directed commercial fishery along the southeast coast from South Carolina to Florida and throughout the Gulf of Mexico. It is the second most important commercially landed species in that region after the Sandbar Shark (*Carcharhinus plumbeus*) and its meat is considered superior to the latter species. In the USA, other carcharhinid meat is often sold under the name "Blacktip Shark" because of wide consumer preference for the product. It is a significant constituent of the substantial Mexican shark catch, from both Atlantic and Pacific coasts. Elsewhere, it is the most commonly caught species in the

large Indian fishery, occasionally caught in the Mediterranean Sea driftnet fishery, and surely constitutes a sizeable portion of the catch in smaller scale and artisanal fisheries throughout the northern Indian Ocean and South China Sea. In Australia, it represents a minor component of the shark catch in northern Australia. Blacktip Shark meat is primarily consumed locally and fins are dried and shipped to the Far East where they are used in preparing shark-fin soup. In some areas the hides are utilised in preparing leather and the livers are used to extract oil.

Conservation Actions: The Blacktip Shark receives management in only two countries, Australia and the USA. In Australia, it is one of a suite of species that is collectively managed in the limited-entry fishery of northern Australia. A keystone species in the US Atlantic directed shark fishery, it similarly is managed through a management plan that addresses the entire group of species represented in the fishery. At the time of this writing, species-specific management of the Blacktip Shark in the region was forthcoming.

Citation: Burgess, H. G. & Branstetter, S. 2005. *Carcharhinus limbatus*. In: IUCN 2010. IUCN Red List of Threatened Species. Version 2010.4. www.iucnredlist.org



arabian angel
Diving Institute Enjoy, Inspire and Care

Your Convenience, Our Commitment

Vision

Leading Diving Institute in the Middle East, providing high level Diving Education for all ages, enjoyable and safe Diving Experience.

Services

- Diving Education.
- Emergency First Response Education.
- Diving and Snorkelling Trips.
- Local and Overseas Excursion Trips.
- Dive and Water Sport Retail.

*Come Dive With Us
in Dubai and Fujairah*



EDA GALA DINNER

EDA held their 5th EDA Gala Dinner at the Emirates Towers, Godolphin Ballroom on the 24th of June this year. This was a chance for everyone to put on their fancy clothes and have a classy evening out!

To start the evening off, EDA's Vice Chairman, Mr Essa Al Ghurair made his warming welcome speech to all the Gala Dinner guests which was then followed by the announcement of the winners of EDA's Digital Online underwater photography competition by Marcelo Mariozi, EDA's Voluntary Photo Coordinator. The winning photos were displayed on screen and the prizes were given out to all the category winners with the overall winners as follows: 1st place Gold Winner – Ahmed El Gouza, 2nd place Silver Winner – Domnique Zawisza, and 3rd place Bronze Winner – Dijana Cetinic.

EDA also took the opportunity to thank all its sponsors and partners by presenting them with EDA awards and a raffle draw followed where guests won various prizes which ranged from eco salon treatments from Zen Beauty Lounge to exciting holiday destination packages! Dinner was served and the evening ended with the DJ spinning some classic tunes that got everyone onto the dance floor.

RECEPTION ARRIVALS



SPEECHES AND DINNER



UW PHOTO COMPETITION RESULTS



GOUMBOOK'S FUTURE GREEN

EDA took part in Goumbook's Future Green event on Monday the 1st of November 2010 in Knowledge Village and had a visit from Grade 5 from Raffles International School.

make your
FUTURE GREEN
today

ف.ج

November 1st, 2010
Knowledge Village, Dubai
Conference Centre, 9am-3pm

Visit us and register at: www.goumbook.com/future-green-dubai-2010
Email us at contact@goumbook.com for more information

Goumbook and EnPark invite all Green Businesses and Responsible Consumers to participate and visit FUTURE GREEN - Dubai 2010.

The one-day event will feature companies and products from different sectors including: Education, Energy, Finance, Health, Home&Decor, F&B, Transport, Water & Waste.

Recycling facilities for items such as batteries, light bulbs, e-waste, cell phones and the usual plastic, paper and cans, will be available on site.

Drop off for old books will be held by Volunteer in Dubai in support of the Safe & Sound's Breast Cancer awareness campaign.

| | | |
|---|---|--|
| <p>PLATINUM SPONSOR:</p> <p>MR RESTAMANI Arabian Automobiles</p> | <p>GOLD SPONSOR:</p> <p>NISSAN</p> | <p>SILVER SPONSOR:</p> <p>The Green Transformation</p> |
| <p>Organiser:</p> <p>GOUMBOOK Your Green Connection</p> | <p>Partner:</p> <p>enpark Green & Sustainable A natural fit for business</p> | <p>Media Partner:</p> <p>bgreen</p> |
| <p>Supported by:</p> <p>FUGU Sustainable</p> | <p>DUBAI CHAMBER OF COMMERCE, INDUSTRY & TOURISM</p> | <p>Partnership with:</p> <p>EDA EMIRATES DIVING ASSOCIATION</p> |
| <p>In Association with:</p> <p>meveg</p> | <p>EDU EMIRATES DIVING ASSOCIATION</p> | <p>EDU EMIRATES DIVING ASSOCIATION</p> |

Purified Water, Organic Coffee, Organic Snacks offered by: **Liquid of Life**





SUN & SAND SPORTS
 سن اند ساند سبورتس

Sun and Sand Sports is the exclusive
 Sports Retailer for Body Glove in the UAE



www.BodyGlove.com

MARINE MAMMAL MEDIC COURSE IN UAE

FEATURE **KATHLEEN RUSSELL, AL MAHARA DIVING CENTER AND EDA ABU DHABI COMMITTEE COORDINATOR** PHOTOGRAPHY **KURT DELANDER**

Over 36 participants attended the EDA sponsored Marine Mammal Medic Training Course in Abu Dhabi held at the Le Méridien Hotel.



Have you ever wanted to know how to help a whale or a dolphin or a harbour seal if they got stranded or were found distressed in the water? Some marine mammal enthusiasts gathered together in Abu Dhabi and Dubai and welcomed the experts from British Divers Marine Life Rescue charity-based organisation who flew over and conducted the Marine Mammal Medic Course. Two courses were conducted; one course was hosted by Emirates Diving Association in Abu Dhabi and the other one was hosted by Emirates Marine Environment Group in Jebel Ali. Both courses were well attended with nearly 50 delegates attending. In addition, Emirates Natural History Group hosted a talk about the activities of the BDMLR charity group presented by Stephen Marsh.

Experienced BDMLR trainers, Stephen Marsh and Richard Ilbertson conducted the full day course. The course consisted of a theory session on mammals including the local dugong, physiology, biology, first aid and rescue techniques for cetaceans and a discussion on health and safety for all rescue and training work conducted. I was visualizing having to do rescue breathing procedures and CPR for dolphins, incidentally this was not a recommended step and was told to stay clear of their blow holes if we didn't want to catch any bacterial dispersed mist from when they breathed out. We learned not all stranded cetaceans should be rescued and brought back to the sea. Many of them may return to shore and get stranded again and again; this in fact will prolong their suffering. By the water side, participants learned techniques on how to refloat various sizes of stranded cetaceans on a life size 2 tonne pilot whale model and how to handle and lift and apply first-aid measures for a common dolphin. It took the efforts of 7-8 persons to lift the common dolphin. We had to use a pontoon refloat system designed in New Zealand for the pilot whale.

At the end of the day, all delegates received a Marine Mammal Handbook, 1 year BDMLR membership, a photo ID card, a Marine Mammal Medic woven badge, car stickers and a certificate proving that we have done the course. It was a memorable day and our next step is to establish a national stranding network so we can involve dedicated volunteers and assist where possible if any eventual stranding. Maybe one day, you or I will save the life of a marine mammal, now wouldn't that be great?

If you are interested in participating in a marine mammal medic course for next year or if you want to be involved in helping with the stranding network, please let us know so we can invite the BDMLR trainers back.

Contact Kathleen Russell at info@divemahara.com or EDA at projects@emiratesdiving.com.



From left to right: Keith Taylor from Emirates Natural History Group, Stephen Marsh (BDMLR Marine Mammal Medic Trainer), Richard Ilbertson, Kathleen Russell (EDA Abu Dhabi and Al Mahara Diving Center).



DRAGON BOAT RACE



Congratulations to the EDA Dragon Boat team who paddled valiantly in the 3rd Abu Dhabi Dragon Boat Festival held in November at the Shangri-La Hotel, Abu Dhabi. Over 70 teams participated in various categories. EDA team competed in the mixed social corporate and ranked well in the overall standings.

We hope to show off our prowess and strength in the next Dragon Boat Races. On behalf of EDA, we'd like to thank all the EDA members who made the commitment to go to the practises and compete in the EDA Dragon Boat Team. If you would like to participate in future competitions, please contact us at projects@emiratesdiving.com or contact Kathleen Russell at info@divemahara.com.



THE SCUBA DIVER ASSISTANT

INTRODUCING THE UEMIS ZURICH, SMART DIVE COMPUTER
FEATURE **KATHLEEN RUSSELL, AL MAHARA DIVING CENTER LLC**
AND **EDA ABU DHABI COMMITTEE COORDINATOR**

Modern day technology allows us to carry around a smartphone or a smart card or an advanced PDA system which allows us to pretty much do what we want with information technology and be connected 24/7. In the diving realm, I have come across, through an introduction from one of my dive instructors, a dive computer that lives up to its name; the Uemis Zurich Scuba Diver Assistant aka SDA. With smart technology from Swiss developers, this dive computer does more than just be your dive companion underwater. It's a stylish dive computer with a wonderful crystal clear full colour display, wireless air data transmission, high performance solar cell, battery and usb port to keep the battery going and great database, 3-way non slip sliding control, text input and storage capacity to name a few features. The many great characteristics goes on with high performance and of course, they come in an array of colours including pink. Who said colour is not important when it comes to computer selection.

I took my Uemis to Cyprus and tested it on the Zenobia, alongside with another dive buddy, Don Blackman. Definitely when penetrating the wreck, I had a clear display of all the vital data for the dive including the specific 3 colour display concept of green is good, orange means attention and red is the big warning. This secure and clear way of identifying the limits is visually imperative for divers especially some divers who have difficulty seeing small visual alarm warnings flashing on the tiny display screen of some dive computers. I couldn't lie about anything as everyone can see if I had any warning signs such as coming close to a no decompression limit, the unit starts flashing and beeping at me. Another key feature is the full synchronization with my Uemis' web based account. This allows me to update anywhere and anytime as long as I have internet access. The storage, text input and 2000 dive capacity makes this a desirable carry around logbook. While in Cyprus and the Maldives, I entered pre and post dive details including lots of information about my dive buddy. This feature extends to in-water dives which informs me of my buddy's most important data including air pressure, enriched air mix, partial pressure of oxygen and air consumption.

Overall, this is a versatile and visually pleasing dive computer especially with all the colour options and the data texting I can do above water. The quick travel charger and the solar panel give me flexibility in power management and make me feel aptly environmentally conscientious, a nice feel good factor to this dive gadget. I'll be diving with this pink beauty for a while longer.

Al Mahara Diving Center is the Uemis Zurich dealer in the UAE. For more information on this product, please contact them at info@divemahara.com.



UEMIS

UNDERWATER JOUHEMENT
MADE IN SWITZERLAND

The Underwater Revolution!

uemis Zurich

The world's most user friendly dive computer.





OCEANS MOVIE SCREENING

Under the patronage of HH Sheikh Hazza Bin Hamdan Bin Zayed Al Nahyan, and as part of the Clean Up Arabia campaign, EDA screened the movie 'Oceans' on Wednesday 3rd of November in Abu Dhabi, at the ADMA Opco auditorium, with the generous support of ADMA and EAD.

The movie which was directed by Jacques Perrin and Jacques Cluzaud, took the audience on a thought provoking journey through the stunning underwater world, full of elusive stunning underwater creatures. The incredible state-of-the-art filming took everyone's breath away as they left the auditorium with thoughts of the amazing images they had just seen.



WORLD GREEN TOURISM

22 - 24 November 2010 | ADNEC | Abu Dhabi | UAE

The first conference and exhibition dedicated to responsible and sustainable tourism was held in Abu Dhabi on the 22 - 24 November. The event host sponsors, the Abu Dhabi Tourism Authority and the Environment Agency of Abu Dhabi gave their support and commitment to a truly green tourism sector.

Inspired by the work already being done in the region, World Green Tourism offers a platform where global experiences, technologies and methodologies can be shared, bolstering the move towards greener tourism. The debates, the seminars and engagement with exhibitors, sponsors and international guests and international speaking panels gave immediate credibility to the whole event.

Richard Quest, Anchor and Correspondent for CNN International opened the session with the audience when EDA went to visit the event on Day Two - Tuesday, 23 November. The conference programme had many valid and interesting speakers from all over the world which led to interesting facts and debates.

www.worldgreentourism.ae



DIBBA MANAGEMENT PLAN PROJECT



In 2008, EDA started collecting data in the Dibba Marine Protected Area (MPA) in order to understand the status of this area and the threats it was facing. Dibba was established in 1995 together with Dadna and Al Aqah as the first three UAE marine protected areas under the instruction of His Highness Sheikh Hamad Bin Mohammed Al Sharqi, Supreme Council Member and Ruler of Fujairah.

In the preliminary report of 2009, EDA was able to identify from the total 168 species recorded in Dibba MPA, 22 species listed on the Red List of endangered species of the international Union for Conservation for Natures (IUCN) and 17 species in the appendices of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The presence of several threatened species in Dibba MPA highlights the importance of the area for the conservation of UAE marine biodiversity and its potential for further studies on the species and habitats. Anthropogenic matters needing an urgent management were also identified such as pollution, invasive species, coastal development, commercial and recreational fishing, tourism, and legal and institutional issues.

In 2010, a final suggested management plan for Dibba MPA was presented by EDA Executive Director, Ibrahim Al-Zu'bi, to representatives and heads of Dibba Fujairah Municipality, Ministry of Environment and Water, Fishermen Associations and Emirates Foundation. It was a mutual agreement that a management plan for Dibba MPA should be applied and that a Committee should be created to discuss the management plan for further implementation as well as the creation of an emergency plan for natural and anthropogenic disasters. The categorization according to international standards (i.e. IUCN category) as well as the update and institutionalization of the current legal framework will benefit Dibba MPA tremendously. The application of a management plan will help to overcome the principal problems encountered by Dibba MPA, such as the lack of available data on natural resources, the absence of proper fixed

and marked boundaries, the lack of patrolling and guarding, the vague legislation and institution mandates, the poor public awareness, and the non-use of a protected area for research purposes.

For the accomplishment of the Dibba Management Plan project, EDA would like to thank the support of Emirates Foundation, Fujairah Municipality, Dibba Environmental Research Centre, Dr. Christophe Tourenq (EWS-WWF), Maral Shuriqi (Environment and Development Department of Fujairah Municipality), Nomad Ocean Adventures and The Palm Dive Centre.



STATE OF THE ART SHIP ENTERS HONOLULU PORT SEMISUB TURNS THE OCEAN INTO REAL 3-D EXPERIENCE



November 4, 2010, Honolulu – After nearly 10 years and \$15.5 million in the making, a revolutionary new tourism boat is poised to forever change how people experience the ocean.

The brainchild of a former Vietnam Naval officer, Semisub One is part yacht, part dining experience and part submersible. With the push of the button, families get a face-to-face underwater encounter with the most exotic sea and coral life in the world, all while sitting in theater-style seating.

The unique ship design is one of the latest innovations in the competitive multi-billion-dollar tourism industry eager to attract families and tourists with new forms of ocean adventures and entertainment. After arrival at any desired offshore site, Semisub's air tanks are activated to gradually sink the hulls into the water, allowing 44 passengers to view ocean life through a patented glass design that allows an unobstructed view of the ocean as if you were looking through a sliding glass door.

"It's like staring into an aquarium, only you're looking at whales, sharks and multi-colored fish that you're lucky to see in a lifetime," said Semisub One inventor and CEO of Semisub, Inc., Curtiss Jackson. "I call it a 3-D ocean experience."

Jackson is no stranger to ships. He was a Navy Lieutenant during the Vietnam War and used his engineering expertise to develop the first submersible passenger vessel called the Maui-E-Ticket. For more than a decade it remained one of the most popular tourist attractions in Maui, until it was destroyed by a hurricane while sitting in port. Jackson vowed to use all the knowledge he gained designing and operating his first ship to create a first-class ocean experience both above deck and below. But he wanted to do it in a way that "respected the ocean."

"I spent so much time at sea in my life, I sort of see myself as a creature of the ocean," explained Jackson. "That's why I insisted that Semisub use the latest environmental technology, such as biodegradable fuels and materials. Everything has to be ship shape."

According to Jackson, the first-class experience costs just \$89.00 per ticket and is delivered on three different decks. The top deck is for luxury dining, while the middle deck offers a classy bar area and multiple flat screen TVs connected to underwater cameras. The lower deck is Semisub's main attraction, the underwater show. But to Jackson, a life-long ship-building buff, the real beauty lies in what tourists won't see.

"We built Semisub entirely out of aluminum and gave it a sleeker hull. And then we dropped in two massive C32 Caterpillar marine engines," Jackson said, his eyes sparkling. "That makes us go faster and our gas last longer so we can reach whale-watching areas and coral reefs that are out of the range of most other boats this size." The best feature is the 42,000 watt of underwater lighting that shoots light 125 feet down and around for night-time viewing. One will be able to scuba dive at night with their family and friends.

While Jackson anticipates a brisk tourist business for Semisub, his ultimate goal is to sell his patented ship design to other top beach resort tourist destinations. "A lot of the parts on this ship were painstakingly designed and customized with the ultimate sea-viewing experience in mind," noted Jackson. "You can't go out and buy this stuff off the shelf somewhere. It took years to design," he added.

"We already have interest from the Bahamas to the Great Barrier Reef said Jackson. Can you imagine sitting back in a seat with a glass of wine and looking at the sea creatures underneath the Great Barrier Reef; I mean so close that you feel you can touch them," he exclaimed. "Now that's entertainment."



SPLENDID LUXURY, WORLD-CLASS DIVING, AMAZING PRICE!
ADDU ATOLL, MALDIVES
DISCOVER ORIENT HOLIDAYS

7D6N: Addu Atoll, Maldives
DATES: 12-20 February 2011

Discover Orient Holidays is pleased to announce an amazing offer for a dream diving holiday in the Maldives at a very affordable price. Escape away to the picturesque island paradise of Addu Atoll with its soft sandy beaches, warm sparkling blue water, magnificent blue skies and world-class diving. Enjoy all the luxury the Maldives has to offer with beachside resort accommodation and guided boat diving to all the best sites around the atoll. Non-divers are welcome too. For all enquiries please contact Discover Orient Holidays. Don't miss out!



Addu Atoll is the southernmost atoll of the Maldives and the only atoll south of the equator. It's a heart shaped atoll consisting of 23 islets of which 6 are inhabited and connected by bridges, surrounding a stunning turquoise lagoon. A diver's dream destination with over 24 dive sites, superb coral reefs, walls, overhangs, caves, the lagoon and palm fringed sun-kissed beaches. All dive sites offer outstanding aquatic life with whitetip sharks, nurses sharks, turtles, eagle rays, fusiliers, napoleon wrasse, lionfish, moray eels, seafans, hard, soft and table corals. The star attraction is the large 5m wingspan manta rays which divers can swim alongside as they glide into cleaning stations to allow angelfish and wrasse to clean them.

FAMOUS DIVE SITES:

Addu Atoll offers diving for both novices and advanced divers on the inner atoll reef within the lagoon or on the outer atoll reef in the ocean. Within the lagoon divers are protected from currents and so this is the perfect place for novice divers and snorkelers to enjoy the marine life. On the outer atoll reef advanced divers will enjoy a variety of superb diving with drift dives, wall dives, overhangs and caves. Visibility is generally excellent at around 30 metres.

Kuda Kandu Corner is one of the most popular dive sites in southern Maldives. It is a slow drift dive on the Kuda Kandu Channel with the reef sloping between 5m and 30m. Divers will commonly encounter green turtles, seafans, napoleons, snappers, clownfish, groupers, triggerfish and a variety of different coloured nudibranchs. The reef is stunning but always keep an eye out into the blue to see passing eagle rays, whitetip reef sharks, nurse sharks and schools of barracuda.

The British Loyalty is a 140m long and 20m wide World War II oil tanker torpedoed by a Japanese submarine and is now resting on its starboard side at a depth from 16m down to 30m. The wreck features magnificent array of both hard and soft coral growth along with excellent visibility. Divers can penetrate the wreck through the torpedo holes in the hull and easily access the engine room. Aquatic life seen around the wreck includes large sea turtles, triggerfish, wrasse, parrotfish, clownfish, angelfish, bannerfish and blue-fin trevally.

For more information, please email info@dohdubai.com
or call Simon +971 (0)50 909 7385 / Fei Chin +971 (0)55 916 2639

EXPERIENCE THE ADRENALINE OF SHARK DIVING!

ALIWAL SHOAL & SODWANA BAY, SOUTH AFRICA DISCOVER ORIENT HOLIDAYS

8D7N: Aliwal Shoal & Sodwana Bay, South Africa
DATES: 11-18 March 2011

South Africa offers exciting adrenaline packed diving with ragged tooth, tiger, hammerhead, bull, copper, thresher, bronze whaler and blacktip sharks! Get your heart pumping as you find yourself surrounded by these truly magnificent creatures. Take some time between dives to explore nearby game reserves for land creatures including Africa's Big Five!

Accessed via Durban on the KwaZulu-Natal coast, Aliwal Shoal and Sodwana Bay features outstanding reef, wreck and large aquatic life dives. Aliwal Shoal is a 4km long rocky reef located approximately 5km off the KwaZulu-Natal coast and is a famous destination for exciting shark encounters. Sodwana Bay is located in the world heritage site of Greater St Lucia Wetland Park and offers an explosion of biodiversity both above and below surface. Above surface are over 340 species of bird and large mammals including elephant, buffalo and rhino. Beneath the surface there are an incredible 1200 species of fish along with sharks, bottle-nose dolphins, turtles, whale sharks, humpback and southern right whales.

FAMOUS DIVE SITES:

Aliwal Shoal was formed thousands of years ago from fossilized sand dunes and is now beach rock with plenty of sea life and a breeding ground for sharks. Across the shoal there are plenty of dive sites to explore including reefs and wrecks. The Cathedral and Raggies Cave are popular sites to observe large numbers of ragged tooth sharks. Along the inside edge diver's can find octopus, scorpionfish, firefish, cowfish, nudibranchs and eels. Along the outside edge schools of hammerhead, gamefish and the odd tiger shark may be found.

Sodwana Bay is the southernmost coral reef system in the world and is considered the mecca of South African scuba diving. Dive sites are located on Quarter Mile Reef, 2 Mile Reef, 5 Mile Reef, 7 Mile Reef, 9 Mile Reef and Stringer Reef. A stunning diversity of aquatic life is fed by the Agulhas Current as it runs up the east coast of Africa.

FAMOUS GAME RESERVES:

Hluhluwe Umfolozi Game Reserve is the oldest game reserve in Africa having been established in 1895 and is where Zulu kings put in place the first conservation laws. Africa's Big Five can all be found stalking the savannah: lion, elephant, leopard, buffalo and rhinoceros.

Tembe Elephant Park is located on the border with Mozambique and is home to 220 of the largest elephants in the world. This large herd roams across 300km² of pristine wilderness along with the other Big Five, hippo, serval, eland, zebra, giraffe, hyena, jackal, wildebeest, nyala, kudu, water buck, reed buck, red duiker and warthog.



