



Terumbu

Department of Marine Park Malaysia

www.dmpm.nre.gov.my

Volume. 2

Marine Park Malaysia

The Department