For more information, please email info@dohdubai.com / doh.dubai@gmail.com or call Simon +971 (0)50 909 7385 / Fei Chin +971 (0)55 916 2639

GOVERNMENTS TO ACT ON OCEAN INDUSTRY IMPACTS THROUGH INTERNATIONAL TREATY

NEWS RELEASE

Shipping, Fisheries, Aquaculture, Tourism, Mineral Extraction, Other Marine Activities under Scrutiny at Biodiversity Convention's Inter-governmental Meeting 18 October 2010 – Governments will decide on measures to minimize the impacts of human activities on the marine environment at the UN summit on biodiversity - the Convention on Biological Diversity (CBD) - which opens today in Nagoya, Japan. The conference document describes the "urgent need to assess and monitor the impacts and risks of unsustainable human activities on marine and coastal biodiversity". It requests governments to adopt measures to prevent significant adverse effects from unsustainable human activities in marine and coastal areas, including identifying and assessing threats to biodiversity in the high seas. The CBD is one of the most widely supported international treaties, ratified by 193 countries. It addresses the conservation and sustainable use of species and ecosystems and has become the primary vehicle for high level marine conservation policy-making for both EEZs and in "areas beyond national jurisdiction". The CBD meeting in 2010 will especially be seeking to advance the use of environmental impact assessment (EIA) and strategic environmental assessment (SEA) for activities which may have significant impacts on biodiversity in national and international waters. These impact assessment tools would be coupled with actions to identify "Ecologically or Biologically Significant Areas", using selection criteria for such areas that were adopted by governments at the previous CBD conference. The CBD's actions to address impacts to marine and coastal biodiversity potentially affect all commercial ocean users. Unfortunately, the wide array of industries operating in the marine environment have been little involved in CBD discussions leading to major decisions, such as determining how marine protected areas will be selected. The World Ocean Council (WOC), as the only international, cross-sectoral business leadership alliance on ocean sustainability, is now addressing this by engaging with the CBD on behalf of responsible ocean businesses. The WOC is monitoring CBD developments and provides detailed review and analysis for its membership, which includes shipping, oil/gas, seafood, tourism, mining, and other ocean industries. Paul Holthus, WOC Executive Director, states, "It is critical that the diverse ocean business community is engaged in international policy developments that affect their access and use of ocean space and resources. The WOC will be at the CBD Conference of Parties as an official observer for this purpose."

"The participation of ocean sustainability leaders from the private sector is vital to successfully developing reasonable, balanced, science-based marine conservation measures, especially in the high seas," Holthus continued. "Responsible ocean industries must be engaged in the CBD process to understand the issues and concerns of other stakeholders and take a leadership role in ensuring the health of marine ecosystems. Input from the ocean industries and science-based information on marine activities and their effects is essential to meaningful decision-making on ocean use." The WOC is engaging with the governments and NGOs at the CBD in several ways to ensure they are aware of the Corporate Ocean Responsibility leadership efforts of WOC members. For example, the WOC will be convening an official side event at the CBD conference - "Ocean Industry Leadership in Addressing Marine Biodiversity Challenges" (October 25th, 18:15-19:45). Engaging the business community is a major focus of the 2010 CBD. The Nagoya conference will highlight the recently released report, The Economics of Ecosystems and Biodiversity. This major review documents the annual economic impact of biodiversity loss to be \$2 to \$4.5 trillion and makes the business case for protection of natural habitats and ecosystem services. Businesses should be scanning the horizon for material risks, notes PricewaterhouseCoopers, a large consulting firm, highlighting that biodiversity is now clearly identified as a material risk and companies need to know if they are resilient to that risk. Adding to the business case for tackling biodiversity loss, a recent report from Allianz, a major insurance company, indicated that the destruction of nature could be even more costly than greenhouse gas emissions.

The World Ocean Council is the international, cross-sectoral industry alliance for private sector leadership and collaboration in ocean stewardship. Membership is open to ocean industries committed to addressing the challenges of Corporate Ocean Responsibility. Companies and associations worldwide are distinguishing themselves as sustainability leaders by joining the WOC as Founding Members in 2009/2010.

WOC members to date include almost 30 leading companies and associations from a wide range of ocean industries: oil and gas, shipping, marine science, ocean technology, seafood, tourism, maritime law, marine environmental services and others.

Contact: Paul Holthus +1 (808) 277 9008
paul.holthus@oceanCouncil.org / www.oceanCouncil.org

ABU DHABI BREAKWATER

FEATURE **EMMANUELLE LANDAIS** – THIS ARTICLE WAS FIRST PUBLISHED IN GULF NEWS

Less than 1.5km separates Ras Ghanada coral reef, the largest and most diverse coral community in the Arabian Gulf situated off the coast of Abu Dhabi, from what will become the biggest industrial zone in the world.

With plans to build a 417-square-kilometer Khalifa Port and Industrial Zone (KPIZ), an area two-thirds the size of Singapore, just hundreds of metres from the reef the Abu Dhabi Ports Company have invested \$240 million (Dhs 882 million) to build a 9km breakwater to protect it from potentially damaging shipping traffic.

The breakwater partly aligns a 16km dredged channel to allow vessels to enter the offshore port built on an island. The port is accessible by a 1km bridge, the second longest bridge in the UAE. The longest bridge currently links up the world's biggest one-site aluminium smelter in KPIZ to its own berth in the port, and measures 1.6km.

Sixty kilometers from Abu Dhabi city almost bordering Dubai, the Ras Ghanada reef off the shores of Taweelah hosts some of the hardest corals in the UAE, weathering extremely hot temperatures and shallow, saline waters.

Tony Douglas, Abu Dhabi Ports Company chief executive officer said the location of KPIZ is 'strategic' and dominated by the need for power from Taweelah power plant.

"The need to be in the proximity of a power station and sea water cooling narrowed down the land available for possible locations," he told Gulf News ahead of his first familiarization dive on Ras Ghanada last week, four months into his post. "The port island is 4.5km offshore connected by the longest bridge in the UAE. The proximity of the reef is amplified because of the sizes we're talking about but we've made sure we could carry out the reclamation whilst maintaining the ecosystem."

"Serious hydro-engineering has gone into the construction of the port and bridges so the integrity of the reef will not be affected and these measures have worked. The breakwater is a huge civil undertaking," he said.

The reef is inaccessible to recreational divers but has been the site of scientific study since 1995.

Dr Sam Purkis and Dr Bernard Riegl, marine biologists from the National Coral Reef Institute in Florida have been conducting quarterly assessments since 2008 to observe the effects of KPIZ's development on sensitive corals and seagrass.

Up to fifty percent coral cover has been recorded on the 7km long reef which stretches 5km wide. In comparison, reefs in the Florida Keys have 2.5 percent coral cover.

"Our first dive on the reef was in 1995. We immediately saw what a healthy state it was in. It's an incredible eco-system and compares to many of the finest sites in the world. It really is something the UAE should be proud of, and we are passionate in our belief it's worth fighting to protect," said Riegl.

Around thirty five coral species exist in the Arabian Gulf and forty percent of them are on Ras Ghanada. Several species that uniquely occur in the Gulf can be found in the area, such as table coral (*Acropora downingi*) and massive columnar coral (*Porites harrisoni*).

While the financial value of the reef cannot be calculated, its environmental value is priceless said Riegl.

"On our dives so far this September, we've noted a vibrant and healthy eco-system which is doing very well. The coral system is being helped massively by the breakwater, which is playing a major part in protecting the delicate reef and its hugely rich and diverse marine life. The breakwater is worth every single dirham that's been spent on it," added Purkis.

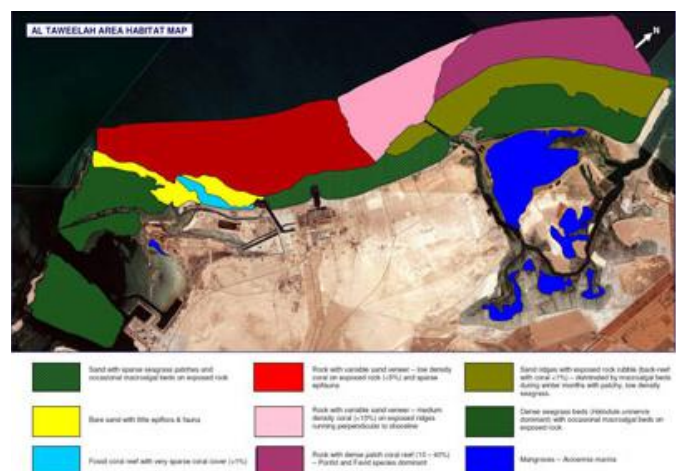
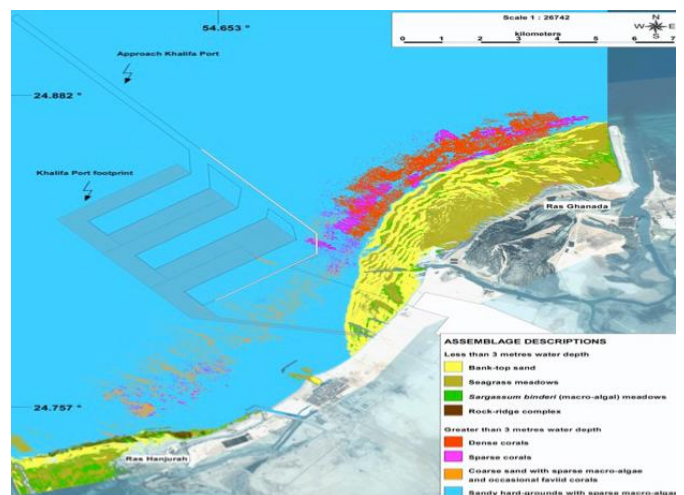
He and Riegl have been able to monitor the reef with satellite imagery, a network of 85 video monitoring stations and 41 photo transects to record high-resolution images of the coral species.

Since dredging for shipping lanes and construction began for the port after the breakwater was completed, the reef 'practically hasn't changed' said Purkis. Dolphins, sharks and turtles have also been sighted off the reef.

Khalifa Port and Industrial Zone (KPIZ) will be four times bigger than Abu Dhabi Island.

As the largest integrated industrial zones in the world KPIZ will host aluminium, petrochemicals, steel, engineered metal and other major sectors.

When it opens at the end of 2012, the port will be able to handle two million containers and nine million tons of general cargo per year. By 2030, that amount will have risen to 15 million containers and 35 million tons of general cargo per year.





SCUBA CLEAN UP: AN UNDERWATER VOLUNTEERING EXPERIENCE

On the 22nd of October, fifteen volunteer divers from Standard Chartered Bank went into the waters off Jumeira Beach and scoured the ocean floor in search of litter and trash that have been polluting the area. Donning scuba diving gear, armed with net bags and guided by dive instructors, the team managed to collect a variety of trash from plastic bottles, small carpets to beer cans.

The SCB divers met at Jumeira Open Beach around 2pm. After registration, a briefing was conducted by Dive Instructors and Rescue Divers from the Filipino Scuba Divers Club (FSDC), on the search patterns to be performed. The group was split into 2 teams: the Green team and Blue Team. The former to search the northern part of the area, while the latter, the southern. The teams then put on their wet suits and tanks and went to the water. Although visibility conditions could have been better, the divers still managed to find all sorts of trash to recover.

On the beach shore, another team of volunteers, (who also assisted in the handling of the scuba equipment earlier) went all over the beach area to pick up trash of irresponsible visitors. The shore volunteers collected enough rubbish to fill several trash bags.

At the end of the dive, and after the beach clean-up, the whole group gathered together to partake in some snacks and refreshments, some of which were donated by the volunteers themselves.

After the group posed for photos with the collected garbage, everyone went away with smiles, delighted and satisfied. Not only did they participate in the first ever SCB scuba clean up in the UAE, but they went away fulfilled, knowing that they were able to utilize their skills into doing their part for the environment



ATLANTIS DIVE CENTRE PADI PROJECT AWARE INTERNATIONAL CLEAN UP



The Atlantis Dive Centre would like to say a big thank you to Ernesto, Glen, Junior, Orlando, Saadiri, Enrique, Jose (from Dolphin Bay), Darren Hodge and the Saayman family, Steven, Lauretha, Xanita and Zaine who all volunteered their time to join the Atlantis Dive Centre and PADI Project Aware International Clean up that was held on the 25th of September.

The conditions were perfect for diving and most of all, the biggest target of the clean up was met with flying colours. The masses of fishing nets snagged around the wreck on the SMB were successfully removed.

Armed with lifting bags, garden shears, mesh bags and knives, the team managed to successfully cut away 2 big nets that had been caught on the wreck for years.

Well done to all and thank you for sparing your time.



DIVERS, ONE FOR YOUR DIARY:

Join the team at the Atlantis Dive Centre for the next PADI International Clean Up on the 25th September 2011.

ATLANTIS DIVE CENTRE BECOMES AN INTERNATIONAL YACHT TRAINING FACILITY



The Atlantis Dive Centre has teamed up with Marine Concepts to become an International Yacht Training Facility and are the only facility in the world to offer this course at present. The syllabus has been written by Marine Concepts in partnership with the Atlantis Dive Centre.

Courses will be held at the Atlantis Dive Centre making the most of the ideal classroom facilities and water conditions within the crescent to perfect your boat handling skills.

WE OFFER THE FULL RANGE OF THE FOLLOWING COURSES:

- IYT Personal Craft
- IYT Small Power Boat & RIB Master
- IYT Bareboat Skipper (Power)
- IYT VHF Radio Operator
- IYT Master of Yachts Coastal (Power)
- IYT Dive Boat Master Level 1 & 2 (Power)

The Dive Boat Master course is one that will interest a lot of divers out there in the industry or thinking of getting into the industry.

The concept was to develop a course that met the demands a dive boat skipper requires. Working with PADI and Dive Centres throughout the world, the IYT developed an internationally recognized qualification.

The first level allows you to operate vessels up to 24 meters and in brief covers:

- VHF & Radio Communications
- General Engineering
- STCW 95 Basic Safety Training
- Theory – Nautical, Health & Safety
- Practical Sessions

To take part in the Dive Boat Master course you must be a PADI Divemaster or equivalent.



For more information about any of the courses, please call Jason at the Atlantis Dive Centre on +971 (0)4 426 3000.

ATLANTIS DIVE CENTRE NEW HOUSE REEF

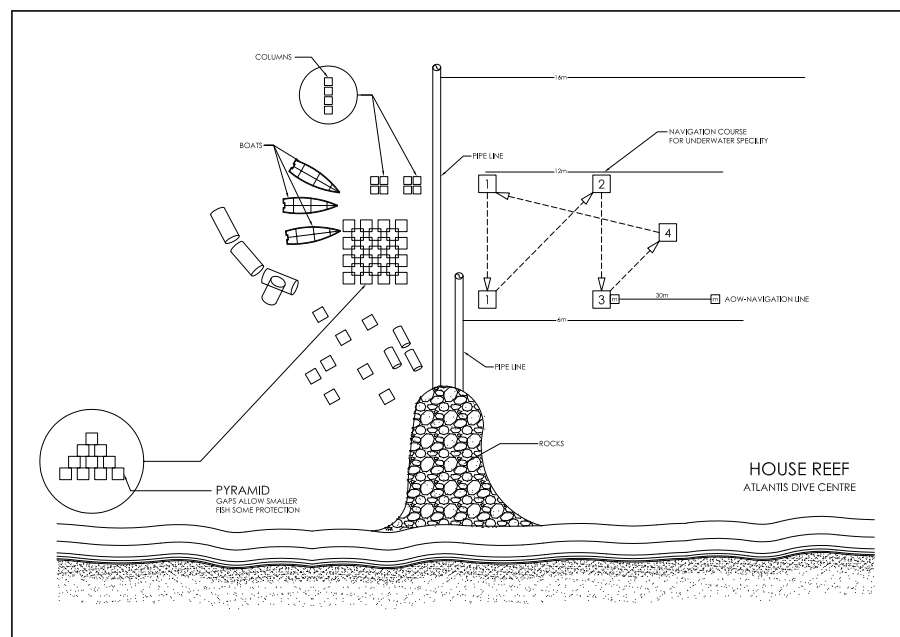


A once empty seabed within the Crescent is now teeming with marine life thanks to the brainchild of Atlantis Dive Centre. This man-made pyramid shaped reef, boasts a vibrant marine habitat to 9 species of fish presently and offers divers an exclusive opportunity to dive depths of 6m to 14m just a stones throw from the Atlantis Dive Centre.

Counseled by two marine biology experts and with the extensive efforts of the Atlantis Dive Centre team and their volunteers, the reef provides an excellent three dimensional dive site. An early morning dive-through is recommended for opportunities to monitor active shoals of fish and meet King George – resident hammour and reef boss. Other sightings have included the rare Cow-Nose Ray which can grow up to 45" as well as seahorses – which are an indicative of a secure environment.

Educational programs have been developed that centre around reef activity and include opportunities to become National Geographic Divers as well as Underwater Photography and Videography specialists. Divers are sponsored to develop their skills and are welcome to visit the reef as often as they like with no charge. Reef Monitoring Activity is also encouraged and students may wish to use activities for their educational credit requirements.

The House Reef welcomes all divers at all times and is not necessarily reserved for those participating in a program. Therefore if you or your child would like to get involved please call the dive centre on 04 426 3000.



SHOPPING

I am not talking about malls with screaming kids and no where to park!

In October, The Atlantis Dive Centre teamed up with the wonderful Stephanie at Scuba Dubai. The shop now stocks the full range of Scuba Pro equipment and all the Trident gadgets we all love to buy and they make for great stocking presents!

Also, we now stock Dive Rite dive equipment and Fourth Element casual clothing. So if you're stuck for an idea for Christmas presents, we promise we may have the answer for you, plus Christmas Music and some pretty good coffee (unless Jason makes it).

If you're free Christmas Eve at 9am, come and join us on our Santa dive to raise money for 'Deptherapy' a very worth while charity for injured soldiers (UK & USA) from Afghanistan and Iraq conflicts, who through learning to scuba dive are rebuilding their lives.

Please find out more by going to www.deptherapy.co.uk



100% OWSI

'They have gone and done it...they have all passed!'

The Atlantis Dive Centre became an Instructor Development Dive Resort in July and I have been overwhelmed by the numbers who said they wanted to sign up for our first IDC, so a massive congratulations and thanks go to;

Fiona, Wassam, John, Rania, Don, Steve K, Steve J, Mark, Lisa, Jodie, Shana, Rania, Jean Marie, Rob and Wilna.

I am so happy to say they ALL passed the IE to become Open Water Scuba Instructors.

Paul, I and the Atlantis Dive Centre team are very proud of you all. To get such wonderful comments from the PADI examiners is credit to your hard work and commitment. Really... well done guys, you rocked.



FREE EANX

Since mid November, the Atlantis Dive Centre has been able to offer free EANX for all our EANX certified pleasure divers.

In partnership with the PADI promotion, the Atlantis Dive Centre offers 5 specialties for the price of 4. So it's great to see a lot more divers becoming Master Scuba Divers and then starting their Divemaster course.

Those who have started their Dive Master and their Instructor program as Master Scuba Divers have all said they found it a lot more beneficial.

The proof is in the pudding so to speak as big congratulations go out to Mark and Lisa who recently became OWSIs. They were the first two from the Atlantis Dive Centre to go all the way through the PADI system MSD – DM – AI – OWSI and they are now on their MSDT program.

DIVE TRAVEL

FROM THE SAND TO THE ICE, AND THE JUNGLE IN-BETWEEN

AI Boom Diving is arranging a number of exciting dive trips in 2011, taking our diving from the desert to the Arctic Circle, tropical islands to the jungles of Borneo!

On the 30th November, AI Boom Diving will host an information session at Cactus Cantina, so come along for some spicy food, spicy beverages and spicy dive plans!

DECEMBER 2010

Join the dive weekend getaway from the 9th to the 11th December 2010 (Thursday to Saturday) for two days of diving at the Dayminiya Islands off Muscat. The Dayminiya Islands are known for their aquarium-like conditions with hordes of reef fish and good visibility.

Prices for accommodation and dives are around: Dhs 1,300 per person, single, with dives and Dhs 800 per person sharing, with dives and sharing accommodation

FEBRUARY 2011

A once-in-a-lifetime experience to the "Arctic Circle in Russia" where we will ice-dive with Beluga whales in this amazing landscape. All accommodation, meals, hot spa and dives are included for an estimated Dhs 7,000, and air tickets/train tickets for a total trip price of around Dhs 12,000 (to be confirmed!).

Departing on the 20th February and returning on the 27th February 2011, this will be a trip to talk about for months after! The PADI wetsuit diver is a requirement, and the course will be run at AI Boom Diving prior to the trip.



MAY 2011

To warmer climates, and for another great adventure trip, join the "Philippines Trip to Cebu" for five days of superior diving, and one day of zip-lining and caving. The trip will be for one week in May, and will cost around Dhs 6,000 including shared accommodation, air tickets, meals, dives and the zip-lining adventure day (to be confirmed!).



JULY 2011

Living in Dubai means that we can take the warmer temperatures and are not scared to venture out of the air-conditioning in the summer months. Especially for great rates and an all-inclusive dive trip to Muscat!

Further details to be confirmed, but this should be slightly cheaper than the December Oman trip.

SEPTEMBER 2011

Diving in Salalah in Oman is now possible and is rumoured to be unspoilt and well worth the visit!

Over a long weekend, fly to Salalah, stay at beach villas, and enjoy undiscovered diving sites. It sounds too good to miss.

Pricing to be confirmed.

OCTOBER 2011

Diving in Malaysia, just off the island of Borneo, is a treat. Rated as one of the Top 5 places to dive in the world, there is no excuse to miss this one. Staying on Mabul Island, close to the Sipidan Island reserve, with three boat dives and one beach dive daily, all meals, and shared accommodation, makes this an easy and rewarding trip. Exact dates and pricing to be confirmed.



For more information on any of these dive trips, or to register your interest, or to RSVP for the info evening at Cactus Cantina, please email: abdiving@emirates.net.ae. Join the "AI Boom Dive Club" on Facebook to receive regular updates on all of the news!

PROJECT AWARE CLEAN UP DAY



Le Méridien Al Aqah Beach Resort Fujairah and Al Boom Diving partnered again this year to join divers across 100 countries while participating in the Project Aware International Clean Up Day on September 25, 2010. Divers documented the debris from the ocean and aim to create strong awareness about the underwater epidemic affecting our planet.

In this joint effort to protect the environment, Le Méridien Al Aqah Beach Resort, Al Boom Diving and Emirates Diving Association (EDA) staff along with over 30 divers participated in two separate dives on the artificial reef site – Le Méridien Reef, just off the coast of the resort.

Patrick Antaki, General Manager, Le Méridien Al Aqah Beach Resort Fujairah, said, "Partnering with Al Boom Diving and EDA for ecological conservation has always been a rewarding experience for us and ensures that we continue the trend in our on-going CSR activities."

"It is astounding to know that the number one item found in clean ups is cigarette filters and simple learning's like these encourage us to educate the community and help us form the much needed larger environment protection groups. The clean up this year has once again proved to be a huge success."

2009 saw divers the world over collect 550,000 lbs of underwater debris while it is estimated that at least six million tons of debris enters the oceans each year. The efforts being made by Le Méridien Al Aqah Beach Resort, Al Boom Diving and EDA have made

it possible for the local UAE diving community to join over 15,000 divers internationally to clean the oceans and shorelines.

Simon Tambling, Managing Partner, Al Boom Diving, said, "The response we received for the International Clean Up Day has been overwhelming. Held in partnership with the Ocean Conservancy's International Coastal Clean Up, our divers' unique skills will add to the efforts across the globe to make a critical difference in protecting underwater wildlife and environments."

The end of the two dives saw contributors to the clean up exchange notes and discuss the issues on hand while lounging in the resort's Gonu Bar & Grill located on the shores of the private beach.

Ibrahim Al-Zu'bi, Executive Director of EDA, said, "EDA will always support underwater and beach clean ups as part of our Reef Check project to ensure our marine life is healthy, this clean up will be followed by the main annual 'Clean Up Arabia' event scheduled on November 6th, 2010".

The 'Clean Up Arabia' campaign will be a comprehensive clean up day to clean the beaches of the UAE as well as underwater. This will be the 7th consecutive year that EDA, Al Boom Diving and Le Meridien Al Aqah partner for the event.

For more information and registration, please contact the Al Boom Diving call centre on: +971 4 342 2993 or email: Abdiving@emirates.net.ae

PADI TEC REC

The PADI Tec Rec courses, guide you to greater depths by gradually increasing your capabilities and safe dive depth. Completing the courses – Tec 40, Tec 45 and Tec 50 – will take you from your recreational dive limit of 40m (attained by completing the PADI Deep Diver Specialty) up to your new limit of 50m!

"To start," says Francis Uy, PADI Course Director and PADITec Deep Instructor Trainer at Al Boom Diving, "you can do what we call a Disco-Tec! This is a Discover Tec Diving session, and allows you to try out all of the tec dive gear in the safety of the swimming pool. Once you have tried the discovery session, you are sure to be hooked!"

The UAE offers some great spots for Technical diving, from the deep wreck sites off Dubai, to the depths of the Musandam and the newly discovered submarine off the Al Aqah coastline.

"In the Tec 40 Course, you will use a single cylinder of decompression gas with up to 50 percent oxygen (EANx50) to add conservatism to the required decompression. Four dives are required for this course," said Francis.

The Tec 50 Course, you will complete your qualification as an entry-level tec diver by making actual decompression dives as deep as 50 metres; use enriched air nitrox and/or oxygen for decompression and use desk top decompression software to create custom dive tables and plan your dives."

Are you interested to Discover Tec Diving? Give Al Boom Diving a call and mention reading about the Disco-Tec offer in the EDA magazine, to book yourself for a free Discover Tec Diving session at Al Boom Diving on the 5th or 19th December at 6pm. Places are limited to four per session, so give us a call soon!



Al Boom Diving offers the Tec 40, Tec 45 and Tec 50 courses at competitive rates. For more information, contact Al Boom Diving on email abdiving@emirates.net.ae or call 04 342 2993.

PRACTICAL DIVE TIPS: LOSE SOME HOLIDAY WEIGHT!

FEATURE **STEVE WOOD** – INDEPENDENT INSTRUCTOR WITH **AL BOOM DIVING**

We have all heard about the “Dubai Stone”, that not so mythical extra weight we seem to put on thanks to all those brunches and all you can eat deals. Well there’s another weighty issue we divers have to deal with and that’s the dreaded checked bag allowance when we arrive at Dubai for our next dive trip overseas.

Most airlines are pretty fair – flash your PADI cert card and they may allow you an extra 5kg. But even then, 25kg is not actually that much if you are hauling a full set of dive gear, camera equipment, a week’s worth of clothes and everything else we need – the weight keeps adding up and before you know it so do the excess baggage fees!

We of course have the option to rent our gear when we get there, but let’s be honest here, if I am doing a week of diving in Egypt, maybe 20 dives, in testing conditions, I want my own kit. Who knows how well the rental kit is looked after and even worse, what the last person may have done in that rental wetsuit!!!

A NEW ERA IN SCUBA TRAVEL – CUTTING EDGE NEW GEAR

Now there’s a third option thanks to manufacturers like Aqualung looking at this ‘weighty issue’ and producing equipment that means we can take everything we need without wearing our BCD under our coat at check in. They have recently launched a complete set of equipment that fits into a carry-on bag and weighs in at less than 8kg! But does that mean we lose the quality, strength or features? Well actually, no. And the advances in technology mean stronger more lightweight materials. I tested the whole set and was blown away by it.

- **BCD** – The Zuma BCD weighs only 1.8kg but still has massive lift for when sat on the surface. It also has integrated weight pouches, pockets and enough clip rings and storage to fit everything you need. It has no hard backplate but is well padded and the tank holder really keeps everything secure. It feels strange at first because it is so trimmed down but once underwater it feels like you aren’t wearing anything at all.
- **FINS** – The Hotshot Fins look very strange. They have shortened them so they fit in a smaller space but then they have put ‘springs’ into them so they create a more powerful kick, therefore giving you back the power you lose through the shortening. Simple, yet effective. They can also be worn with or without boots as the foot pocket is made of a super soft rubber.
- **REGS** – Both the Aqualung Micron and Apeks Flight regs are light as a feather, weighing in at just over half a kilo. To compare, my standard set weighs over 2kg! They are only good for warm water diving (so don’t take them ice diving in the Norwegian Fjords!) but as a travel set up they are simply stunning. The performance is great at all depths and the neutrally buoyant second stages mean no jaw fatigue. And those lightweight hoses are made by mi-flex so they are both tough and super flexible. They also come in either a manly black/army green or a lovely pink for those of you in touch with your feminine side.
- **WETSUITS** – There are plenty of lightweight shorties on the market, and Aqualung have made all of their wetsuits in both gender versions. Another lightweight idea is surf vests that are wetsuit type material in a t-shirt style. I recently got one from Al Boom Marine on the Beach Road.
- **MASK & SNORKEL** – Finally, add a mask and snorkel from the travel range, fit the lot into your travel bag and you still have around 12kg allowance for everything else you need to take on your next holiday.



GO PRO ANYTIME

With three Course Directors on staff, Al Boom Diving can assist you with your instructor development on demand.

“Although the PADI Instructor Exam is held twice a year in Dubai, in April and September,” says Mohamed Helmy, Course Director and Arabic Training Manager, “we find that people take vacations to complete the Instructor Development Course at any time, and opt to do the exam somewhere else in the world.”

“Candidates come in from around the Gulf to do their instructor exam preparations as the course is available in Arabic, and on site experience is available.”

The next Instructor Exam will be held on 13th and 14th April, and Al Boom Diving will run an Instructor Development Course from the 7th to 12th April in both English and Arabic. The course can however be done at any time prior to this if needed.

For more information on the Al Boom Diving IDC, please email abdiving@emirates.net.ae



CORAL REEF CONSERVATION PROGRAM

FEATURE NOAA CORAL REEF CONSERVATION PROGRAM

CORAL ANATOMY AND STRUCTURE

Corals can exist as individual polyps, or in colonies and communities that contain hundreds to hundreds of thousands of polyps. For example, brain corals are some of the most recognizable coral species. These corals are colonies of many individual polyps; the individual polyps average 1-3 mm in diameter. However, some corals, such as *Fungia* plate corals, are solitary and have single polyps that can grow as large as 25 cm in diameter. In comparison, the head of a typical straight pin is 1.5 mm in diameter and the diameter of a US penny is 1.9 cm. In addition, some colonial deep-sea corals form communities that resemble forests.

ANATOMY OF A CORAL POLYP

Coral polyps are multicellular and their cells exhibit specialization to perform various functions. Unlike other Cnidarians, corals exhibit very limited organ development. They share two anatomical features with other Cnidarians: a gastrovascular cavity (simple stomach) that opens only on one end, and a ring of tentacles. Corals have no central nervous system. Many corals, while appearing to be a single organism, are actually a colony of many individual, yet genetically identical, coral polyps.

HARD CORAL

Hard corals, also known as scleractinian and stony coral, produce a rigid skeleton made of calcium carbonate (CaCO_3) in crystal form called aragonite. Anatomic structures such as septa, tentacles, and mesenteries are found in sets of six, so hard corals are also often termed hexacorals.

Hard corals are the primary reef-building corals. Colonial hard corals consisting of hundreds to hundreds of thousands of individual polyps are cemented together by the calcium carbonate 'skeletons' they secrete. Living coral grow on top of the skeletons of their dead predecessors. A layer of tissue covers the skeleton and connects coral polyps, allowing for distribution of nutrients as well as communication amongst individuals of the colony. Hard corals that form reefs are called hermatypic coral.

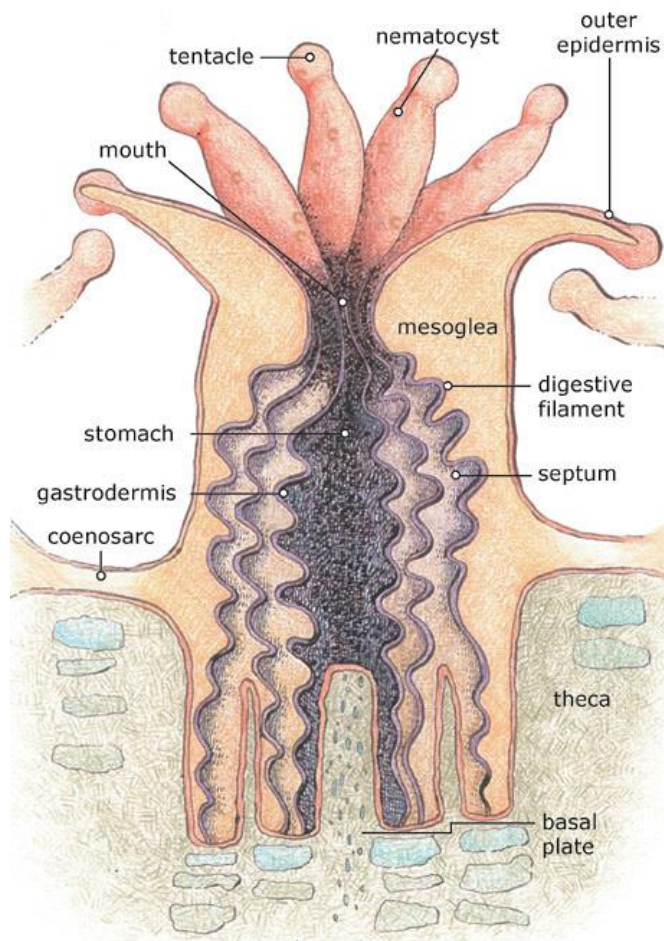
Other stony coral species are incapable of producing sufficient quantities of calcium carbonate to form reefs. Many of these corals do not rely on the algal metabolites produced by zooxanthellae, and live in deeper and/or colder waters beyond the geographic range of most reef systems. Some of these deep-sea stony corals may form community structures that resemble forests, but do not build reefs. Other stony deep-sea corals, *Oculina* and *Lophelia* species, for example, do build reefs.

The rate at which a stony coral colony lays down calcium carbonate depends on the species, but some of the branching species can increase in height or length by as much as 10 cm a year (about the same rate at which human hair grows). Other corals, like the dome and plate species are more bulky and may only grow 0.3 to 2 cm per year.

HARD CORAL ANATOMY

The diagram on the top right, shows the typical structure of an individual hard coral polyp. Polyps are usually only a few millimetres in diameter. The polyps of hard corals sit within a cup, or calyx, produced as the coral secretes calcium carbonate at its base. This secretion is how reefs are formed; the process is covered in more detail below. The walls surrounding the calyx are called the theca and the bottom of the 'cup' is the basal plate. The basal plate is a calciferous ring with six supporting radial ridges. The ridges grow vertically and project into the base of the polyp. Their anatomy also includes tabulae, which are horizontal partitions that allow for upward growth of a polyp by isolating the surface from the underlying calcium carbonate skeleton.

The stomach opens at the centre of the polyp and is surrounded by tentacles. This single opening is used both to ingest food and to expel waste. The tissue lining the stomach is called the gastrodermis. Between the epidermis and the gastrodermis is a jellylike tissue called mesoglea. Septa, or vertical plates, are also present within the gastrovascular



This drawing depicts the basic anatomy of a hard coral polyp.
Artwork Credit: NOAA/Gini Kennedy

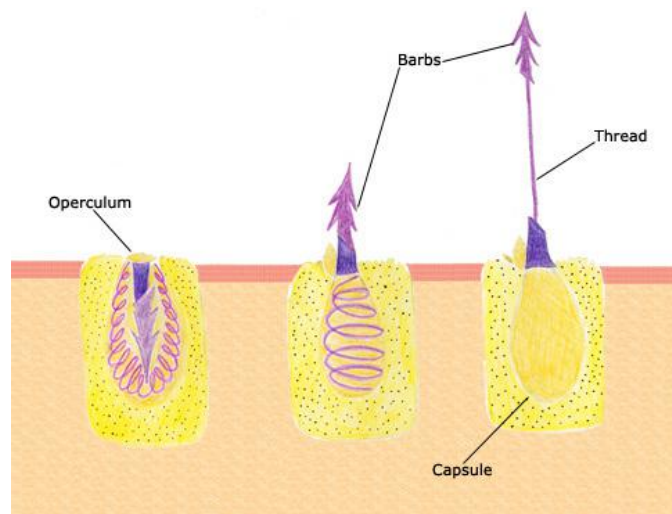
cavity; they support the internal folds, or mesenteries, of the stomach. The mesenteries increase the surface area of the stomach cavity and also contain the reproductive cells. In hard coral, the edges of the mesenteries support long mobile filaments that can protrude through the mouth and capture food or assist the coral colony in competing with its neighbouring organisms for space to grow. At the bottom of the stomach is the basal plate.

The individual polyps are connected via a system of gastrovascular canals that allow for the sharing of nutrients and symbiotic algae. These canals run through the coenosarc, which is tissue that connects individual polyps at the surface of a coral colony. The outer tissue of the polyp is the epithelium or epidermis.

Tentacles for this group of corals are typically smooth and occur in sets of six. They are used mainly for defence and to capture and pass food into the mouth. Tentacles may be retracted when physically stressed to protect them from predators and the elements. Some species also retract their tentacles during the day, but extend them at night, primarily to feed on plankton. The tentacles contain stinging cells, called nematocysts or cnidae.

These cells are also found on the epidermis and are used for both incapacitating prey and defence from predators. The nematocysts inject poison into the coral's prey, immobilizing or killing them. While effective against small prey such as plankton, and in discouraging predators, the sting of most corals has no harmful effect on humans. A notable exception would be fire corals, whose stings can be extremely painful for up to two weeks. Nematocysts are also one of the means by which coral competes for space to grow.

Polyps are radially symmetrical, meaning that if one cuts a polyp like a piece of pie, each slice would look virtually identical. All hard corals could be divided into pie slices in multiples of six, since tentacles, septae, and mesenteries occur in groups of six.



This drawing depicts the process of a coral nematocyst firing, as well as the anatomy of a nematocyst. Artwork Credit: NOAA/Caritta Lee

SOFT CORAL

Soft corals, such as sea fans, appear to be colourful underwater plants, bending and swaying with the ocean waves, but they too are coral animals.

Soft coral, also known as Alcyonacea and ahermatypic coral, do not produce a rigid calcium carbonate skeleton and do not form reefs, though they may be present in a reef ecosystem. Anatomic structures such as tentacles and mesenteries are found in sets of eight, so soft corals are often called octocorals. Soft corals are also mostly colonial; what appears to be a single large organism is actually a colony of individual polyps combined to form a larger structure. Though they don't secrete calcium carbonate as prolifically as hard corals, they do contain spiny skeletal elements called sclerites in the cells on the outside of the colony. Sclerites are found in the jelly-like tissue, called coenenchyme, between polyps. Sclerites are made of protein and calcium carbonate and give soft coral support to allow them to achieve their vertical structures. The sclerites also give their surfaces a spiky or grainy texture. The inner core of the colony consists of gorgonin; a flexible, fibrous wood-like protein. This gives the soft coral colony the ability to flex with the ocean waves and currents.

Visually, soft coral colonies tend to resemble trees, bushes, fans, whips, and grasses. Colonies are usually attached to the substrate at a single point at the base of a stem and most species have some level of branching in their structure. Some are also encrusting. A soft coral colony has the growth potential of two to four cm per year.

SOFT CORAL ANATOMY

Soft coral polyps are anatomically similar to their hard coral counterparts, with a few notable exceptions. As previously stated, these coral species do not secrete calcium carbonate skeletons so their polyps do not contain calyx, theca, tabulae, septae, or a basal plate. Tentacles and mesenteries are present in groups of eight, rather than six. In addition, their tentacles are often fringed and many soft corals do not contain zooxanthellae. In some soft corals, polyps specialize to perform specific functions for the colony, such as forming a supportive core at the centre of the main stalk of the colony.

DEEP-SEA CORAL

Deep-sea coral species include both hard corals and soft corals and follow the general anatomy described above for both types of coral. However, unlike the shallow hard corals, most deep-sea corals do not contain zooxanthellae within their cells because they live too deep to rely upon sunlight.

HOW MANY PEOPLE ARE DEPENDENT UPON CORAL REEFS?

Worldwide, about 500 million people have some level of dependence upon coral reefs.

FEATURE NOAA CORAL REEF CONSERVATION PROGRAM



ARC Centre of Excellence for Coral Reef Studies – Marine Photobank

They depend upon coral reefs for food resources and/or supplementary income from fishing, coastal protection, building materials, and income from tourism. About 30 million people are virtually totally dependent on coral reefs for their livelihoods or for the land they live on (atolls).

Healthy coral reefs are among the most biologically diverse and economically valuable ecosystems on earth, providing valuable and vital ecosystem services. Declining reef health is detrimental not only to creatures inhabiting coral ecosystems, but also to the human populations that depend upon them. Learn more about the value of reefs and what is being done to conserve them for future generations, including what you can do to help.



L-R (Marine Photobank): Joshua Cinner/ARC Centre of Excellence, Kathleen Reaugh, Joshua Cinner/ARC Centre of Excellence for Coral Reef Studies



Photo by Rebecca Weeks – Marine Photobank

SUUNTO



LIFE IS NOT A SPECTATOR SPORT

Diving



SUUNTO D9

THE WORLD'S FIRST ALL-IN-ONE DIVE COMPUTER

- Air, Nitrox and Gauge modes • Integrated digital compass • Optional wireless transmission • Complete watch functions • Ascent rate monitor/alarm • Suunto Deep Stop RGBM model • USB compatible PC interface and software included • Chronograph/stop watch



SUUNTO D6

FIND YOUR BEARINGS

- Air, Nitrox and Gauge modes • Gas switching (2 mixes 21-99%) • Complete decompression stop data • Multi-step ascent rate indicator • Integrated digital compass • Extensive memory functions • Optional PC-interface

Training



SUUNTO t6c

STAY IN TUNE WITH YOUR BODY

- Scientific training assessment • Analysis of 7 body parameters • Average heart rate in real time • Adjustable training timers & functions • Speed & distance with optional PODs • Altimeter, Graphic Barometer • Interference free digital transmission



SUUNTO t4c

YOUR PERSONAL COACH

- Self-adapting training plan • Training effect in real time • Heart rate with 4 adjustable zones, limits & alarms • Accurate calories burned • Speed & distance with optional PODs • Interference free digital transmission

Outdoor



SUUNTO CORE

ESSENTIAL EQUIPMENT FOR THE VERTICALLY INCLINED, THE SUUNTO CORE IS THE PROFESSIONAL BENCHMARK FOR ABC WRISTOPS

- Altimeter • Barometer, Compass • Depth Measurement • Sunrise/Sunset Time, Dual Time • Button Lock, 4 Language Menu



SUUNTO X10

THE WORLD'S SMALLEST, LIGHTEST OUTDOOR WATCH WITH GPS

- GPS: routes, waypoints, tracks, speed, distance • Plan and visualize routes on PC • View tracks on Google Earth™ • Altimeter: altitude alarm, vertical speed, logbook function • Barometer, Compass • PC interface + USB cable

Suunto Oy, Valimotie 7, FIN-01510 Vantaa - Finland

www.suunto.com

Exclusive Distributors in the UAE

Available at:

 **Al-Wifaq**
General Trading (L.L.C.)

P.O.Box: 55816, Dubai, United Arab Emirates Tel: 04 221 23 23, Fax: 04 221 02 57
E-mail: alwifaq@eim.ae

DUBAI • Lamcy Plaza - 1st Floor Tel. 04 - 3352979 • INTER SPORTS - Time Square Center Dubai Festival City • AL BOOM DIVING - Jumeirah • SCUBA DUBAI - Al Barsha • DUBAI DUTY FREE • GO SPORTS - Mall of the Emirates, Ibn Battuta Mall, Uptown Mirdiff • WATCH CORNER - Dubai Mall • AL FUTTAIM WATCH - Mall of the Emirates • WATCH CORNER - Deira City Center **ABU DHABI** • GULF MARINE SPORTS • GO SPORTS - Khalidiya Mall **AJMAN** • DIVE CENTER - Kempinski Hotel **FUJAIRAH** • AL BOOM DIVING - Massafi • PALM DIVE CENTER - Dibba • DIVERS DOWN - Khorfakkan

REEF CHECK LAUNCHES BUSINESS MEMBERSHIP PROGRAM

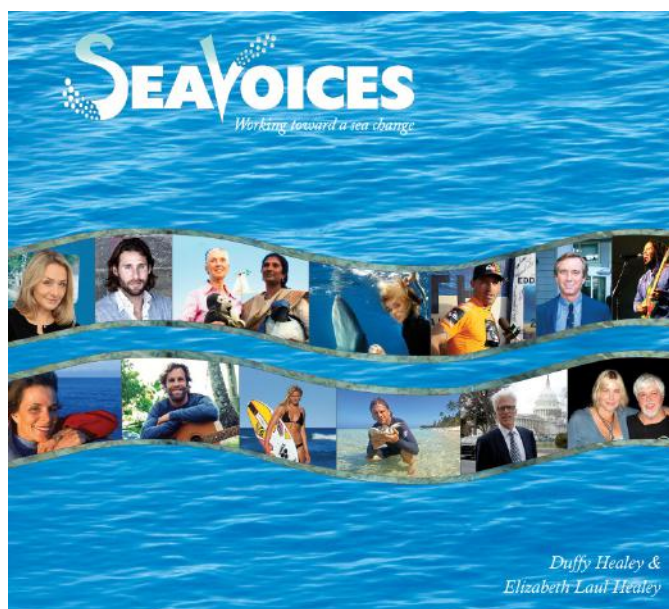
Reef Check Business Membership

Show your business cares about the ocean by supporting a leading non-profit organization!

We are pleased to announce our new Business Membership Program! Show your support for a great cause by making a donation and we'll give your business valuable online exposure through our website. It's a great way to show that your business cares about the environment, and membership starts from as little as \$250 per year to have your company listed in our Business Member Directory. For \$500 or more, sea-related businesses will be able to feature and promote their products on our online Sea Bazaar and potentially increase their online presence and sales. We welcome companies to partner with us in this symbiotic relationship.

Follow http://www.reefcheck.org/join/business_membership.php for more information.

REEF CHECK FEATURED IN SEA VOICES BOOK



September saw the release of a beautiful 192-page hardcover book by Duffy Healey and Elizabeth Laul Healey, "Sea Voices". The book focuses on the current issues that face our world's oceans and is written in a "Question & Answer" format, so much of what is said is unpredictable, and often times, even shocking. The Healey's interviewed well over 100 people from over 25 countries to keep a global perspective. Reef Check's Executive Director Dr. Gregor Hodgson is featured in the book, along with interviews with other ocean experts (including Reef Check Honorary Co-Chair Dr. Sylvia Earle), musicians (Jack Johnson, Jason Mraz), athletes (Kelly Slater, Tony Hawk), environmentally conscious celebrities (Daryl Hannah, Pierce Brosnan), and even Royalty from Saudi Arabia and Nigeria, among many others.

"Sea Voices" is educational, inspirational, and captivating. It is also a call to arms. Although the book points out a lot of the things that are wrong with the ocean, it speaks about a lot of the great things about the ocean too, and why we need to protect it. The good news is that the ocean is very resilient, and if given a chance, it can recover.

The "Sea Voices" book is available online at www.SeaVoices.com and will be available soon through the Reef Check Sea Store.

"VOLUNTEER" DOCUMENTARY TO FEATURE RC FIJI EXPERIENCE

FEATURE MARIAH WILSON



Fiji is renowned for being the "soft coral capital of the world," but even its reefs are showing signs of the disastrous effects of environmental change. Reef Check has been operating in Fiji since 1997. The Fiji Diving and Volunteer Conservation (FDVC) project is conducting baseline Reef Check surveys throughout the island nation, gathering scientific data about the reefs in an effort to monitor the health of these delicate ecosystems. The data gathered in this project is used by Fiji and Reef Check to study the impacts of everything from global warming to overfishing on our planet's oceans and reefs.

In September of 2009 I went to Fiji to volunteer for two weeks with FDVC, and to film my experience for a feature length documentary I'm making about environmental volunteering. FDVC volunteers live with a family in a very remote Fijian village, seemingly a relic of another time. In between rounds of the mild narcotic drink kava with my host family, I was trained by Johnny Singh – resident marine biologist at the Vanua Levu Cousteau Resort – on how to perform Reef Check underwater diving surveys to assess the health and biodiversity of Fiji's coral reefs.

The way Reef Check works is that first the volunteer(s) and instructor have to lay a 100 meter transect line, which is essentially a waterproof measuring tape along which you'll do your fish count, invertebrate count (sea cucumbers, lobster, etc) and substrate ID (coral, rock, sand, silt, etc). After laying the transect, volunteers swim along the transect 3 times... one time for recording the fish species they see, and how many of each, then the same for invertebrates. The third time, volunteers record substrate types every half meter by dropping a small weight and writing what type it lands on.

Despite being a fairly seasoned scuba diver, I quickly discovered that surveying these exotic waters wasn't nearly as easy as it seemed. The fish identification was by far the most complex. Identifying the myriad of fish species of Fiji on paper is one thing, but when they're darting and moving quickly underwater, it gets a lot tougher to identify them. And especially when starting out, doing a Reef Check survey requires time to do it properly. Johnny and I had to change tanks before we did the substrate count because the fish and invertebrate ID took us so long. To be fair, part of that was because I was juggling both the survey and the steep learning curve of mastering underwater video shooting... it's not as easy as I thought to dive with a buoyant pocket of air encasing a camera! But with Johnny's patience and excellent instruction, I eventually got the hang of doing Reef Check and filming the process, too. Affixing two 2 kg weights to the camera housing itself did the trick, in terms of regaining neutral buoyancy underwater.

Now that my time in Fiji is over, I'm working on putting together my film 'Volunteer' in an attempt to educate others who might be interested in taking their own cross-continental conservation journey. If this story has inspired you, please consider eco-volunteering in your itinerary for your next vacation. It's an incredibly fulfilling experience!

For more about 'Volunteer', please check out our Kickstarter page: <http://kck.st/a3INKr>

MUSANDAM EDA/BIOSPHERE EXPEDITIONS 2010

FEATURE RITA BENTO



Biosphere Expedition together with EDA organized their second Reef Check expedition in the stunning Musandam Peninsula, Oman. Between the 8th and 23rd of October, 16 team members divided into two groups between two weeks, were trained to do Reef Check surveys. Nationalities on board varied with people from Switzerland, Germany, the Netherlands, Australia, the UK, Finland, Norway, Portugal and Oman. After three days of intensive Reef Check training, nine surveys were done per week, including areas on both sides of the Musandam, the Arabian Gulf and in the Gulf of Oman. Almost all sites covered in the 2009 expedition were surveyed again this year and the data will carefully be analysed to see if there are any major changes since then.

The Musandam Peninsula, also known as Ru'us al-Jibal, is an exclave of Oman separated from Oman by the United Arab Emirates. It is situated on the Arabian Peninsula in the Strait of Hormuz, the narrow passage that links the Arabian Gulf and the Gulf of Oman.

Even though the Arabian Gulf's corals are unique and seem to endure extremely harsh conditions when compared to corals in other parts of the world, scientists are increasingly concerned that any additional stress, imposed by global climate change or regional coastal development may accelerate coral die-off.

Reefs in the Arabian Gulf have been devastated by major coral bleaching events (in 1990, 1996, 1998 and 2002), cyclone Gonu in 2007, and recently by extensive coastal developments along the Arabian Peninsula. The impact extends beyond the shoreline, since turbidity and suspended sediments are dispersed from the dredge or reclamation sites. In addition, coastal currents are diverted by coastal engineering, altering the movement of sediments causing them to accumulate.

The coral reef losses from climate-related devastation and massive coastal development on the Arabian Peninsula have made this region amongst the most damaged in the world with the lowest predictions for recovery. According to recent estimates, 30% of the coral reefs are at a threatened-critical stage and up to 65% of the coral reefs may have been lost already due to natural causes (fluctuation of temperatures, diseases), and anthropogenic stresses (oil pollution, unmanaged coastal development, unregulated commercial and recreational fishing and diving). Nevertheless, knowing that many of the world's best reefs have a hard coral coverage of 32% according to Hodgson & Liebler (2002), the 34% of hard coral coverage found by the Biosphere Expedition in 2009 is encouraging.

On this expedition, Biosphere Expeditions is working with the local community, Sultan

Qaboos University, the Oman Ministry for Environment and Climate Affairs, the Oman Tourism Board, as well as the United Nations Environment Programme, the World Conservation Monitoring Centre and the International Coral Reef Action Network (ICRAN). Further support comes from a Six Senses (Zighy Bay) environmental grant, as well as from HSBC, Land Rover and Swarovski Optik.

TEAM MEMBER COMMENTS (written on the last day of the expedition)



"While Ken and Rita are removing maps, working plans and information sheets in the 'training room' already, I have to realise it's really OVER! Two weeks of training, survey and pleasure

dives have flown by! After having joined the Reef Check expedition in Honduras in 2006, I must have been one of the first to register for this one. Another Reef Check, and even better; being on a boat all the time! And I really have to say that the expedition lived up to all my expectations! It was great to meet people

from different countries and with completely different backgrounds and to see how we all worked well together after only a few days. And it was worth joining two slots; the two or three days "in between" have been great and relaxing with time for reading, listening to music and, of course, the pleasure dives with Georgie and Conny! Many thanks go to Rita, who was an excellent teacher, but also a person to have fun with and thank you for all the chocolates! Thanks to Ken, who was a perfect expedition leader and to the crew – I must have gained several pounds owing to the good food! And thanks to all the team members especially Georgie and Conny who I shared a great time with! See you on another expedition (hopefully!)"

Karin Thiele



"Well, I learned how to suspend myself above a coral reef, to distinguish between hard coral and soft coral, to count fish in crazy numbers and to play "shithead". What a week! Many thanks to all, especially to the ever patient Rita and committed enthusiastic Ken."

Jane Calderbank



"My first Biosphere Expedition (but not my last!) and 4 years after last diving, I wasn't sure how this would go – but no need to worry! Rita is an amazing teacher so even the intensive Reef Check

training was fun and the dives were great – my confidence growing each time. I even managed to invert and glide gracefully down a coral wall. Unfortunately Ken didn't get that on camera! What a great bunch of people and Rita and Ken have been awesome. Wonderful at running the expedition (and keeping us all in line!) and great fun to hang out with."

Helen Savill



"On my arrival, we were greeted by dolphins heading towards the Musandam islands with MS Sinbad, and now they are giving us a heartily felt farewell while heading back to Khasab.

There is so much left to say...

I will miss quite a lot of things when I'm back in my office on Monday:

- No more fish counts;
- No more substrate data taken with the plumb line;
- No more pleasure dives with Georgie and Karin – will miss these two very much;
- No more "shithead" games in the evening;
- No more sleeping on deck under the amazing stars;
- No more delicious Polly food;
- No more helping hands of the always friendly crew;
- No more underwater laughs with Rita and Ken.

It has been a perfect expedition, thanks go out especially to Rita, Ken and the crew, who all together let it become a really smooth expedition. And of course thanks to all the team members.

See you all hopefully on my next time."

Cornelia Beisel



CLEAN UP ARABIA 2010

MAIN EVENT LE MÉRIDIEN AL AQAH FUJEIRAH

The main event for Clean Up Arabia 2010 was held on the 6th of November at Le Méridien Al Aqah in Fujairah – Clean up Arabia's yearly and faithful host venue.

Registration started at 8:30am with an impressive turnout of around 300 clean up volunteers! EDA members, friends and families, EDA partners and sponsors gathered on the Méridien lawn eager to begin the dive and beach clean ups. Clean up gloves, bags and nets were handed out and everyone set off toward their designated tasks.

After everyone's hard work, lunch was served around midday. Everyone was able to relax and

take the time to socialise and soak up the vibrant atmosphere.

All the rubbish brought in was piled in a specified area to the side of the beach for easy disposal collection at the end of the day and then everyone handed in their ICC cards which were filled out by the clean up groups with the number of each item collected. The information recorded was summarised and successfully sent to the Ocean Conservancy to be added to their annual international report.

In the afternoon, the beach volleyball tournament teams formed into groups, and the games began.

We would like to thank our sponsors, partners, members and friends and families who became new EDA members, for making this year's Clean up Arabia 2010 another successful event.

Qatar, Bahrain, Oman and the UAE have all had a clean up this year and we are all grateful for the willingness, commitment and coordination efforts that were put in to make them all happen. This campaign has had another fabulous success and you have all made a difference again this year and we thank you for it. We look forward to seeing you at Clean Up Arabia 2011 next year with the continued enthusiasm to keep our Arabia clean.

| ABU DHABI | | | | FUJAIH | | | |
|---|------------------|-----------------|------------|---|------------------|-------------|------------|
| TYPE OF CLEAN UP | UNDERWATER TOTAL | SHORELINE TOTAL | BOTH TOTAL | TYPE OF CLEAN UP 2 | UNDERWATER TOTAL | BEACH TOTAL | BOTH TOTAL |
| TOTAL NUMBER OF BAGS USED | 64 | 84 | 148 | TOTAL NUMBER OF BAGS USED | 34 | 42 | 76 |
| Bags (paper) | 1 | 124 | 125 | Bags (paper) | 5 | 138 | 143 |
| Bags (plastic) | 97 | 262 | 359 | Bags (plastic) | 12 | 169 | 181 |
| Balloons | 0 | 1 | 1 | Balloons | 0 | 4 | 4 |
| Beverage Bottles (plastic) | 183 | 621 | 804 | Beverage Bottles (plastic) | 23 | 199 | 222 |
| Beverage Bottles (glass) | 149 | 86 | 235 | Beverage Bottles (glass) | 7 | 103 | 110 |
| Beverage Cans | 1407 | 753 | 2160 | Beverage Cans | 13 | 162 | 175 |
| Caps, Lids | 11 | 353 | 364 | Caps, Lids | 1 | 251 | 252 |
| Clothing, Shoes | 4 | 49 | 53 | Clothing, Shoes | 0 | 20 | 20 |
| Cups, Plates, Forks, Knives, Spoons | 31 | 288 | 319 | Cups, Plates, Forks, Knives, Spoons | 3 | 125 | 128 |
| Food Wrappers/Containers | 26 | 195 | 221 | Food Wrappers/Containers | 3 | 127 | 130 |
| Pull Tabs | 11 | 149 | 160 | Pull Tabs | 0 | 18 | 18 |
| 6-Pack Holders | 0 | 3 | 3 | 6-Pack Holders | 0 | 0 | 0 |
| Shotgun Shells/Wadding | 0 | 1 | 1 | Shotgun Shells/Wadding | 0 | 5 | 5 |
| Straws, Stirrers | 0 | 61 | 61 | Straws, Stirrers | 0 | 110 | 110 |
| Toys | 0 | 4 | 4 | Toys | 0 | 9 | 9 |
| Bait Container/Packaging | 0 | 2 | 2 | Bait Container/Packaging | 4 | 34 | 38 |
| Bleach/Cleaner Bottles | 2 | 0 | 2 | Bleach/Cleaner Bottles | 4 | 3 | 7 |
| Buoys/Floats | 0 | 0 | 0 | Buoys/Floats | 3 | 7 | 10 |
| Crab/Lobster/Fish Traps | 0 | 0 | 0 | Crab/Lobster/Fish Traps | 1 | 11 | 12 |
| Crates | 0 | 0 | 0 | Crates | 0 | 0 | 0 |
| Fishing Line | 2 | 15 | 17 | Fishing Line | 24 | 30 | 54 |
| Fishing Lures/Light Sticks | 0 | 0 | 0 | Fishing Lures/Light Sticks | 4 | 11 | 15 |
| Fishing Nets | 1 | 8 | 9 | Fishing Nets | 6 | 16 | 22 |
| Light Bulbs/Tubes | 0 | 0 | 0 | Light Bulbs/Tubes | 6 | 38 | 44 |
| Oil/Lube Bottles | 0 | 57 | 57 | Oil/Lube Bottles | 7 | 13 | 20 |
| Pallets | 0 | 0 | 0 | Pallets | 0 | 0 | 0 |
| Plastic Sheeting/Traps | 15 | 45 | 60 | Plastic Sheeting/Traps | 8 | 1 | 9 |
| Rope | 2 | 69 | 71 | Rope | 21 | 140 | 161 |
| Strapping Bands | 0 | 10 | 10 | Strapping Bands | 1 | 18 | 19 |
| Cigarettes/Cigarette Filters | 0 | 486 | 486 | Cigarettes/Cigarette Filters | 0 | 498 | 498 |
| Cigarette Lighters | 0 | 12 | 12 | Cigarette Lighters | 0 | 10 | 10 |
| Cigar Tips | 0 | 0 | 0 | Cigar Tips | 0 | 0 | 0 |
| Tobacco Packaging/Wrappers | 0 | 18 | 18 | Tobacco Packaging/Wrappers | 0 | 48 | 48 |
| Appliances (refrigerators, washers, etc.) | 0 | 0 | 0 | Appliances (refrigerators, washers, etc.) | 0 | 0 | 0 |
| Batteries | 0 | 2 | 2 | Batteries | 1 | 2 | 3 |
| Building Materials | 5 | 29 | 34 | Building Materials | 33 | 99 | 132 |
| Cars/Car Parts | 1 | 0 | 1 | Cars/Car Parts | 6 | 4 | 10 |
| 55-Gal. Drums | 0 | 0 | 0 | 55-Gal. Drums | 0 | 1 | 1 |
| Tires | 0 | 0 | 0 | Tires | 5 | 1 | 6 |
| Condoms | 0 | 0 | 0 | Condoms | 0 | 1 | 1 |
| Diapers | 0 | 0 | 0 | Diapers | 0 | 5 | 5 |
| Syringes | 0 | 0 | 0 | Syringes | 0 | 0 | 0 |
| Tampons/Tampon Applicators | 0 | 2 | 2 | Tampons/Tampon Applicators | 0 | 0 | 0 |

تحت رعاية الشيخ هزاع بن حمدان بن زايد آل نهيان
حملة النظافة العربية



UNDER THE PATRONAGE OF HH SHEIKH HAZZA BIN HAMDAN BIN ZAYED AL NEHYAN
PARTICIPATING COUNTRIES: UAE, Oman, Qatar, Bahrain and Kuwait.



SPONSORED BY:



PARTNERS:



WWW.EMIRATESDIVING.COM







BEACHVOLLEYBALLWINNERS

The fabulous Beach Volleyball tournament prizes were sponsored by Body Glove.

1st PLACE – Body Glove Watches – **DUBAI DUTY FREE**

2nd PLACE – Body Glove Wetsuits – **BARADIH**

3rd PLACE – Body Glove Board Shorts – **LE MERIDIEN AL AQAH**



BODY GLOVE
PROTECT THE CORE



CLEAN UP ARABIA ABU DHABI: TOP TEN OFFENDERS REVEALED

FEATURE ENVIRONMENT AGENCY – ABU DHABI (EAD)

ABU DHABI, NOVEMBER 14, 2010: Out of the 200 bags of waste collected at the Clean Up Arabia Abu Dhabi event held on Friday 5th November, a break-down of the waste collected has been established.

The results are quite compelling: 2,160 beverage cans, 804 plastic bottles, 486 cigarette filters, 359 plastic bags, 319 pieces of kitchenware, 235 glass bottles, 221 food wrappers, 160 pull tabs, 125 paper bags, and 71 ropes were collected.

Marine debris can be harmful to marine life as well as swimmers and divers' health and safety. It also poses a hazardous risk to boats and leisure crafts. On a greater scale, marine debris negatively impacts upon the local economy and can cause a loss in revenue from the tourism and fisheries industry.

The clean up was organized by Emirates Diving Association (EDA), with the support of the Environment Agency – Abu Dhabi (EAD) and other partners. Volunteer divers and residents found 840 kilograms of marine debris waste at the Mina Port near the Fishermen's Wharf.

The Environment Agency – Abu Dhabi (EAD) urges the public to assist in protecting the marine environment by always disposing of trash in designated locations, and clean up after outdoor excursions. EAD also encourages members of the community to actively and regularly participate in clean up campaigns.





CLEAN UP ARABIA MUSANDAM

FEATURE AND PHOTOGRAPHY **NOMAD OCEAN ADVENTURES**



This is the sixth consecutive year that Nomad Ocean Adventures has run Clean Up Arabia in the Musandam. This year the volunteers for the clean up were separated into two groups. The first group was a group of teenage students from a school in Dubai. They cleaned up a beach in a bay called Sanaat which is right next to the famous dive site called The Cave. Not only was the clean up a great success, but proved to be an excellent educational opportunity as the students learned and realised that when trash is dumped in the sea, it doesn't just vanish. Creating awareness within future generations to understanding why they need to preserve the planet is more important now than ever and Clean Up Arabia was a success not just in practicality but also in raising that awareness.

The second group was a group of 10 divers on a boat which was sponsored by Nomad. This group cleaned up Octopus Rock and Pearl Island and recovered a number of lost fishing nets and cages. The dive sites in the Musandam are still clean and there is not much underwater pollution, but the fisherman in the region are very active and on many occasions their fishing nets or cages are lost. These ghost nets are extremely dangerous as they become traps for turtles and many fish and no one benefits from them.

Nomad had started a ghost net campaign in June 2010 and we have invited all our divers to take note of locations of lost nets during their dives so that we have a clearer idea of where to go when clean ups are organised. This proved to be very useful information for Clean Up Arabia and we hope that divers from all dive centers start noting the locations of these nets and cages as it is very easy to do and should be done for every dive site in the region.

Clean Up Arabia 2010 Musandam was very successful in all aspects and definitely helped in making the sea a better place for all, especially for us bubblemakers and our underwater friends!



CLEAN UP ARABIA DUBAI

FEATURE PERTEV KANDILCIOGLU SKY & SEA DIVING CENTER DIRECTOR



We at Sky and Sea Diving Center, located at the Sheraton Hotel Jumeirah, (JBR – The walk) performed our first duty as a new dive center on the 6th of November for Clean Up Arabia Dubai with the support of EDA.

Guests arrived nice and early to catch the briefing about the diving zones and days organization. Six groups were made up of four divers and one dive leader. Three parties, each with two groups completed the dive clean ups and at the same time another group of six people started to clean the beach up while two other members went around informing people on the beach of the importance of our oceans and keeping them clean.

At about 5pm, the clean up was completed and the guests were tired but happy.

We are really happy to be supported by EDA with the high quality T-shirts, gloves, garbage bags and of course the participation certificates. We will be ready to help EDA in the future as Sky and Sea Diving Center.



CLEAN UP ARABIA BAHRAIN

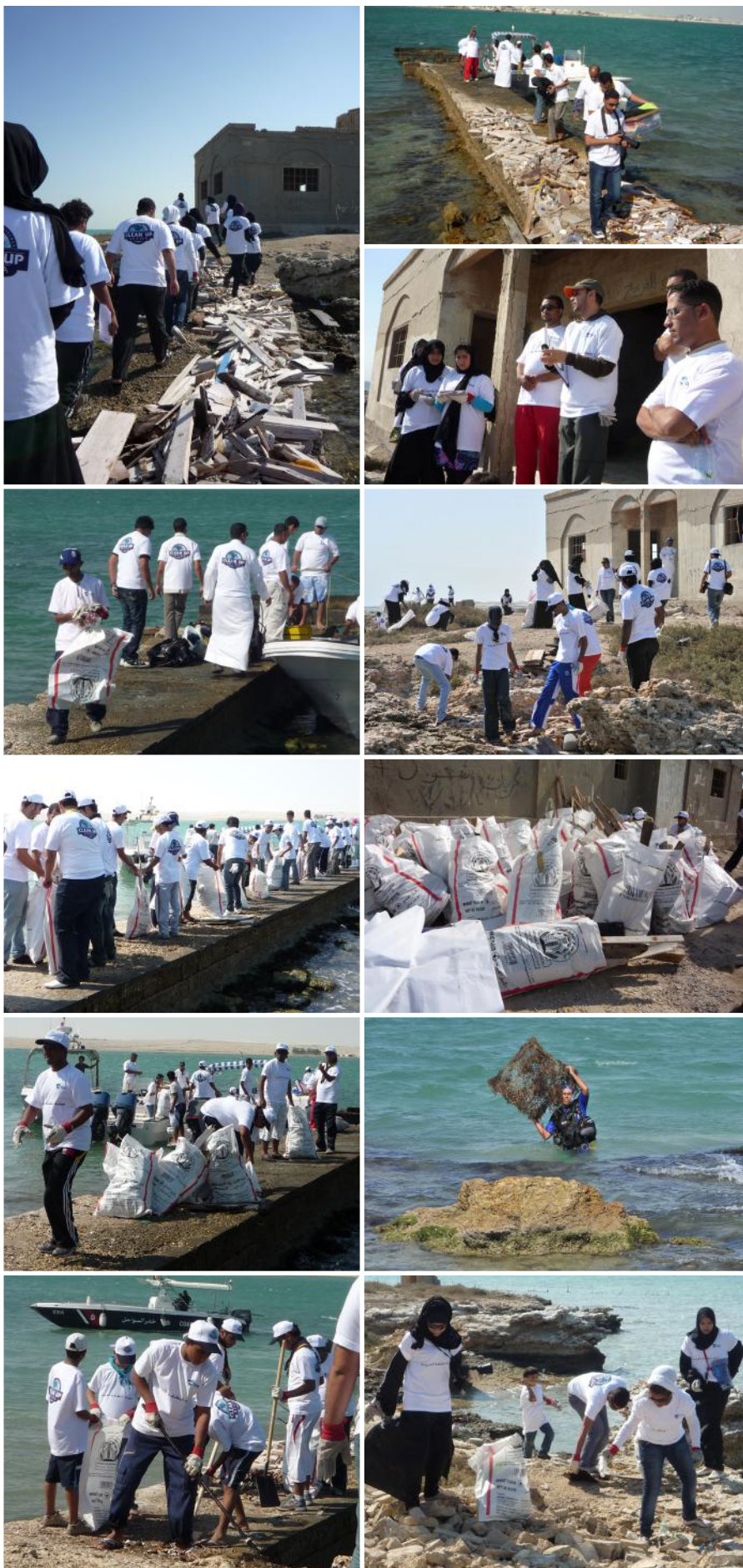
With the support of EDA, Clean up Arabia in Bahrain was organised by The Bahrain Environment Society which took place on Friday the 5th of November.

It was an early start as we headed over to Askar where the clean up was taking place. We parked up and waited for the rest of the participants to arrive. When they gathered, they were given their Clean up t-shirts, caps, bags and gloves. After a few group photos, we got on the two speedboats which were waiting for us to take us across to Sheikh Ibrahim Island.

The island itself was small and contained a tiny mosque. Unfortunately though, the whole place was full of building materials, plastic bottles and general trash everywhere.

The volunteers formed groups, and after a short briefing, the groups went to different areas of the island to commence the clean up process. After some time and 30 full bags later, lunch and refreshments were handed out and the volunteers took a well deserved rest.

The diminutive island has plenty of potential and various parties are calling for it to be protected and taken care of.



Recycle It!

Why

We produce more waste per person in the UAE than most other places in the entire world. This rubbish is polluting our environment and is a threat for us and our children. The main reasons why we produce so much waste here is because we consume a lot of new things rather than reducing and reusing them, and also because we do not recycle much of what can be recycled into valuable new products. Most of our office waste does not need to go to landfill. We can recycle all our paper, plastics, metals and electronics. With your help the UAE will be a better place to live now, and in the future.

How



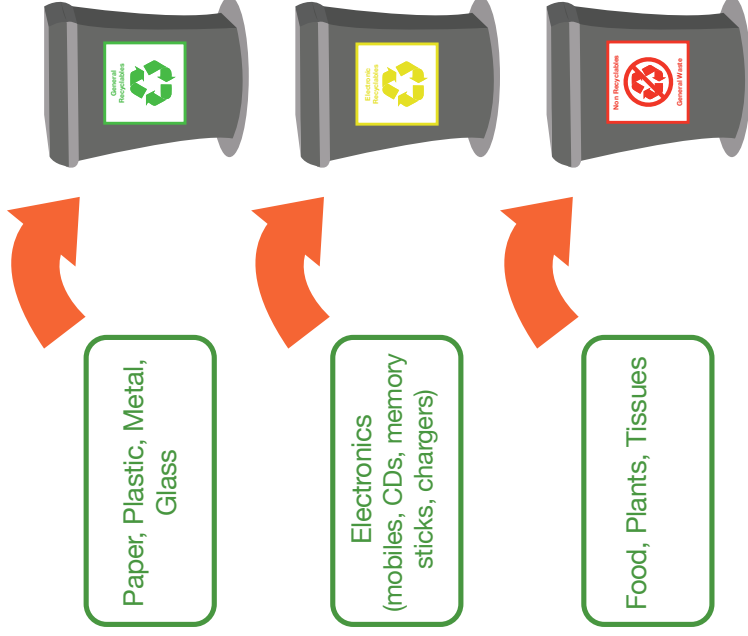
Try and reduce the amount of waste you produce by printing less and reusing items. Whatever waste you do produce, separate all the recyclables from regular waste.



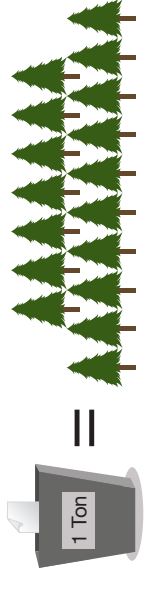
Follow the colour code and place this waste into the dedicated trays and bins around the central hub area. There are paper recycling trays as well as bins for most recyclables (green), electronic recyclables (yellow) and non recyclables (red).



Give yourself a pat on the back and relax. We will arrange for your recyclables to be collected and taken away for separation and processing into new products.



Facts



Recycling 1 ton of paper saves 17 mature trees, 7,000 gallons of water, 3 cubic yards of landfill space, 2 barrels of oil, and 4,100 kilowatt-hours of electricity, enough energy to power the average American home for five months.

Recycling aluminum like cans saves 95% of the energy needed to produce new aluminum from raw materials. Energy saved from recycling one ton of aluminum is equal to the amount of electricity the average home uses over 10 years.

1 recycled glass bottle saves enough energy to power a computer for 25 minutes.

26 recycled PET bottles equals a polyester suit. 5 recycled PET bottles make enough fiberfill to stuff a ski jacket.

Recycling 2 glass bottles saves enough energy to boil enough water for 5 cups of tea.



غرفة دبي
DUBAI CHAMBER

GOUMBOOK'S GREEN MAP



While science is still seeking more planets that have the similar atmosphere, particles, and qualities found here, Earth is the only planet we occupy. Taking small steps is necessary when it comes to saving our environment, our Earth, our home. Starting off small in the area of recycling has great advantages to the issues we face together:

Let's face it...going green requires effort. When you see passionate environmentalists doing everything they can in their power to change their ways and reduce waste, it can be a bit intimidating. However, it's important to read between the lines when it comes to recycling. Even if you just make small changes and do what you can, those efforts add up and those tiny accomplishments might encourage you to do more. So how can you start reading between the lines?

- Recycling isn't the only thing you can do. There are two other Rs: reducing and reusing. Reducing your household waste and reusing items counts too. These green activities might be easier for you to do so start with them first and work toward recycling after you have reused glass and plastic to its full potential.
- Composting your food scraps is a great way to create rich, fertile compost for your garden and plants, but it's okay if you don't want to go this route. Instead of focusing on the food you're throwing out, recycle that cardboard and paper. However, do keep in mind that composting bins come in a variety of price ranges, and when taken care of properly, they don't smell.
- Make recycling, reducing or reusing as convenient as possible. Between a busy schedule and laziness, eco-friendly acts can fall by the wayside. So label your recycling bins and have some on each floor of your house for glass, paper and plastic. Then you can collect them all on the recycling pick up day. Also, purchase products that have little packaging and try to plan ahead so you can reuse plastic bags and containers.
- Going green isn't all or nothing. Just because you're starting small doesn't mean your efforts don't count. Plus, the more you do, the easier it becomes to make those greener choices. You will definitely see the cost advantages, and you will realize that the environment needs your support.

There are hardcore environmentalists out there, but your changes are just as significant. So start wherever you feel comfortable – this might mean focusing on one of the three Rs – and be open minded to making more eco-friendly changes.

The general population is aware that recycling products like plastic, paper, cans and batteries is very helpful and good for the environment. The recycling bandwagon was back in full swing during the later part of the 90's, and then slowly subsided because of the hassle of putting it into action.

The hassle of recycling has many avenues, as with most things that require work on being environmentally conscious. The numerous comments were that there was not enough man power and recycling centres to handle the outpour of people eager to "save our environment".

With more scientific proof coming out every day over the last ten years of what the benefits are to recycling, this has brought about a resurgence of recycling with numerous magazine articles and data to back up the need to recycle. Although individual efforts help, communities must work together to reap the full benefits of recycling. From corporations, to small businesses, to schools and homes, everyone can do his or her part to recycle.

There are now numerous companies across the UAE that offer recycling solutions for almost all materials including paper, cans, plastic, batteries, light bulbs, ink cartridges and e-waste.

These same companies have set up recycling centres all over the UAE's main spots and neighborhoods in convenient locations to encourage people in the different communities to segregate their rubbish and make recycling a part of their everyday lives.

The world does not contain endless resources. Left to our own devices, we have been destroying our habitat. Forests are disappearing with increasing speed; rivers and lakes are becoming more and more polluted. Landfills are encroaching upon our neighborhoods. Recycling is a simple, easy way to help us use less of these resources.

The possibilities are endless: recycling brings benefits both regionally and nationally. The more we recycle, the less waste we generate, which means the less dependent we become on making new landfills in our communities.

For more on finding a recycling centre near you, visit Goumbook's Green map on <http://www.goumbook.com/green-map/>.



Recycle waste – create rich natural compost!

Bokashi is a unique indoor system which recycles your kitchen waste into organic compost with 3 - 5 weeks; it is simple, odourless and does not attract any pests!!

For queries, please contact:

Jo Marengo: jo@bokashidubai.com

Janine Sheard: janine@bokashidubai.com

Visit us online for more information or to order:

www.bokashidubai.com

BOKASHI DUBAI – RECYCLING & COMPOSTING OF FOOD WASTE

Bokashi offers a simple, yet effective composting system whereby ALL food waste (raw & cooked), can be recycled making organic compost.

It makes it possible to start a sustainable cycle regenerating soil, making it fertile for gardens, parks and farms. Helping in reducing landfills is a big advantage and it does not result in pests or foul odours. It is perfect for home and commercial use.

Using Bokashi enables the following issues to be combated relatively inexpensively using an eco friendly method, particularly important to us in the Middle East which has a documented high carbon footprint challenging to reduce.

The effect of landfill is huge in many ways as dumping food waste in a landfill causes odours as the waste decomposes, it attracts flies and vermin and contaminates the leachate.

Food rotting in landfills contributes to global warming. Landfills are a primary source of methane emissions, and the second-largest component of landfills are organic materials.

When food decomposes in a landfill, it releases methane, a greenhouse gas 21 times more damaging than carbon dioxide contributing to global warming. Furthermore, wet food waste is the main threat to groundwater.

When using Bokashi one starts to solve these problems by recycling food waste and using food waste to make compost which can regenerate soil allowing plant growth and production of vegetables decreasing the need to import with its associated expenses.

Decreasing carbon footprint by not needing to remove food waste or import compost.

Making recycling simple and efficient thus encouraging each of us to try it.

Bokashi's environmental impact is that it helps reduce use of artificial fertilizers, chemicals and causes waste to become a resource.

Using Bokashi is more effective than traditional composting as it has a larger positive environmental impact.

The Bokashi fermented waste end product after the soil microbes have finished the process is far richer in organic content and nutrients than traditional compost.

Using a heap allows many more polluting gases and heat to escape to the atmosphere.

Composting reduces the mass of material by more than 50% in part due to loss of moisture. The moisture content for the Bokashi fermented end product is retained thus saving water and conserving water in the ground.

The organic nutrients in the soil after Bokashi fermentation are not

as water soluble as are the nutrients derived from composting (by oxidation) and are therefore less prone to leaching away with watering and run-off after rains.

Bokashi creates composted soil that provides 5 times more nutrients by volume than conventional methods in as small a time frame as one month.

Taking into account all the problems associated with dumping food waste at the very least, food should be composted. Many individuals, schools, universities, hospitals, and municipalities have been doing so for years. Composting costs roughly the same as regular waste diversion and, depending on landfills' tipping fees, can be even cheaper.

It is a high price to pay to waste a resource like food by sending it to landfills. When that happens, we squander the time, money, resources, and effort that went into producing that item while ignoring the environmental impact.



Step 1: Add food waste to bin (holds approximately **20 litres**) The bin can be conveniently and discreetly stored in your kitchen.



Step 2: Sprinkle 'Bokashi activator' over the food waste. Seal airtight lid, ensuring "anaerobic fermentation" not decay.



Step 3: Drain liquid from tap every three days - it is teeming with microbes and nutrients. Diluted (10ml to 1 litre), the liquid is excellent plant food, to be used directly on your indoor and outdoor plants or poured neat down your drainage outlets, will remove unpleasant odours and keep drains clean.



Step 4: Once bin is full, empty contents into hole or trench in your garden and cover with soil. This feeds the natural ecology, whilst adding and attracting beneficial micro-organisms and earthworms. You will have compost 3 to 5 weeks later, which will feed your plants with 1/5 or less of the usual volume required.

MANTA CHAOS IN HANIFARU

FEATURE AND PHOTOGRAPHY **WARREN BAVERSTOCK** - WWW.VERSTODIGITAL.COM



POSITIONING Waiting in between the cleaning station and the shallow bowl can be very rewarding.

In 2009 at the Arabian Seas Whale Shark Symposium in Fujairah, I was lucky enough to listen to Guy Steven's do a presentation about his research of manta rays found in a small bay called Hanifaru located in Baa Atoll of the Maldives. I had previously heard many things about this special place and how, if lucky, you could witness a natural phenomena where up to two hundred mantas could be found feeding together in a bay no bigger than a football pitch. Information on where to stay, site access, transportation and times of the year to visit were not freely available and so as I watched guy's presentation I waited with great anticipation for anything in his presentation that would give me a better understanding of when and where to go. The presentation was extremely informative and by the time it was over I had learnt that the best time to go was during the South West monsoon period (May to November) and that numbers were especially high during the months of August and September. Catching up with Guy after his presentation, he told me about the best places to stay, which were fairly close to the bay, and that I would be welcome to join him and learn more about his research. Six months later, I had booked my stay at the Reethi Beach Island Resort in Baa Atoll and my visit dates were to co-inside with the new moon of August.

DAY 1 – Like every other day, Guy's research boat was always first to arrive at Hanifaru. Picking me up on the way from the Four Seasons, the journey from Reethi Beach to the bay had taken about 40 minutes. Arriving at the bay, Oli made a quick note of all the safari boats that were anchored in the distance before introducing me to the site. I was surprised how small the bay was and as I explored the predominantly sandy site, I thought how could this place ever be as special as it is supposed to be. For over two hours I explored the bay continuously looking down into the water at the plankton waiting for something to happen. Eventually, Guy who had been surveying the bay from the roof of the boat entered the water and as he told Oli and I that there was activity further up the bay, I excitedly thought to myself, 'this is it'. Finning against a strong choppy current for what seemed like an eternity, I found myself in deeper water with a much higher concentration of

plankton. The swim was worth it and as I slowly approached a 3-metre wide manta, I floated mesmerised by its graceful swimming pattern and my exhaustion. Snapping out of my daze, I began to photograph the manta as it circled just under the surface. Deeper down more mantas fed and as Guy free dived down effortlessly to 10-metres to take his identification shots I thought to myself, 'I really need to learn how to free dive'. Two minutes later, my manta had decided to join Guy and the other rays and as they fed, the tranquil silence of the day was disturbed by the sound of a boat engine. Within five minutes of our reaching the mantas, almost like we were being watched from afar, a boat full of tourists in day glow yellow and orange life vests jumped in to see the mantas. Distracted by how many of the group could not swim or use fins, I had not noticed that the mantas had moved away from us. It was obvious that they had been disturbed by the new visitors splashing at the surface and as the mantas moved on, the group thrashed about trying to keep up. Eventually, the mantas stopped to feed on a cloud of plankton at the surface and as the group caught up I watched as the chaos continued. While some of the visitors panicked and treaded water, other more confident members of the group ducked down to try to touch and grab at the feeding mantas. Shocked, I watched as the group's supervisor turned away in the hope that his guest would simply stop what he was doing. Oli had also seen this and as he swam towards the snorkeler to tell him to stop, the supervisor, doubled back quickly and signalled to the guest that touching was not allowed. As the food disappeared, so did the mantas and as the last of the manic group of sightseers boarded the small boat, silence fell upon the bay again and it was all over.

DAY 2 – Resulted in a complete blank and on the return journey I had decided to spend Day 3 on Reethi Beach for some R&R.

DAY 4 – Swimming over to the cleaning station and with plenty of plankton in the water, I watched as a giant shoal of fusiliers fed on the soup of microscopic sea creatures. After twenty minutes, a manta ray glided along side the small reef to be cleaned. Moments later, two more

RETURN TO THE CLEANING STATION FROM THE SHALLOW BOWL

Performing a tight turn in the shallow bowl section of the bowl, the trail of mantas head back to the cleaning station.



mantas arrived and as the density of plankton increased, so did the manta activity. Waiting patiently, I peered down at the cleaning station, wondering what would happen next and as another manta joined the group, I checked my camera and prepared myself. I did not have to wait long and before I knew it, several mantas suddenly started to circle towards the surface, feeding on the soup of plankton all around me. The experience was incredible and as the group synchronised so that they could all feed together, I watched with amazement as twenty-five large manta rays circled and barrel rolled with mouths wide open less than a metre away from my camera. As quickly as they had surfaced in front of me, the group suddenly changed their swimming pattern and led by one manta, followed one by one to the shallow bowl of the bay. Swimming frantically after the group I watched them gracefully avoid each other as they fed on the dense soup of plankton that naturally collected in this part of the bay. After thirty minutes another boat arrived and as it reversed into the bay, divers entered the water like groups of navy seals jumping out of a plane (GO!-GO!-GO!). As divers descended, I watched the behaviour of the large group of mantas suddenly change. With the boat revving to get back out of the bay and away from snorkelers, white foaming water disturbed the mantas that were trying to keep in formation. With twenty divers stirring up the sediment, all trying to position themselves for their dream money shot, I watched in amazement as the scene turned from tranquil into hectic. With the boat well clear of the bay, the mantas soon re-grouped

and as they negotiated through endless streams of bubbles, I saw yet another side to Hanifaru Bay.

DAY 5 – Observing from the roof of the boat, Guy had noticed some activity at the far end of the bay and as we approached the corner which led out into the channel, a group of fifteen large mantas swam effortlessly in the strong current. Clutching my camera I jumped into the water and instantly felt the strength of the current as it pulled at me towards the channel. Getting my bearings, I turned to face the reef and as I started to fin towards it, I suddenly found myself being face to face with the giant trail of mantas. Although full of plankton, the bright early morning sun made the water look clear and as I photographed the group swimming and feeding in the strong current I thought to myself, how different and natural this encounter was. Eventually the activity dropped off and as I handed my camera up and followed it onto the boat, I collapsed exhausted and thought to myself, 'I really need to get into shape'.

DAY 7 – Unfortunately I had no choice about missing Day 6 as it fell on the only day of the week that the boat did not visit the bay. However, with some great encounters, some good photographs and a few more days ahead of me, I enjoyed the day relaxing on the island and tried very hard not to think about what I could have been missing. As we approached the bay, Guy observed the weather conditions and mentioned that they were favourable based on the new moon, tide and wind

direction. With the boat anchored on the edge of the bay I noted that the safari boats had returned and as I prepared my cameras I realised that photographic opportunities were going to get tougher from here onwards. Finning over the cleaning station and I was the first in the water. Several boats from neighbouring islands that passed the bay every day on their way to their morning dives had turned up in hope of manta activity but had moved on quickly after confirming that there were no mantas in the bay yet. With plenty of plankton in the water, it was not long before the mantas arrived and as I made the most of being on my own, I became gradually aware that the dive boats were finally moving in. Watching in sheer amazement, I found myself staring into the eyes of a hesitant snorkeler who was shakily standing on the dive platform of a boat reversing directly towards me. As I watched the deck hand trying to hurry the woman to join her fellow snorkelers, the boat engines suddenly stopped, almost as some form of gesture to the snorkeler that it was safe to jump off the platform. Suddenly the captain shouted at the deck hand and with this, the cautious snorkeler was suddenly nudged into the water with urgency. Shouting back to his captain that the snorkeler was clear, the engines roared and as the boat moved away, it left a mass of foaming white water right in front of the trailing mantas. Finding myself competing with so many people, I decided to wait patiently away from the crowds of snorkelers and divers that were packed in and around the shallow bowl and the cleaning station. Eventually my patience paid off and as



HANIFARU CLOSE ENCOUNTER

Wait and be patient and the mantas will get very close.



THE FIRST ENCOUNTER

Photographing late afternoon with orange light can be a challenge.



MORE DIVERS & BUBBLES

Manta's try their best to avoid the lines of bubbles from the divers.



the impressive trail of giants made several passes to and fro, I enjoyed and captured the graceful action pretty much un-disturbed. Confused by the dwindling numbers, I made my way back to the boat where I joined Guy and Oli who were also taking a break. Chatting to Guy, I managed to establish that the earlier than normal disappearance of mantas was due to the strong wind that had blown all of the food out of the bay. This had resulted in most of the mantas following it and as I stood on the roof of the boat, I could see the dark shadows of mantas in the shallow outskirts of the bay.

DAY 8 – Descending down the slope into the shallow bowl, I checked my contents gauge before settling down for my first and last manta dive encounter. The mantas had arrived early that morning and as I settled into one spot, I learnt that the mantas would come closer to a diver if they kept still in one place. Staring up at the sun, I watched as thousands of shiny fry fed on the plankton while a manta circled a group of snorkelers at the surface. Mesmerized by the bright sun and the collage of movement I finally lifted my camera to capture the moment. Looking back across the bowl I continued to watch mantas do their tight turns before trailing back to the cleaning station. Suddenly, one of the rays glided towards me and as we watched each other, it stopped and gently rested itself on the seabed only metres away. Amazed by this encounter, I slowly lifted my camera to adjust my settings and as I gradually lowered myself into position, I watched in sheer amazement as a videographer swept right across me only to scare the manta off. With only forty minutes bottom time and little to show for it, I finally made my way back to the boat where I happily exchanged my BCD and cylinder for a snorkel.

DAY 9 – By the time day nine had arrived, I had mixed feelings about it being my last day. On the one hand, I had never felt so overwhelmed about such amazing animal encounters. Even my experiences with the whale sharks of Djibouti earlier this year had not been as special as this. However, on the other hand, with the big groups of divers arriving over the last couple of days, I had become increasingly aware of the competitive squabbling that was going around the bay. The peace and quiet of the bay had also gone due to one of the dive boats that ran its noisy compressor continuously. Clutching my camera I finned my way over to my most favourite spot in the Maldives and waited for the giants to arrive. The encounters on this day were as spectacular as all of the others. With lots of plankton at the surface, many groups of mantas barrel rolled together keeping perfectly spaced to ensure that they did not collide with each other or the divers and snorkelers. With about forty mantas and over double the amount of people in the water, I decided that it was time to call it a day. During the chaos, I had accidentally dragged my fin along the back of a trailing manta and feeling quite bad about the incident, I felt my being in the water was simply contributing to the problem that Hanifaru was suffering from on this particular day (too many people in the water). Back on the boat, the drama continued to unfold as a dive boat drove right across the cleaning station only to pick up a bunch of divers that were too lazy to swim back to the boat. With a strong wind and current pushing this

boat towards the shallow reef and a lot of people still in the water, I sat and watched the frustrations of other observers elevate while the captain tried to negotiate his boat out of trouble. The drama continued as more boats arrived and while they all competed for mooring space around the slope of the shallow bay, more snorkelers entered the water. Finally, as one of the boats hastily tried to secure its position by prematurely dropping its anchor directly over the shallow bowl of the bay, the tension erupted.

Sitting on a seaplane looking out of the window, I say a sad goodbye to Reethi Beach. Up in the air I try to get my bearings and as I do, I look for Hanifaru Bay. As the plane sets its course back to Male I realise that I am going to have one last chance to see the bay. A kilometre above sea level and as I peer out of the planes small window I can see that no one is at the bay yet. It looked so peaceful and as I quickly reflected back over some of my amazing experiences I contemplated with sadness that the mantas would most probably disappear from this special place if monitoring measures were not properly enforced to control visitor activity and behaviour.

A very big thank you to Guy Stevens for making my visit to Hanifaru Bay possible.

ADVICE

If you would like to see the mantas of Hanifaru consider the following:

- Learn to free-dive and when you visit the bay leave your dive kit back at the resort. There is no need to dive Hanifaru bay and the chances of getting a decent photograph without bubbles, divers and sediment is extremely slim.
- Watch the behaviour of the rays and don't chase them. The rays will hang around for some time, so observe and get into position and you will find they will keep on coming back to you.
- Hotels that offer access to Hanifaru – Nearly all hotels in the region offer some form of access at some point during the week but I found there are no guaranteed daily visits other than by the Four Seasons. The Four Seasons have a hotline to Guy and whenever there is good manta activity the resort is the first to know. Most dive centres deliberately plan their dives so that they pass the bay during the periods that mantas are expected. Check with the dive centres before booking your resort – Reethi Beach offered snorkelling excursions specifically to the bay twice a week.
- Photography – go wide but not too wide. I used a Nikkor 10.5mm fisheye, which was a little too wide. Next time, I would use the 16mm fisheye. Leave your camera strobes and shoot with whatever natural light there is.
- Make sure you familiarise yourself with the rules of the bay and don't assume that because someone else is doing it that its okay for you to do it too.
- Don't expect the mantas to be there on a specific day or time and try to overlap your visit three or four days either side of the full or new moon.
- Try not to tread water and if you do always pay attention to your fins and the mantas below.
- If free diving, always be careful when surfacing to avoid overhead collision with mantas.
- Consider wearing distinctively coloured hood for protection from the strong sun and making you visible in the water.
- Keep an eye out for boats entering the bay.



SHARKWATCH ARABIA UPDATE

AL GHURAIR FOODS & EDA SPONSOR A SAT TAG FOR WHALE SHARK RESEARCH IN THE REGION

FEATURE **DAVID P. ROBINSON, JONATHAN ALI KHAN AND WARREN BAVERSTOCK**



Whale Shark tagging in Djibouti

UPDATE

The last quarter has gone so fast, yet better than we could have hoped for. Sightings are coming in every week now from around the region bringing the grand total of sharks recorded since the project started in June 2010 to 41. From those 41 encounters, we have managed to identify 20 individual sharks; a great result. In September alone we had nine individual encounters recorded and in October there were two whale sharks reported inside two different shipping ports in Dubai, both at the same time!

Huge thanks go out to Al Ghurair Foods and EDA who have teamed up to kindly sponsor a satellite tag for Sharkwatch Arabia that will be deployed in the next couple of months. This tag will help to further our knowledge of wild whale shark movements within the region and beyond.

TAGGING

To properly protect a species or population one must understand how it utilises the environment in which it occurs and satellite tagging is one tool that allows us to do this. Satellite tracking is a modern day tool used to track the movements and behaviour of animals in the wild with as little behavioural interference as possible. Recent advances in tracking technology have allowed the tracking of large animals such as the whale shark. The tracking of whale sharks is now occurring all over the world, but to date no wild and free-swimming whale shark has been tagged in the Arabian Gulf or Gulf of Oman.

The tagging process is simple; a tag is attached to a free-swimming shark by an anchor that is inserted into the thick dermal layer close to the dorsal fin by a specifically designed applicator pole. The tag trails behind the animal on a short metal tether and collects data on the location of the animal as it moves through the water column.

The type of tag that will be used for the project are built by a company called Wildlife Computers and the model we will be using is the MK10-PAT. This type of tag is configured



SHARKWATCH ARABIA

with multiple sensors: a 12-bit analog-to-digital converters provide high-accuracy depth and temperature readings. A 10-bit analog-to-digital converter is used for light-level and battery voltage readings, as well as other housekeeping chores. Depth and temperature sensors are calibrated to provide an accuracy of 1% of the measurement. Depth and light level are temperature-compensated to provide consistent readings through temperature variations.

- Depth is measured from 0 to 1000m with a resolution of 0.5m.
- Temperature is measured from -40°C to +60°C with a resolution of 0.05°C.
- Light level is measured as irradiance at a wavelength of 550nm. The sensor measures from $5 \times 10^{-12} \text{ W.cm}^{-2}$ to $5 \times 10^{-2} \text{ W.cm}^{-2}$ in logarithmic units. Dawn and dusk events can be discriminated at depths up to 300m in clear water conditions.
- Location: Daily longitude and latitude can be calculated from transmitted light-level curves and the tag also transmits its pop-up location via satellite.

The tether that attaches the tag to the animal has a built in erosion process which degrades the tether over a period of time until eventually it is released from the animal. Once the tether breaks and the tag reaches the surface it then starts to transmit the data it has collected to orbiting satellites which in turn are collected and interpreted by a company called ARGOS based in France. Argos will then send the data to the researcher for study.

The tag has a life span of around 365 days but the tether will be set to degrade after a period of 120 days as it can become encrusted with bio-foul if left for too long. It is possible however that the tag will become detached before this period as they can become snagged on objects that the shark comes into close contact with.

MANY THANKS

We would like to take this opportunity to thank the following individuals for their support and for sending in sightings to Sharkwatch Arabia: Soren Stig, Steve Wood, Jeff Collett, Ngata Tapsell, Keith Wilson, Cecile Campagne, Ammar Hilal, Julie Allen, Sue Giles, Warren Baverstock, Denise Losi, Abdul Rahim, Nasser Al-Khanjari, Mark Preece, Roger Jepson, Chad Zlateff, Rima Jabado, Mike Dickinson, Michael Diver, Ernst Van Der Poll, Andrew Wilson, Sandra de Bunk & Kurt Bonami.

If you or your company would like to sponsor a satellite tag then please get in touch via the Sharkwatch Arabia website. If you encounter a whale shark in this region, please visit www.sharkwatcharabia.com and report your sighting.

Photos by Warren Baverstock – www.verstodigital.com



SHAIKH IBRAHIM ISLAND IN BAHRAIN

AMAZING SITE FOR SNORKELING AND EDUCATIONAL ACTIVITIES

FEATURE **HUMOOD NASER AND KHALIL AL-WADAEI**



Recently, EDA sponsored a campaign to clean up Shaikh Ibrahim Island in Bahrain.

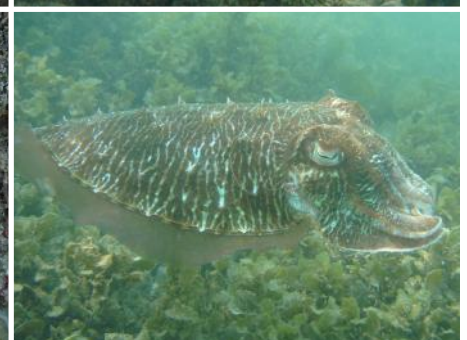
This island is located within 1 km off the eastern coastline of Bahrain. The island has a great potential for eco-touristic and educational activities. Its naturally occurring rocky shore, makes it one of the few remaining islands that has not been influenced by coastal development and modification.

The island and its surrounding waters hosts a variety of living organisms that make it an ideal site for enjoying natural features of coastal and subtidal environment. Several birds are observed occasionally on the island including Socotra Cormorants.

Likewise the coastal and subtidal areas are full of fascinating organisms including green and brown algae, and several species of tube-worms, gastropods, bivalves, sea stars, sea urchins and cuttle fish. Particularly, pearl oysters are widely distributed around the island. Populations of gobies are observed in high densities.

Physical characteristics of the island including its location near the main land, water clarity, slope and depth are suitable for snorkeling activities. The island could be utilized for either training of snorkeling or diving for exploring the island's biodiversity.

On the other hand, the island has an importance in environmental education. As naturally occurring rocky shores are limited in Bahrain, this island provides an open laboratory to examine marine organisms. Several educational studies can be carried out including classification, identification and ecology of tidal pools. The shallow subtidal water provides ideal opportunities to students and snorkelers to engage in exciting and significant water investigations.



CNIA BIHAR CAMPAIGN

WORKING TOGETHER TO ENSURE A SAFE MARINE ENVIRONMENT FOR ALL



American International School Students with Bihar Goodwill Ambassador; Thani Al Qamzi holding the 996 flag.

Bihar is a Critical National Infrastructure Authority (CNIA) initiative focused on ensuring people are aware of maritime rules and regulations, so they can use and enjoy the waters of Abu Dhabi safely.

Bihar means 'seas' in Arabic and represents the CNIA's focus on maritime safety, security and protection. The Bihar campaign was initially launched by the CNIA in 2009, under the slogan 'For Your Safety'. The CNIA was the first national institution to develop a campaign focused on increasing public awareness about maritime safety aimed at all sea goers.

In 2010, the Bihar campaign adopted the slogan 'Better Together' to convey the message that the CNIA needs the support of everyone in the Emirate to ensure the safety, protection and security of Abu Dhabi's maritime environment. The CNIA wants to make sure that the public can communicate efficiently and effectively with them online, over the phone and in person.

A key element of the Bihar campaign has been raising awareness of the 996 number, which is used to place a call for emergency help out at sea and can be used for maritime-related advice, such as sea conditions and navigation support.

The campaign has also engaged with the public about the importance of the E-Passport device – required for boats under 300 tonnes – which provides the exact location of marine vessels and helps rescue teams respond quickly to emergency calls.

Additionally, CNIA Bihar representatives have been talking with people at water sports events, malls, schools, colleges and public areas over the duration of the campaign, in order to reach out to people in the Emirate and encourage them to ask questions and learn more about the CNIA's role and the Bihar campaign.

The CNIA launched the Bihar website and Facebook and Twitter sites at the start of the 2010 Bihar campaign:

www.bihar.ae
[Facebook.com/Bihar996](https://www.facebook.com/Bihar996)
[Twitter.com/bihar_996](https://twitter.com/bihar_996)

These online resources have been providing up to date information for sea goers, ranging from campaign news to weather updates. Photos and videos related to the campaign have also been uploaded to these pages.

Notably, the CNIA's Bihar campaign set up a stand in Abu Dhabi's Marina Mall in early October and encouraged visitors to participate in a competition – answering Bihar-related questions – to be in with a chance of winning a jet ski. The Winner, Mohhamed Ahmed Al-Yafei said, "I learnt new information, like the 996 maritime emergency number and CNIA's role in ensuring maritime safety. It's great to win this prize. I didn't think I would win, I couldn't believe it. I just answered the questions as accurately as I could after reading related material and asking questions about the campaign."

The Bihar campaign has also lent its support to the Inaugural Abu Dhabi Swimming Festival and other water sports events, such as the FI Powerboat Racing and Jet Ski Championships organized by Abu Dhabi International Marine Sports Club (ADIMSC). At these events, Bihar erected information stands where CNIA representatives spoke with the public, encouraged children to color in maritime-related pictures and handed out giveaways. The most popular giveaway at these events was a UV ray detector wristband that indicates how long the wearer has spent in the sun.

Other successful initiatives initiated through the Bihar campaign have been the 2010 Bihar Schools Program and Networking Program, which have reached out specifically to school children, fishermen and beach goers, to ensure that they are familiar with safety guidelines, licensing procedures and safety measures.

The CNIA has linked up with other government agencies to coordinate activities at the Unified Center in Mina Zayed which opened in May 2010. The Unified Center issues and renews licenses for boat owners, fishermen and jet ski operators and issues and fits E-Passport devices. The CNIA, Ministry of Environment and Water, Environment Agency – Abu Dhabi, Department of Transport and Ministry of Transport all operate under one roof at the Unified Center, where they work together to better address the needs of the public that require E-Passports and marine licenses.

The CNIA has been supported throughout the 2010 campaign by Bihar Goodwill Ambassador and Team Abu Dhabi FI Powerboat Driver, Thani Al Qamzi, Thani champions the CNIA's public awareness efforts and works to convey an understanding of how important it is to take safety precautions and measures out at sea. His outreach work helps to ensure that people have the opportunity to safely use and enjoy the Emirate's waters as much as he does while training and racing. At Bihar's American International School visit in November, Thani said, "You need to make sure you look after yourselves. It's best to take things easy, not to speed too fast on jet skis or boats." While, related to safety precautions, Thani Al Qamzi noted, "I always make a point of telling my family and friends about the 996 maritime emergency number."



بحار
bihar



يأتيكم من جهاز حماية المنشآت والمرافق الحيوية

a CNIA initiative | www.cnia.ae



EDA DIGITAL ONLINE 2011

FEATURE **MARCELO MARIOZI – EDA PHOTOGRAPHY COORDINATOR** (PHOTO@EMIRATESDIVING.COM)

INTRODUCTION

The Digital Online Underwater Photography Competition is a yearly internet based event with the main objectives of:

- Gathering information on the number of underwater photographers in the UAE;
- Discovering new promising underwater photographers in the UAE;
- Developing the human interaction with the underwater environment by displaying the beauty of its fauna and flora.

Digital Online is open to all UAE Nationals and all people living in the UAE under a valid Residence Visa and holders of any diving certificate.

CATEGORIES

Wide Angle (W): Photographs taken with a wide-angle lens (or adapters that provide an equal level of field-of-view), with or without human presence, portraying the natural beauty of the underwater environment and/or the human interaction underwater (see Orientation & Restrictions).

Fish (F): Photographs of whole fish and/or fish parts as the main visual element (NOT mammals, crustaceans, mollusks etc...) taken with any lens, portraying its natural behavior and environment.

Macro (M): Photographs taken with close up-equipment, portraying underwater flora and/or fauna. The main element NOT being fish.

ORIENTATION & RESTRICTIONS

Digital Online is open to photographs taken all over the world;

Photographs submitted must be unpublished pictures that have NOT received any award and/or prize in any other form of contest/championship;

Digital editing will only be allowed if applied in a uniform manner over the whole image (such as contrast, white balance, saturation and sharpening);

Selective editing such as (but not limited to) layers, brightening/darkening part of the picture, or cropping are NOT accepted;

Multiple exposures are NOT accepted in any category;

NO photograph that portrays manipulation characteristics, harm (or risk of), bait use or alteration on the habitat and/or species will be accepted;

Photographs with identification (any form, even dates) over the image are NOT accepted; Photographs with models (divers) must show an unquestionable behavior with regards to the underwater environment protection. Actions such as touching, kneeling, leaning, or even positioning the fins in a risky manner to the environment are going to be penalized by the jury;

Wide Angle is the ONLY category that accepts creative techniques as (but not limited to):

- Half-half pictures, where the water half must be 50% or more of the picture;
- Coloured lights, and other effects if done by the time of the image capture;

The following list will result in immediate disqualification:

- Any action against the rules;
- Any deterioration/pollution of the environment;
- Sending pictures taken by other people;
- The use of dead/artificial creatures;
- Moving live animals;
- Pictures of other pictures;
- It is understood that the photographers are responsible for any image used, has authorization from his models/divers and EDA is NOT responsible for any damage/litigation related to EDA Digital Online.

REGISTRATION AND IMAGE UPLOAD

Registration is OPEN from January 1st, 2011.

Registration to Digital Online is free. The participant needs to be a member of EDA and send an email to photo@emiratesdiving.com with the following information:

1. Full Name
2. EDA Membership Number
3. Camera Model
4. Non-Nationals should also add a low-res scan of their Resident Visa (people who have already sent a passport scan to a previous EDA Digital Online Competition do not need to send it again).

All images MUST be sent as an attachment to a single email message. And only the first email received by the organization will be considered valid.

All images must be .JPG files, with at least 3000 x 2000 pixels.

Photographs with less than that dimension might be accepted if the camera model does not provide such a high-res file, nevertheless a "printable A4" image is required.

The images should be named:

Wide Angle Category: w.jpg

Fish Category: f.jpg

Macro: m.jpg

Only ONE image will be accepted per photographer, per category.

The process of registering and sending images is the confirmation that the photographer accepts the rules of the event, and recognizes EDA and only EDA as capable of evaluating the cases not contained herewith.

You will receive an email to confirm the registration.

DEADLINES AND RESULTS

The deadline timing for registration and image upload is midnight. The deadline date will be published in the next EDA 'Divers for the Environment' magazine issue in March 2011. The results will be made public and the prize ceremony will take place at the next official EDA event which needs to be confirmed.

IMAGE VALIDATION

Before being exposed to the Jury, the images will pass through a validation process. If any photo is found not to comply with the rules, it will be eliminated and not voted by the Jury. The registration confirmation email does not guarantee that the images are valid as this is the sole responsibility of the participant.

THE JURY

The Jury will be composed of underwater photography specialists, local dive VIPs, public authorities, and EDA guests from the UAE and around the world. The Jury will meet in private after the event and its decision is not subject to any form of appeal. The composition of the Jury will be made public at the result ceremony for anonymity and confidentiality purposes.

THE COMPETITION

The Jury will assign a score from 0 to 100 to all images. Only the final image score will be published.

The overall winner will be the photographer that accumulates the most points in the total sum of his photos. There will be prizes and/or awards for the following positions:

| | |
|---|--------------------------------------|
| 1 st Place Overall | 1 st Place Fish Category |
| 2 nd Place Overall | 2 nd Place Fish Category |
| 3 rd Place Overall | 3 rd Place Fish Category |
| 1 st Place Wide Angle Category | 1 st Place Macro Category |
| 2 nd Place Wide Angle Category | 2 nd Place Macro Category |
| 3 rd Place Wide Angle Category | 3 rd Place Macro Category |

IMPORTANT NOTE

EDA may use the images at will, exposing these images on its webpage, magazine, or in any way associated with the subaquatic environment cause, such as products, booklets, publications etc. with no copyright to the photographer nor his heirs but the mention of his/her name.



EDA, Sponsors and Supporters are not responsible for any accidents the participants may incur or provoke as a result of his/her participation in this event.



A DIVER'S DREAM

FEATURE **EMMANUELLE LANDAIS** PHOTOGRAPHY **WARREN BAVERSTOCK** – WWW.VERSTODIGITAL.COM

Mention Malaysia to a scuba diver and their first thought will probably be of Sipadan off the east-coast of Borneo. The marine protected reserve has crystal waters and a marine ecosystem so rich it wows even the most-hardcore divers, drawing them back again and again.

But if you fancy something not-so-easy-to-reach and worth every penny, the outlying islands of Terengganu – a region situated in north-eastern Peninsular Malaysia – will not disappoint.

Independent travelers as well as groups are both well catered for and no permits are needed to dive around the islands.

Getting there is half the fun with flights catered to Kuala Terengganu by Air Malaysia from Kuala Lumpur. A short bus ride from Terengganu airport to the boat harbour and then you're just 45 minutes by sea away from paradise.

Typical boats are small fiberglass speedboats, however there is an air-conditioned ferry as well as much slower long wooden fishing boats to take you across.

The colour of the ocean will transfix you turning from blue to green to turquoise as

the boat reaches its destination. And what a destination. Clichéd as it is, it literally brings joy to the eye that it is exactly as in the postcards. And that such places really do exist: Coconut-fringed white beaches, greenery overlapping the hotels and beach bungalows, and a tray of cool welcome drinks.

Offshore islands such as Pulau Redang, Pulau Lang Tengah, Pulau Kapas, and Pulau Perhentian Kecil (Small Perhentian Island) and Pulau Perhentian Besar (Large Perhentian Island). The Malay name Perhentian is translated as "place to stop" and this is exactly what these two islands were for traders traveling between Malaysia and Bangkok in years gone by.

The islands are relatively rural and offer a tranquil atmosphere. The hotels can seem busy during meal times but during the day guests are split into the pool-goers, the beach walkers and the divers.

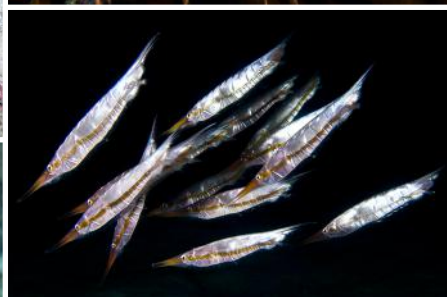
The quality of accommodation will vary depending on which side of the island you stay on. For example on Perhentian Besar, the Arwana Perhentian Eco Resort & Beach

Chalet, located at Teluk Dalam Beach is not an actual eco-resort if only in its name. A sewage pipe also leads from the various chalets straight to the sea.

Luxury seekers should probably avoid this one but the at-least fifteen year old resort has everything backpackers would need. The Arwana Dive Centre is a PADI Resort Dive Centre.

One guide book's advice mentions to take care before choosing your dive centre as some do not have the proper equipment to repair regulators as they are so new. On the other hand the benefit of new dive centres opening is the low cost.

Ally Landes, events coordinator from the Emirates Diving Association has dived in both Sipadan and Terengganu. "Terengganu was unknown territory to me and offered an exceptional underwater world of wonders. Although there is a 90 percent coral bleaching manifest, the diving in this region is superb and the coral bleaching did not affect the discoveries made on each dive site," she said. "There is such care taken in the underwater world over in Malaysia that some of the dive sites have been closed off from divers to



protect the corals from too much stress. The dive sites that are open are just as lively and picturesque as the next one, each offering their own individual topography and marine life, leaving you saddened every time you have to resurface but overly excited as you all try to share what you'd seen at the same time forgetting to take that all important breath. Exquisite!"

Popular dive sites include the Pinnacle also known as Tokong Laut or "Temple of the Sea", a pinnacle jutting out from the sea bed, and Sugar Wreck, an easily accessible 3500-ton sugar hauler.

In addition to coral and fish, the Perhentians are home to sea turtles and many species of shark. During a week's trip and fitting in around eight dives, EDA divers recorded seeing Hawksbill turtles, Jenkins Whip Rays, Blue Spotted Stingrays and Bamboo Sharks as well as Blue Ringed Angelfish, Yellowtail Barracudas, Bumphead Parrotfish, Crocodile Fish and even Giant Frogfish.

Apart from footpaths that cut through the jungle, there are no roads on the islands. The only way to get around is by walking through the jungle or taking a sea taxi. If you tread carefully, you may even encounter some of the islands' shy wildlife on the way, such as monitor lizards, fruit bats, squirrels or even the elusive mouse deer.

Redang Island the largest islands dotting the South China Sea off the Terengganu coast, offers great diving as the water visibility is considerably better. It is also the most expensive of the east coast islands. Redang is well known as a turtle sanctuary, and they usually lay their eggs on Turtle Beach on the north of the island.

The proximity of perfect white beaches make all the islands worth visiting, either for a pure island holiday or as an add-on to a city trip to Kuala Lumpur.

TERENGGANU ISLANDS: REVEALED

FEATURE AND PHOTOGRAPHY **MARC ANTHONY VILORIA**



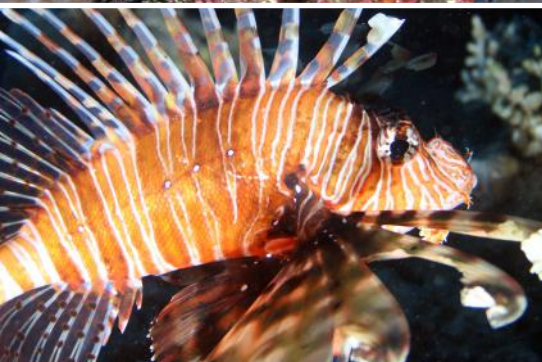
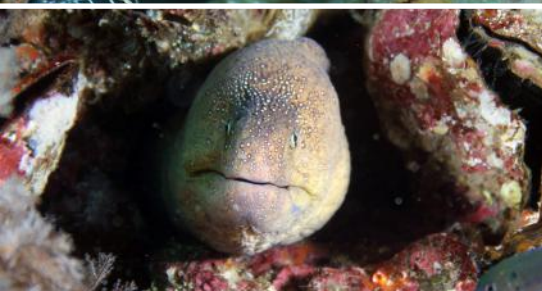
I am sitting in the lounge of Arwana Resort watching the calm waters of the South China Sea as it softly breaks onto the shore. It is our first activity day on Perhentian Island after a long 16 hour trip from Dubai. We arrived a day earlier in the late afternoon after our hop-on, hop-off journey from the airplane (Malaysia Airlines), bus (Hedaco Travel & Tours) and boat rides, from one city to another town. I had walked by the shore towards a half-built wooden jetty. I immediately got connected to the harmony of the gushing waters, and when I turned and looked, a thick forest loomed in front of me framing the nature of this island...this is Perhentian.

I hurriedly ran back to the resort and to the dive center to prepare for the much awaited diving. I couldn't help but imagine the beauty of the underwater world that was awaiting me. The first 5 dives happened in 2 days while in Perhentian. All the dive sites were accessible within a 10-20 minute boat ride running across crystal clear waters around the island. Diving in Perhentian is somehow unpredictable. On two occasions, the visibility changed dramatically from 20m to 5m. However, the marine life is so healthy that you will be taken aback with its spectacular beauty. As a photography enthusiast, I had the chance to take photos of various subjects from different perceptions. I had been surprised as well by the amount of juvenile fish graciously swimming around the top of Sugar Wreck, one dive site that we dove into. Looking from the surface, the water seemed to be at complete silence but descending to around 7 meters depth, I thought I had missed the wreck and reached the sea bed viewing this massive amount of fish. Cheered by 5 dives over 2 days stay in Perhentian, we hopped on the boat back to the main land and a 2 hour land trip brought us to another resort in Terengganu, Sutra Beach Resort and ready to dive at Redang Island.

Unfortunately, Redang Island had to wait until the next day due to some unexpected circumstances. I decided to just chill out around the resort and tried to get myself an authentic Malaysian massage. To no avail, I didn't get one. Early next day, we boarded the boat in Merang jetty and off to Redang Island. Eagerly wanting to dive, I was suddenly captivated by the beauty of the island; it is a heavenly paradise on earth.

As I viewed the island from the boat, the clear blue skies and turquoise waters sandwich the white fine grain sand, the coconut greeneries and the happy people on the beach. It created a poster perfect place on the back of my mind. As we settled in the dive center, I immediately felt a warm hospitality from the dive center crew as if I've known them for awhile. We had 3 dives around Redang Island and all of them were grade A dive sites. One dive site called Steven's Stone is composed of 5 short-distant rock pinnacles. Descending to this dive site is by free fall. With no reference, it is quite a challenge and we were very fortunate not to have any drift at that time. I was able to only see 2 of the 5 rock pinnacles due to the massive amount of different marine species that continuously popped out every time I blinked my eyes. The wonder of underwater nature lay within my sight. Click, click, click was all I did. It is definitely a photographer's haven. As the day ended, we headed back to mainland and made a short stop to find ourselves in a very captivating moment of zen and peace. At the Aryani Resort, we had a sumptuous dinner of traditional Malaysian cuisine while enjoying the tranquility of the resort. Whenever one needs solitude of inner peace, Aryani Resort is the place to be. This day was so rewarding, it was like winning the grand prize to a vacation package. We were all smiles when we all headed back to the resort.

Followed by the previous day's experience, I got myself ready for the last dive of the trip. We boarded the Sea Monkey Dive Center boat; a convenient hull boat that relaxed me at it crossed the sea to Bidong Island. The island was a Vietnamese refugee camp for almost 16 years. Commonly known as boat people, the dive site that we dove into is rich with cultural heritage. As I swam across each and every boat I saw, I felt the history of the place and the struggle of the Vietnamese during their refuge days. One part of the dive site are sunken boats of these refugees which were filed up together to form an artificial reef. The site houses a variety of marine species, soft and hard corals and some personal items are still traceable. When I surfaced, I knew that was the end of the diving for this trip and I am so thankful for the fondest memories I had. Nonetheless, I also knew that there were still more activities ahead of us. It was time for our topside adventures.



DIVING

Perhentian, Redang and Bidong Islands are situated off the coast of Terengganu in Malaysia's east coast and are renowned for their crystal clear waters and rich marine life making them premier dive spots. My five days of diving there placed a large value on my logbook to register these dive sites as part of my diving career.

The dive sites around Perhentian Island are all bountiful with large coral structures and several overhangs. All the dive sites that I tried were densely populated with varieties of fish such as snappers, giant puffer fish, yellow tailed barracuda, clownfish, varieties of angelfish. The not so common species that I got to see during these dives were giant and blue-spotted rays, sea turtles and a school of large bump head parrotfish. I was so amazed to see these bump head parrotfish as they plummeted towards the reef taking bites from the corals. You can literally hear the sound as they crunch into it. I remembered from the reef check program that bumpheads are clear indicators of a healthy reef. Arwana Dive Center handled the dive for us in 5 different dive sites: Temple of the Sea, The Lagoon, Sugar Wreck, Tanjung Basi and Terumbu Tiga. These dive sites average to about 17-18 meters in depth and visibility can reach up to 18 meters.

Redang Island dive sites are somehow similar to Perhentian Island. Large pinnacles of coral covered structures that slope down the sea bed are very common around the area. Massive brain corals, tube corals and beds of staghorn corals fascinated my craving for more underwater photos. At one point, I came across a fan coral that securely house juvenile fish. There are plenty of interesting finds like ghost and banded shrimps, decorative crabs and nudibranch that can be seen amongst the corals. I felt at home with the Coral Dive Center's hospitality as they dive us through 3 premier dive sites (Tanjung Tokong, Steven's Stone and Paku Kecil) that averages to about 16 meters depth. The topside beauty of Redang coastline is as equally beautiful underwater. Though below is a different scene, it's a peaceable kingdom where I found a hawk's bill turtle trying to make a meal out of a clump of algae enriched whip corals. Steven's Stone was my personal favorite having spent time registering good macro photographs. I also found 2 large lazy stone fish that were settled in between the rock formations.

We only had one dive in Bidong Island, at the Vietnamese Heritage dive site. One part of this dive site is the replica of the heritage museum similar to the one on the island. The heritage museum still looks fresh as the cement structure is still visible. Not too far are formations of sunken boats used by the Vietnamese during their refuge. Around these artificial dive sites are coral formations encrusting the boats in hard and soft forms. The watchful eyes of a school of barracuda were making lazy circles around the wrecks.

DIVING DESTINATIONS

ACCOMODATION AND THANKS

My EDA buddies and I usually spent dinner time together with an occasional merry-time in beach bars after the meal. It's a good thing the food is pretty fantastic. The simple fried rice and noodles added to the Malaysian traditional spicy dishes. We were often accompanied by the delegates of the Malaysian tourism ensuring their warm hospitality lives up to our expectations. In between dives, I usually cool down either in the resort's swimming pool or at the beach. Redang island as a suggestion is a laid back type of an island where all you can do is get lazy and move your mind out of the city life.

Topside, I got the chance to see the village side of Terengganu while on board the Hedaco Travel bus. Michael, our tour operator, graciously walked us through the different villages and landmarks. When we first arrived in Terengganu, we stopped by a Chinese community to have our lunch. We ate authentic Chinese dimsum and noodles which are so rich in flavor. We also had the chance to visit the Commonwealth Park, which was specially opened for us. This park houses the different grand mosques around the world in miniature form. It is also famous for its crystal mosque, a very unique architecture and one of its kind.

Through all my personal travels, I have never visited and stayed in so many hotels and resorts until this trip to Terengganu. In total, we stayed in 3 different resorts and hotels (Arwana Resort, Sutra Beach Resort and Primula Beach Hotel) plus visited 4 more (Coral Redang Resort, Aryani Resort, Felda Residence, and Ri-Yaz Heritage Marina Resort and Spa)...hmmm that was a lot of marketing. Personally, I recommend Aryani Resort if one seeks for a tranquil vacation. The place is so peaceful and quiet that all you will hear is silence.

This has been an unforgettable experience. There are so many people to thank and I will start in thanking Tourism Malaysia and EDA for making this trip happen. The pleasure of diving with remarkably beautiful buddies: Ally, Reema, Emmanuel, Fei Chin, Ralph, Toni, Kit Choong and Warren. For looking after our expectations, thanks to the officers and staff of the Ministry of Tourism of Terengganu. Thanks to Malaysia Airlines for the safe crossover to and from Malaysia. To our ground handler – Hedaco Travel & Tours. To the dive centers and hotels mentioned in this article, I thank you all.



GASCO DIVING TRIP TO SIPADAN – OCTOBER 2010

FEATURE **NAJEEB AL MASKARI & QAIS OMER**



On Friday the 23rd of September 2010, a group of 10 from GASCO's most dedicated divers embarked on a journey that took them east to a land of beauty, oriental magic, exquisite untouched nature and one of the most famous dive spots on earth. Yes, it's Malaysia on the tiny island of Sipadan.

It took a tiresome 16 hour journey traveling by air, coach and boat to reach our final destination. We set off on our journey from our beloved capital Abu Dhabi. A seven hour plane journey took us to KL airport, after a 3 hour wait and 2.5 hour flight we arrived in Kota Kinabalu the capital of the Sabah province in Malaysian Borneo. After another hour wait we were in the air again heading to Tawau. The journey wasn't yet over, after an hour bus ride we arrived at Semporna port and boarded a small boat at dusk. The sea glistened in the light of the moon like mercury on black velvet, giving us all a sense of wonder and excitement in anticipation of what lies beneath its surface.

The journey to Mabul took around 45 minutes. As the boat began to slow down we noticed that people were gathering on the jetty ahead of us. To our surprise around 20 people from the Mabul Resort staff and the Borneo dive crew had come to greet us with smiles and fresh juice that made us feel as if we were part of an official delegation. Mabul became the base point for all of our following dives.

Within the hour we had all gathered again to prepare for our first night dive. We dove straight off from the jetty and were immediately confronted with a huge sleeping turtle that had wedged itself between two large boulders; a fast moving coral crab that was literally invisible when idle and when it moved it marched forward like a tarantula spider; hermit crabs with anemones living in their shells, and a strange looking bat fish that moved through the water in slow motion like a ghost in black robes. These were just some of the creatures that we saw that night.

The following day we were dedicated to diving at the magical island of Sipadan, a mere dot in the ocean, above water it's no larger than a football pitch. It was formed by corals growing on the submerged tip of an extinct volcano that from the reef drops steeply down to a depth of 600m. No resorts have been allowed on the island since

2002 when it became a protected site. It's ranked one of the most important dive sites in the world due to the sheer concentration of marine life. Around 3,000 species of fish and hundreds of corals have been identified there. It is also an important breeding ground for green and hawksbill turtles. We counted 26 turtles in one of the dives! White tip and gray reef sharks were also very abundant. Unfortunately, due to restrictions on the number of permitted dives per day per dive centre, it wasn't possible to stay any longer. The entire team would agree that it was definitely the best dive site that we had ever visited.

Jacques Cousteau once said, "I have seen other places like Sipadan, 45 years ago, but now, no more. Now, we have found again an untouched piece of art".

For the remainder of the dives we visited spots around Mabul that were spectacular in their own right, but quite ordinary compared to Sipadan.

On our final day of diving we had prepared an underwater steel statue of the GASCO logo that we embedded in a concrete base with a stainless steel plaque with all the dive teams names engraved on it. Its purpose is to stand as a memento to our epic adventure and remain as a destination for future GASCO divers to visit the site.

We lowered the GASCO statue near the jetty in Mabul Resort; here are the coordinates that can be found on the Google maps: E1183752.2 N041459.5

Our trip wasn't solely dedicated to diving. We also spared some time for other activities such as visiting the nature reserve on mount Kuta Kinabalu, as well as go on a white water rafting expedition that was very exhilarating.

One of our main activities was visiting the local mosque at Mabul where we attended the Dhuhr prayer and then visited the adjoining school and distributed GASCO gifts, books and made private donations to the mosque.

We would like to thank GASCO Recreation Committee for their support and Discover Orient Holidays for organizing and facilitating the trip.

RAS MUSANDAM (A REEF DIVE IN THE MUSANDAM)

FEATURE **STEPHANIE DAVIES – SCUBA DUBAI**

Ras Musandam, also known as Wall Street, is a reef dive and can be found on one of the largest islands north of Musandam in Oman. The co-ordinates are N26°23' 12.1" E56°3'29.1" and as with all the sites here in the Musandam, a satellite navigation system is very much needed in order to get you there before the sun sets!

If driving from Dubai or any other UAE state to Oman, please remember your passport, as there's an armed patrol on both sides of the border that will check you have a passport and the right visa. An Oman visa isn't necessary to enter Little Oman, but you will need a valid visit or resident visa in order to get back into Dubai.

The temperature and visibility does vary, depending on weather, time of year and what the currents are doing. If you have been in the Middle East for a time, you will probably think that the winters here are a bit cold. With water temperatures hanging around 14-16 degrees, a 5mm or thicker wet suit would be needed. If you have just arrived from colder climes, then that would seem pretty warm. It starts to heat up noticeably around April, to around 22-24 degrees. So you may be able to get away with a 3mm long wet suit. By July/August the water is a bit like diving in a bath, with maximum temperatures reaching around 30 degrees. At this time you may like to dive in a rash vest and shorts, however, a 1mm or skin wet suit would give you some protection from jelly fish and other hazards in the water.

Visibility can be amazing at around 12-15m but that doesn't mean you will see more. Good visibility may mean there are no currents and or less plankton, which means there will be less fish feeding in this area. On most occasions that I have been diving here, the visibility has been between 7-10m. Thermo climes can also make the water appear a little hazy and can reduce or increase the temperature by a few degrees.

As you approach Ras Musandam you will notice the sheer cliffs that drop down 6m into the sea. These ledges widen and drop further still to around 25-30m, here you can see purple/blue gorgonian coral, interspersed with green whip coral. This is also where a large school of banner fish like to hang out and amongst the boulders, rock formations and crevices you will see painted spiny lobsters hiding with only their white antennae visible and moray eels hanging their heads out, with their mouths open, just like a dog hanging its head out of a car window. As you come to the Northern point and round the corner, there are quite a few swim throughs and holes, framed by the dramatic purple gorgonian coral and filled with anthia fish, which make for a very artistic photo.

Other aquatics seen here are Arabian angel fish, yellow snappers, wrasse, and parrot fish. Most species of parrot fish are hermaphrodites. They start off as females, and then later change into males, with this comes a change of colour too. As juveniles they are often a dull red, brown or grey colour and as they mature they turn bright green or blue with distinct patches of pink or yellow. Parrot fish have mouths and teeth especially designed to nibble at the algae, which engulfs the coral, and although they are generally classed as herbivores there are some species that eat coral polyps. They play a very important part in producing and distributing coral sand and keeping the coral from being overrun by algae.

Night diving gives you the opportunity to see the parrot fish sleeping in rocky nooks. They are able to do this because nearly all of the species produce mucus from their mouths, forming a protective bubble around

them. This is thought to hide their scent from predators, such as moray eels, and if broken, give them an early warning sign to flee.

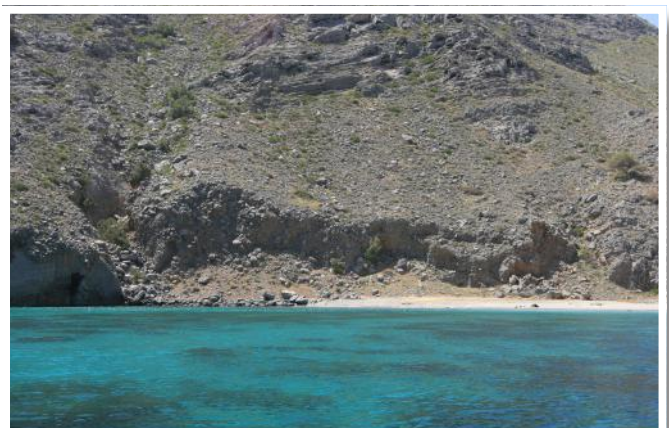
As interesting as this dive is, it is really only recommended for experienced divers as one usually experiences currents here, making it an excellent drift dive, although not for the faint hearted! Whizzing along with the fish can be exhilarating, and of course strong currents tend to attract the larger fish, such as orange spotted trevally, black tip trevally, giant trevally, tuna, and mackerel. Sharks, dolphins and whale sharks have been known to frequent this spot when there is a good current flowing! Keeping this in mind, every diver should carry a DSMB (delayed surface marker buoy) and reel, or at least a surface marker that can be seen from the boat at a fair distance, as it's been known for divers to be flung a mile off the dive site! Just make sure that you, your buddy and the boat handler are aware of which way the current is going and how fast it's travelling.

However, if you plan your dive at neap tide (which generally occurs after the first and last quarter moon) and low tide, it is possible to dive it with little current running. There are several websites that will give you the times of the tides in advanced. One such website is Easytide.co.uk.

The water temperature on May 22nd 2010 was a balmy 26-28 degrees, with just a few thermo climes patches. This site was the second dive of the day and the dive was made on a neap tide which was also low tide, so unfortunately for drift junkies, there wasn't much current. Visibility wasn't too bad at 7-8m and there were a total of eight large painted spiny lobsters tucked under the coral rocks, some hiding in pairs. This was a slow swim/drift of a dive amongst shoals of banner fish, with a large honey comb moray eel, Arabian angel fish, damselfish, snappers, barracudas, a 1m giant trevally and many other marine species in attendance. There were several different types of coral from purple gorgonian coral, whip coral to a soft brown tube like coral with a white flowery head.

The Musandam never fails to provide changing (sometimes unexpected) conditions and is never boring.

Please ensure that if you dive in the Musandam that you have the necessary confidence levels and self rescue skills in case the water conditions change. Never be too proud to forgo a dive if you feel that it may be beyond your comfort zone/diving experience. That said, the Musandam provides world class diving and is just a few hours from your door step. Get out there and dive!



TANZANIA

NGORONGORO, SERENGETI AND ZANZIBAR

FEATURE AND PHOTOGRAPHY ZEUS AZUSA SHIRAKI



Many years ago, seeing some amazing photos of Africa's wildlife taken by an amateur photographer got me dreaming of one day going there to see the animals in their domain. Finally I had the chance, but it was not so easy planning the trip of 8 days. There's simply too much to see! With the help from a tour organizer in Tanzania, we finally had the plan. This is what we did.

DAY 1: Fly from Dubai to Dar Es Salaam then from Dar Es Salaam to Kilimanjaro. Then drive to Arusha (flight to Arusha was full). Stay in Arusha overnight (Ibori Safari Lodge).

DAY 2: Early morning pick-up from hotel, drive to Ngorongoro after a very quick drive through Arusha town. Drive around Ngorongoro Crater National Park. Stay overnight (Ngorongoro Sopa Lodge).

DAY 3: Early morning drive to Serengeti, game drive, overnight in Serengeti (Lobo Wildlife Lodge).

DAY 4: All day game drive, overnight (Serengeti Sopa Lodge).

DAY 5: Early morning game drive, then off to Serengeti air strip for flight to Arusha, then to Zanzibar. Overnight (Mnarani Beach Cottages).

DAY 6: 2 dives at Mnemba Island.

DAY 7: 1 dive on North Coast.

DAY 8: Fly to Dar Es Salaam, quick tour of the city, then fly back to Dubai.

Tanzania is a republic, a little more than twice the size of California at 945,087 Km². Official language is Swahili, 30% are Christian, 35% are Muslim, and 35% have indigenous beliefs. It is in East Africa, bordering the Indian Ocean between Kenya and Mozambique.

We flew Emirates from Dubai to Dar Es Salaam and connected at Kilimanjaro Airport. Important note here, when connecting to domestic flights, you have to go out first, and check-in again. Upon going through security, they take ALL lighters! Never mind the cheap one Dirham ones, but I lost my wind-proof lighter there. Tanzania is not very smoker friendly, which is a good thing considering the high risk of fire in the park's area. Money Change – after much debate, we changed US\$200 into Tanzanian Shillings (exchange rate was US\$1 = TSH 1,500). An hour and half took us to Kilimanjaro, where we were met and driven to Arusha town, about an hour away. My ears kept popping on the drive as Arusha, a city of about 400,000 people, sits at 1,135 meters above sea level. That's about as high as the top peak of Jebel Hafeet. Upon arriving Arusha, we were taken straight to our hotel, Ibori Safari Lodge at the outskirts of Arusha town. Biggest surprise for me was the weather – it was quite chilly, perhaps around 20°C. Then I was told that it will be cold in Ngorongoro, and should wear warm clothing for the safari ride. Good advice, though I wish they had told me this before leaving home. I was already missing my winter coat, being a real chicken when it comes to cold.

Next morning around 8:30am, we were picked up by our guide and driver, Julien. He is

from the Meru Tribe from Mount Meru which is next to Arusha. Back in the mountains, after a quick tour of Arusha town, we headed up to higher grounds passing plenty of coffee farms along the way. Most have been rented to the "white people" according to Julien. We also pass impressively tall termite mounds. They look more like small hills and are as solid as cement. The highest one we spotted was 2m high! We did not see any termites anywhere. Queen termites lay about 1,000 eggs per hour for up to 20 years. What a job.

We arrived at Ngorongoro National Park gate around 11am. This is the area where the earliest human-like remains were found along with foot prints giving indisputable facts that mammals with arches on the feet (apparently humans are the only mammals with this) walked here over 3 million years ago.

The park permit is good for 24 hours only, so not a good idea to arrive too early as our hotel is within the park. As we entered the park, we said good-bye to paved roads. We didn't realize we wouldn't see it again until we were back in Arusha. The track is brick-red earth, concaved to allow rain water to run down the sides. Cars can dangerously be tipped sideways whenever there's oncoming traffic as tracks are barely wide enough for cars to pass. I understood then, why the first word we were taught in Swahili was "pole pole". It means to go slow.

Around 1pm, we finally arrived at the crater area. The roof of the jeep opens upward, extending about a meter for a good view outside. At the gate, while Julien went to pay more park fees, we were met by Masaai



people – selling trinkets and asking for money to take photos with them. Traditionally they were proud warriors, a nomadic tribe that survived on milk, blood and meat from their animals. Now they charge U\$50 for tourists to go and visit their huts. However they are the only people allowed to roam the park area on their own, and their animals are allowed to graze the crater area for a few hours a day. It's only fair as their land has been taken over by parks and they are no longer allowed to hunt as Ngorongoro area was declared a World Heritage site.

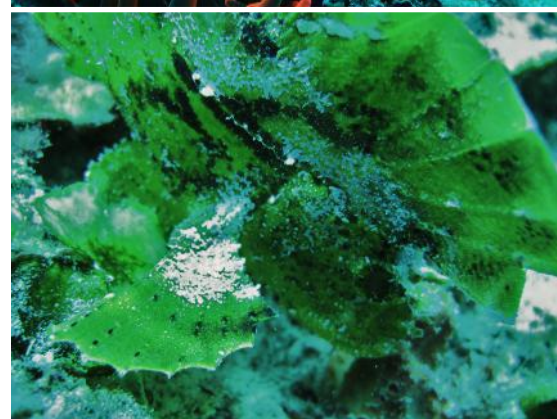
After a quick lunch, we began our game drive. Zebras and wildebeests were scattered everywhere as the Great Migration had begun. We spotted two male lions sleeping very close to the track without a care in the world. They seemed so benign and cuddly, we just wanted to go pat them. Luckily we weren't that stupid – but temptations remained every time we saw lions. We came upon watering holes where we saw more zebras and wildebeests, and wild hogs fighting. Wildebeests are very protective of their young, it was hard to get any photos of the little ones. On the way to our next hotel, Ngorongoro Sapa Lodge, we finally spotted a black rhino with a baby, but it was really far away. There was a tree full of baboons, too.

Sapa Lodge offered amazing views of the crater. Actually, it's not technically a crater but a caldera, which is a cauldron-like volcanic feature usually formed by the collapse of land following a volcanic eruption. Ngorongoro Caldera was formed over 3 million years ago, at 2,286 meters above sea level, 265 square kilometers, and up to 600 meters deep, making it the biggest intact caldera in the world. The peak around the crater is 3,578 meters above sea level. It boasts of 20,000 to 30,000 wild animals, the most densely

packed concentration of wildlife in Africa. Unfortunately the sunset was cancelled at the last minute, thanks to the heavy clouds hovering over the mountains, but the chill got thicker as the sun disappeared somewhere beyond the clouds. Hot water was available 5am to 8am and 5pm to 8pm only. Rooms were huge, with an amazing view from a glass balcony with rocking chairs. There are heaters in the rooms, and upon turning our beds, a hot water bottle was placed under the covers. As I said, it was cold! A security guard told us that an elephant came by the day before and destroyed the hot water heater in one of the other rooms, but in his opinion, we are the intruders. Hotels here offer full board, and at Sopa Lodge we had a 4 course dinner with entertainment. And the food is really good.

Next morning around 8am, after a fabulous breakfast with a view of a beautiful rainbow (first I'd seen in many, many years) we drove straight off the mountain to Serengeti, stopping at Olduvai museum at around 9:30am. Olduvai Gorge (Olduvai was incorrectly pronounced and spelt by early paleoanthropologists working in the area. In 2005, the Tanzanian authorities officially renamed the Gorge Oldupai. Oldupai is the Maasai word for the wild sisal plant *Sansevieria ehrenbergii*, which grows in the Gorge).

Lois and Mary Leakey brought Olduvai (now Oldupai) Gorge to the world's attention with their early hominid discoveries during the 1930's. Oldupai Gorge, located in the Ngorongoro Conservation area in northern Tanzania, is 30 miles long and 295 feet deep. It's got nothing on the Grand Canyon, but this gorge holds a treasure chest of fossils spanning over 5 million years old. Major fossil findings include *Australopithecus Zinjanthropus* (Boisei), *Australopithecus Afarensis* (like Lucy), and *Homo Habilis* (tool guy/handyman). The



"Laetoli footprints" were perfectly preserved in a rock bed 30 miles from Oldupai. They distinctly show two upright bi-pedal hominids, out for a stroll more than 3.5 million years ago.

The "Cradle of Mankind" is not that impressive to look at, and the museum founded in 1970 by Mary Leakey is a modest affair. But it all comes to life with a little narration from the soft spoken local guides who are trained archaeologists. You can clearly see how the rock strata has formed over the past 5 million years and why this site is so special. For an extra fee, you can clamber down and take a closer look. Two camps on the rim of the gorge are still in use by researchers from American and Spanish universities. Paleoanthropologists still spend several months a year excavating with the help of local Maasai.

Dr Yoshiharu Sekino, a physician, adventurer and a professor of cultural anthropology, decided to do the human's Great Journey from East Africa to South America in reverse, using his arms and legs as propulsion. Starting by kayaking from South America, he traveled mostly by foot and bicycled over 2,990 days covering 53,000km and 35 countries, completing his journey in 2002. His bicycle sits at the museum along with his sneakers.

As for us, we continued on to Serengeti in our 4x4 jeeps arriving at the main gate at 11am. The track got rougher and rougher as we went along with Julien still driving at the same speed (speedometer was broken so I have no idea how fast we were going). We passed quite a lot of big trucks transporting goods going both ways.

Serengeti Plains is a plain – very flat. Great rocks with trees surrounding them pop up here and there, and lions can be spotted sleeping on top of them. Around 2pm, we headed over to the picnic area next to the conservation center where you can find a lot of information on the Great Migration. Both wildebeests and zebras cross thousands of kilometers each year in search of better food, risking attacks from predators and finding comfort in numbers.

We arrived at our next hotel, Lobo Wildlife Lodge around 4:30pm. Wind picked up slowly, making it very difficult to sit and enjoy the great view of Serengeti from the pool deck. The lodge is built into rocks and trees, with some beams bolted directly into the rocks. Baboons roam the area, and guests are asked not to feed any wild animals. Power comes on between 5am to 8am, and 5:30pm to midnight – so we couldn't get a cup of coffee for a while. Quite a few mosquitoes around, coming inside the hotel to avoid the strong winds for sure. We finished the day with a buffet dinner and early to bed.

Next morning at 7am, we walked through a wet fog to the main building for breakfast. We

weren't too impressed with their food, but were on the game drive at 8am. We saw some birds called bustards. While fish names are not very inventive, I'd like to know who names birds. There were boobies and bustards – not very kind names, are they?

We saw the usual animals, zebras, wildebeests, elephants, giraffes, wild hogs, etc. At lunch time we got to the hippo pool with about 50 hippos lazing in the stagnant waters. It smelt quite awful. Being a picnic area, I wondered off on my own to find the guide frantically looking for me. Apparently, it is not a very safe place to wonder off being so close to the waters with crocodiles and hippos being some of the most aggressive animals around. I was told that hippos account for most of the human deaths in Africa.

Moving on, we started passing a lot of other 4x4 safari jeeps everywhere. As drivers exchanged information (also using short wave radio), we came upon a sausage tree with a big pride of lions resting soundlessly – surrounded by no less than 20 jeeps. We counted 17 lions in total, with 3 and 5 month old cubs with few lionesses, and one male lion – presumably the boss.

We got information about a leopard spotted nearby, and everyone took off. We did spot leopards asleep in a tree, but they were a bit too far away. We drove around to the track on the other side and our plan was to head back to the lions when another driver told us that the leopards have come down from the tree. So a quick u-turn and amongst 20 other cars we spotted the leopards walking in thick grass. We had now covered all the Big 5's – lion, buffalo, rhino, elephant, and leopard.

Further down, we found three cheetahs eating their kill (impala). At least one was on the lookout for hyenas. With hyenas being

stronger, cheetahs will not fight them and will lose their kill. For this reason, cheetahs start eating the back of their kill, because as soon as the gut is open, the smell attracts hyenas. Up high, vultures await patiently. All day we were attacked by flies, and tsetse flies. They have a nasty sting which can penetrate jeans. Being blood suckers, they can cause sleeping sickness in people, though you'd have to be stung by them repeatedly for about a month (at least that is what we were told). They are responsible for about 250,000 to 300,000 human deaths per year though.

We arrived at Sapa Lodge Serengeti around 5pm. Hot water was available between 6am to 9am, and 6pm to 9pm. You have to time it right as unheated water is really cold. Again, the hotel is full board and this place offered afternoon tea with nice cakes.

There is a hot air balloon tour available in Serengeti, picking guests up at the hotel at 5:30am and returning at 8:30am after a Champagne breakfast, all for US\$500 per person. Only. Seriously.

We had breakfast at 7am to be ready by 8am for our morning game drive before heading over to the Serengeti Air Strip for our flight to Zanzibar. There were zebras everywhere. I mean, literally, everywhere. We saw vultures flying about, and spotted hyenas eating their kill. Did you know that a collective noun for hyenas is a cackle or clan? Hippos are a bloat, elephants are a herd or a memory, vultures are a venue, cheetahs are a coalition (on a funny note, cockroaches an invasion). We passed a bloat of hippos with red beak herons and Egyptian geese nearby. More wild hogs along the way, quite a few with little babies (if pigs have piglets, do hogs have hoglets?) Little ones seem to scare very easily, taking off in whatever direction with their mom chasing them at a slightly more slower pace.





We saw trees that had been ripped apart everywhere in Serengeti. Elephants are the only ones strong enough to do such damage, and true enough, we saw them busy tearing a tree apart. They also scratch the barks off with their horns which they apparently eat when they are sick.

The air strip is very small and is made up of two small huts. One sells drinks and the other is the toilets. Toilets are not the cleanest and a lot of the public toilets in the park don't have doors that close or enough water to flush; however, they are far cleaner than some toilets I've seen in China.

Our plane to Arusha was a 12 passenger propeller plane. It was a full flight and as soon as all the passengers were ready, it could take off for the one hour flight. Unfortunately a few guests were late so we took off a few minutes after the estimated time. The friendly pilot stuck his head in to face us and made the announcement, "Welcome to Regional Air, an hour's flight to Arusha. Those going on to other destinations will transfer there. If thirsty, the cooler is in the back. Please pass some sweets around if you don't mind. Enjoy the flight". First time I've heard the announcement while looking at the pilot's face.

We arrived at Arusha at 12 noon and had an hour till our connecting flight. An hour and half flight later, we arrived in Zanzibar by our female pilot with no co-pilot. After the landing, she received a grin and thumbs up from the female passengers. Nice thing about these propeller planes are that they fly rather low, giving us great photo opportunities. There are lots of little islands and shallow reefs all around Zanzibar, with all shades of green and blue surrounding them.

Upon arriving at Zanzibar at 3pm, we had to write down our names and details on a piece of paper to pass around to other passengers, grab our luggage (15kg maximum per person), found our driver to take us to

Nungwi Beach on the northern tip of Zanzibar which is an hours drive away. We were given information packs to read during the drive, with warnings regarding respecting their Muslim culture. 99% of locals are Muslims on Zanzibar with very strong Omani influence.

Zanzibar is a poor island, though a few nice houses can be seen near the town. Houses are put together using either block cement or mud with tin roofs. There are a lot of wild banana, mango and jack fruit trees growing everywhere. Hotels are quite expensive making us wonder where all the money goes. Paved streets disappear into mud tracks upon arriving at Nungwi and we then arrived at Mnarani Cottages. They are mostly basic bungalows, but we had a great view of the ocean with lots of hammocks. The room had a ceiling fan which screeched all not long, no a/c, and plenty of very hungry mosquitoes (and of course they were inside the net).

We had a nice stroll on the beach and saw a warning sign asking guests not to enter the water when the tide is coming in or going out as it can be very strong. It was low tide, and we could barely see the edge of water about 800m away.

We were up the next morning at 7:30am for breakfast and then picked up for our diving day. We were taken to Ras Nungwi Resort, a very beautiful hotel about a 5 minute drive down the beach. After paperwork and getting equipment (can't remember the last time I rented equipment, but with 15kg maximum weight, I couldn't afford to take it all with me). Around 10:45am, we got on the dhow – approximately 40 feet long with sun deck on top. The boat was pretty deep as it had no cargo hold area and had two outboard engines (75cc and 50cc). The boat was so narrow, it was hard to get around with 20 people on board. Tanks were 12 liter steel tanks with few aluminum tanks, so no weights for me. It took an hour and a half to get to Mnemba Atoll, during which

time the crew kitted up all the equipment for the 6 divers. As there were a mixture of levels of divers and one guide, we were all told to tag along, though we could go deeper if we wanted.

Our first dive site was Kichwani. We were told that it's a wall dive, but it's actually more of a slope, 5m at top, 40m at bottom after which it's just sandy. We hit 38m maximum depth and slowly came up shallower. Water was 27°C, visibility 30-40m and very blue. I saw shadows from passing dolphins, but my buddy saw them pass by in front of him. We saw baby blue spotted stingrays, 1.5m blue fin tuna, octopus trying to hide under a rock, schooling fusiliers, snappers and anthias, different types of lionfish, lots of trumpetfish, pipefish, boxfish, fire dart goby, 2 white morays, garden eels, and huge tiger cowrie. After 30 minutes, the dive guide had to surface with beginner divers, so he handed over the SMB to us to continue the dive, which was very nice of him as I still had 150 Bar left. After about an hour, I was freezing. We went up on the boat, had a quick lunch, and sat in the sun to warm up. An hour surface interval later, time for 2nd dive. We dropped off very close to Kichwani, but headed in the other direction, toward another site called Watta Bommi. Same slope, but top was around 10m depth. We stayed shallow on this dive, heading straight into a mild current. Eventually the current disappeared and we saw crocodile fish, maybe 70 to 80cm long. Biggest I've seen so far. There was another octopus, more schooling fish, had fun chasing around a huge ball of red snappers, swam around a big titan triggerfish, more lionfish, and a good sized marbled stingray came straight at me. After passing underneath, it headed to another diver before disappearing off into the deep while I got a nice photo. There was more baby blue spotted stingrays and a huge honeycomb moray – as big as those seen in Musandam. We were once again handed over the SMB to continue our dive, and after 60 minutes we surfaced right next to the boat, though at a maximum of 18 meters, I still had 130 Bar left.

We returned to the dive center around 4:15pm, showered, changed, and took a nice stroll on the beach back to our hotel. Nice hot shower, relaxed on the hammock, and peppermint tea made my day along with the two fabulous dives.

We got up at 9am the next morning, longest lie-in we had since our travel began. We were told to come later because the high tide was around 11am and they wanted to hit slack high tide. After another great breakfast (they make really good pancakes which is more like crepes), we walked to the dive center. Our 3rd dive was at Mewangawa, only 15 minutes by slow dhow at the edge of Zanzibar Atoll. Still a gentle slope with a maximum of 18 meter depth, visibility was around 20-30 meters. We saw 2 yellow leaf fish, baby great barracuda (only about 50cm long) which swam right to me, stopped and posed for some great photos. Quite a few mantis shrimps but they were too quick for a good photo. Light violet colored soft corals grew everywhere, and we saw 3 hawksbill turtles (though it could have been 2, with one returning to us later), egg and tiger cowries, lots of schooling fish, giant moray, porcupinefish, 4 painted lobsters, flounders, lots of lionfish, scorpionfish, giant clam and a huge area covered with cabbage corals. At the end of the dive, we saw a fish trap full of fish, and a fire red anemone with tomatoe clownfish. The guide explained that this is the only one he's ever seen around Zanzibar and not many people know about it. It sat at around 14 meters depth, and we could still see the red color. I didn't use flash for the photo and it still came out red.

A 65 minute dive, 150 Bar left and shivering – but a great dive. I really missed my 5mm wetsuit though. Back at the dive center around 1pm, tide was high and there was no beach to walk on. The driver took us back to the hotel to sun the rest of the day. It was very windy but sunny, and no more mosquitoes. Unfortunately, being on the northern shore, we couldn't see the sunset from our hotel, so we decided to take a long walk to the west side and to see Nungwi village. We walked along the beach, passing plenty of hotels and a village. Nungwi is a village famous for boat building. A 12 meter fishing boat takes about 4 to 6 months to complete, killing goats inside the hull between different stages of

building as an offering to the God. Apparently, when building smaller boats, they sacrifice chickens instead. There is a working lighthouse next to our hotel (Mnarani in Swahili means "at the lighthouse"), built in 1888. It flashes for 0.5 seconds and stays dark for 4.5 seconds and can be seen 13 to 16 nautical miles away, though we never actually saw it flash. There's also an aquarium next to the lighthouse where they are trying to protect the local turtle population.

We walked through Nungwi village and as it was Thursday evening during Eid, all the children were dressed very nicely; girls in long dresses, boys in nice shirts and pants. There seem to be a lot of children around, and all the houses were made of cement blocks without plaster or paint. We bought some drinks at the local supermarket and made our way back to the hotel slowly, passing a few souvenir shops along the way.

The hotel offers a few activities such as kayaking, catamaran sailing, snorkeling, massages and sunset cruises as well as organized tours in Zanzibar (famous spice farm and stone town for a whopping U\$150 per person). A snorkeling half day trip was sold at U\$25 per person with equipment.

On our last day we had a slow start, had more crepes for breakfast and took a walk along the beach again. Our pick-up came at 10:30am to take us to the airport for our 1pm flight to Dar Es Salaam. Apparently it was another one of those flights that took off as soon as all passengers were ready, I had to swallow a cup full of hot coffee as they were ready to take off – but wait, things are never that simple. We were escorted to the smallest plane I've ever sat in. 4 passengers in the back with one passenger riding shotgun. As the pilot sat down, the window latch broke, so we had to send someone to find a mechanic to fix it. We had a nice chat with our Spanish pilot while we waited. After the latch was fixed, he gave us a similar announcement to that of our last pilot and we were off to Dar Es Salaam, only 25 minutes away.

In Dar Es Salaam, we had a 5 hour wait. We were told to give as much time as possible between connecting domestic to international flights as many flights are delayed and luggage is often lost. As we were on time, we negotiated with one cab driver to take us on a quick tour of the city.

We did a little over an hour drive around the port area of Dar Es Salaam – traffic was not very pretty, caused mainly by traffic police guiding traffic into chaos. There are few train stations with long distance trains to other parts of Africa, extending as far as South Africa. There's also a huge ferry port taking people to the other side of the bay which didn't seem very far. Ferries also go to Zanzibar, with slow ferries taking 2 to 4 hours, fast speedboats taking less than an hour.

Back at the airport, as we had checked in earlier, we went straight through. The waiting room is a joke, with not enough standing space. Our flight was delayed by over an hour, so it was a very over-crowded affair. A 5 and half hour flight and we were back in Dubai.



MAGIC IN THE MALDIVES

FEATURE **KATHLEEN RUSSELL, AL MAHARA DIVING CENTER LLC** PHOTOGRAPHY **JOHN HAGER**



As Jacques Cousteau once said, "The Sea, once it casts its spell, holds one in its net of wonder forever."

Divers are always in search of that magical place where we can descend down into the pristine blue waters and encounter breathtaking views or experience an adrenalin fuelled dive with pelagic marine life and schooling fish. It seems like the dives are always too short of time or the air supply is not enough to stay in this magical wonder we call our aquatic realm.

A recent trip organised by Al Mahara Diving Center over the Eid holidays had a group of divers from the UAE fly to the Republic of Maldives, consisting of many small island atolls in the Indian Ocean. An eight day trip was not enough to experience all the beautiful marine life of this Indo island nation. We cruised on the Royal Island Safari 2, a 34 meter custom built safari diving vessel and travelled through the turquoise waters of the Maldivian atolls from North Male to cross the channel to North and South Ari Atoll and then back to North Male whilst experiencing the friendly hospitality of the crew in Maldivian style.

With our experienced dive guide, Niyan, a native Maldivian who has been diving these waters since he was a young man; we started a warm up dive to a well known site called Lankan Reef in North Male. A great introduction dive when the current is incoming because it was an opportunity to watch the majestic mantas swimming towards the coral bommies at 24 meters to the cleaning stations in 30 meter visibility. During the next day, we made the 3-hour channel crossing to the southern tip of South Ari Atoll so we could be close to popular tourist resorts, Sun and Paradise Island. In front of the reef, divers and

non divers alike encountered several whale sharks feeding in the plankton rich waters. The whale sharks slowly cruised through the shallow water while snorkelers stayed nearby to observe and take photos for over an hour. We continued along the atoll to reach some nearby thila (define). Here we were enthralled by a multitude of colours on the healthy coral reefs. Shoals of striped snappers, fusiliers, barracuda, titan, red-toothed and clown triggerfish and an abundance of other colourful reef fish swam along the walls between 5 meters and 25 meters. The gorgonian sea fans were established along the gentle sandy slopes between 20 and 30 meters depth range. Occasionally huge Napoleon wrasse, giant moray eels and "not-so-shy" green and hawksbill turtles would give divers a photographic moment as they travelled by the reef. Some of the wall dives had overhangs. The wave action had caused some erosion to make these wonderful overhangs where we encountered resting turtles, white tip reef sharks and huge marbled feather-tailed sting rays. These overhangs also were home to many soft corals growing from the ceiling while schools of soldier fish would guard the entrance.

If divers didn't get enough of an adrenalin rush from the drama and diversity on the reef, then the divers would quickly gain respect and appreciation for the grey reef sharks and giant trevallies cruising the reefs. An early 5am wakeup call, Niyan took us for a blue water 30 meter dive on Rashdhoo Atoll in hopes to find the elusive hammerhead shark. A few lucky divers briefly

spotted a 2 meter hammerhead shark swimming below us at about 45 meters on this dive. We were told 2 days previously, 20 hammerhead sharks were spotted in the same area.

What is most incredible after a great dive is reaching the 5 meter depth and making a safety stop along the reef crest. If time permitted, we would find an excuse to "extend" the safety stop to enjoy the plethora of stunning and over-sized table corals covering the entire shallow area. The pristine water and the sun light penetrating down created an exquisite garden of Eden for divers.

In true Maldivian hospitality, the Island Safari 2 crew brought us to a tiny uninhabited island in North Ari Atoll and built a sand-sculpted whale shark dinner table for the guests and served up a sumptuous BBQ evening meal under a blanket of stars. It was the perfect end to another day in paradise.

It's no wonder many divers keep returning to this remarkable underwater garden of Eden. Divers took with them some incredible and memorable experiences and on behalf of Al Mahara Diving Center, we thanked those who captured the magic in the Maldives through their camera lens. Before we bid our farewells, fate tempted me to book our next journey back to the Maldives, this time to Baa Atoll at the end of August 2011.

For more information on the trips to Maldives or bookings, please contact us at: info@divemahara.com



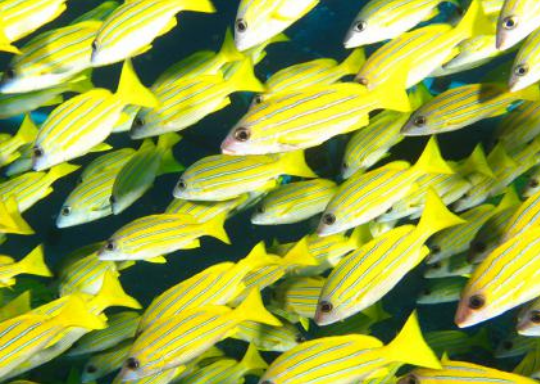


Photo by Peter Mainka



Photo by Peter Mainka



Photo by Peter Mainka

WOMEN AND SCUBA DIVING

FEATURE **BARBARA KARIN VELA, MD**

“The only difference between men and women divers is that during pregnancy women should not dive – everything else is trivia and misinformation.”

Lt Col R Kelly Hill, MD

From its beginnings, diving has been considered as a men's sport, mostly because it was part of the armed forces. The first female divers had a very challenging task in getting all the equipment to fit to be able to enroll in diving activities. It was difficult to find a well fitting mask, female divers had a lot of leaking at the side of the mask; SCUBA cylinders and buoyancy compensators were generally too large which would give excessive drag; fins were too large so they were either easily lost or hard to swim with; ill fitting wet suits would give female divers thermal discomfort. On the other hand, there is a long history of female divers, starting from the Ama divers of Korea and Japan. Today, the Amas are female breath hold divers, famous for their pearl diving. Initially, there were both male and female breath-hold divers in Asia, which changed in favor of the females only four to five hundred years ago. It is believed that female divers prevailed because they were able to better adapt to the cold. On the other hand diving is also believed to be negatively affecting male virility. Ama divers are also mentioned in popular literature e.g. James Bond becomes involved with the Ama diver Kissy Suzuki in the film based on Ian Fleming's novel, *You Only Live Twice*.

In the 1940s Simone Cousteau, the wife of the famous underwater researcher Jacques Cousteau, joined her husband in using SCUBA apparatus called Aqualung and Lottie Haas provided her expertise in diving and underwater photography. Valerie Taylor and Eugenie Clark, known as the “shark lady”, were scientific divers in the 1960s, and in 1973 Kati Garner was the first woman to graduate from the US Navy Diving School. Women account for some 35% of all recreational diving certifications issued, and perhaps the most important contribution of women to diving is in the instructional area.

Nevertheless, there are a few important differences between male and female divers: body dimensions and muscular force, mental factors, subcutaneous fat and body composition, hormones/menstruation and pregnancy.

Women have higher percentages of body fat, and men have more muscle mass (40 percent) compared to comparatively fit women (23 percent), which means that women can find it more difficult to swim against the current and get tired more easily than their male buddies. Women are smaller, and have smaller lungs therefore they utilize less air while diving so their air cylinders last longer than those belonging to their male buddies. Women are more sensitive to cold water than men due to an increased thermal heat loss, because they have larger surface and smaller body volume. More fat tissue than muscles, which by nature generate heat just by being active, means that women will feel cold sooner than men.

When it comes to menstruation, there is one simple rule: if there are no problems on land, there are no problems in water. The average blood loss during 3-5 days of menstruation is 50-150 ml, which is not a significant amount of blood lost. A lot of women are afraid that they will attract sharks while menstruating; however, there is no support for that belief. In fact, female divers experience much less shark attacks than male divers. It is believed that the menstruation blood, which consists of ruptured red blood cells and cellular debris serve actually to deter sharks, not the opposite.

Some women have reported an increased number of migraines in the menstrual cycle, so, if a diver suffers from migraines, it is advisable either to avoid diving or to avoid the known triggers for the migraine attacks (certain foods, cold, and tension/anxiety). If the migraine attack happens under water, with its typically associated symptoms (nausea,

vomiting, vertigo, numbness, etc) it can be easily confused with cerebral decompression sickness or air embolism. Women reported most problems during diving in the week just before the period in the study conducted by Marguerite St. Leger Dowse, another famous female diver and researcher.

A possible fluid retention and the swelling of mucosal membranes, happening due to the hormonal changes in the premenstrual period, can make it more difficult to equalize ears and make female divers more susceptible to sinus and ear barotraumas in the week before a period. Some women experience severe premenstrual tensions, with psychological and physiological symptoms like anxiety, tension, irritability, mood swings, fatigue and muscle cramps and they should refrain from diving during that time because this can be dangerous for themselves and the buddy.

During pregnancy, women should not dive, because there are risks for both, the pregnant woman and the fetus. A lot of women experience morning sickness during pregnancy, which can be a significant problem for diving. Due to the pressure of the abdomen organs on the lungs, the reduced lung capacity and impaired peripheral circulation result in the reduced level of fitness, this together with the ill fitting equipment and fluid retention can increase a risk of DCI and the swelling of mucosal membranes (leading to problems with equalization of the pressure in the ears). During diving, it is the fetus, not the mother who would be exposed to more potential risks like increased nitrogen and oxygen pressures which can disturb their growth and development by causing malformations, whereas “bubbles” from maternal blood can block the fetal circulation and cause the death of some tissue or of the whole fetus.

Following the delivery, it is recommended that women do not dive until 6 weeks post partum to avoid intrauterine infections; however, there are no contraindications to diving while breastfeeding.

Last but not least, there are female divers with breast implants. Dr. Richard Vann conducted a study where breast implants were placed in the hyperbaric chamber and tested in order to see if the bubble formation in the implants would cause any changes in the size of the implant, and induce the damage of the tissue. It was found that even if bubbles were formed in the three types of the tested implants (saline, silicone and combined) due to the changes in pressure, they could resolve over time and would not cause any damage to the surrounding tissue or implant. Having breast implants is not a contraindication for a recreational SCUBA diver; nevertheless a diver should be aware of the possible buoyancy problems and should have appropriate training including the appropriate weight adjustment.

Dr. Karin Vela is a Diving Medicine physician EDTC/ECHM IIa and works in Dubai London Specialty Hospital.



Photo by George Cathcart/Marine Photobank

UPCOMING EVENTS

EDA MARKET DAY

February 2011, Diving Village, Shindagha Area, Bur Dubai (Dates TBC)

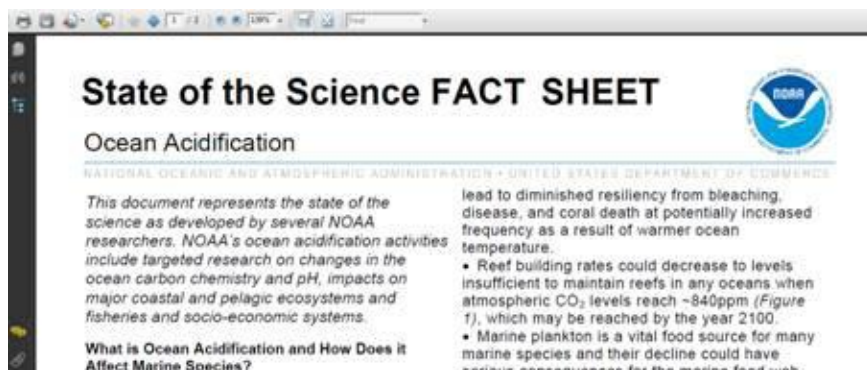
DMEX 2011 (DIVE MIDDLE EAST EXHIBITION)

1-5 March held at Dubai International Boat Show, Mina Seyahi

OCEAN ACIDIFICATION

INTERESTING LINKS AND RESOURCES

- http://www.nrc.noaa.gov/plans_docs/2008/Ocean_AcidificationFINAL.pdf



- <http://www.pmel.noaa.gov/co2/OA/background.html>



What is Ocean Acidification?



- <http://seagrant.oregonstate.edu/video/flash/acidification-3.html>
- <http://seagrant.oregonstate.edu/video/flash/acidification-2.html>



COVER PHOTO: BY ALLY LANDES

IN POSITION TO CLEAN UP ARABIA

Photograph taken using Nikon D70s (ISO 200 – f/13 @ 1/500s) PS edit.



Chairperson Faraj Butti Al Muhairbi

Vice Chairperson Essa Al Ghurair

The Secretary General Jamal Bu Hannad

Financial Director Khalfan Khalfan Al Mohiari

Head of the Technical Committee Omar Al Huraiz

Head of the Scientific Committee Mohd Al Salfa

Technical Advisor Ahmed bin Byat

EXECUTIVE TEAM

EDA Executive Director

Ibrahim Al Zu'bi
Email: diving@emiratesdiving.com

EDA Events Coordinator

Ally Landes
Email: magazine@emiratesdiving.com

EDA Marine Biologist

Rita Bento
Email: research@emiratesdiving.com

EDA Projects Manager

Reema Al Abbas
Email: diving@emiratesdiving.com

EDA Secretary

Racquel Valerio
Email: projects@emiratesdiving.com

EDA Photo Coordinator

Marcelo Mariozi
Email: photo@emiratesdiving.com

Heritage Department Manager

Mr Juma'a Bin Thaleth

MISSION STATEMENT

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

LEGISLATION

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

- To Legislate and regulate all diving activities in the UAE.
- Ensure environmentally respectful diving practices in all EDA members.
- Promote and support the diving industry within the UAE by coordinating the efforts of the diving community.
- Promote diving safety in the commercial and recreational diving fields through 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.

CONTACT DETAILS

Emirates Diving Association
Heritage & Diving Village
Shindagha Area
P.O. Box 33220
Dubai, UAE

Tel: +971 4 393 9390

Fax: +971 4 393 9391

Email: diving@emiratesdiving.com, projects@emiratesdiving.com

Website: www.emiratesdiving.com

While every effort and care has been made to ensure the accuracy of the information contained in this publication, the publisher cannot accept any responsibility for errors or omissions it may contain.

No part of this publication may be reproduced in any form or by any means without the prior written permission of the publisher.

Copyright © Emirates Diving Association 2010

5th Dive Middle East Exhibition 2011

Held at Dubai International Boat Show
Dubai International Marine Club, Mina Seyahi

1 - 5 March



Key DMEX highlights include:

- Interactive demonstrations by qualified instructors within the DMEX dive pool
- Live & interactive presentations by industry professionals
- Explore and book your next diving holiday destination within the new "Marine Tourism Hub"
- Experience the latest industry news on diving equipment, technical diving specialties including the diving history of the UAE
- Discover scuba diving, gain the latest knowledge and up-to-date diving techniques and skills required to explore diving

www.boatshowdubai.com/DMEX www.emiratesdiving.com

IN CONJUNCTION WITH



ORGANISED BY



IN ASSOCIATION WITH



VENUE



A MEMBER OF



ASSOCIATED EVENT

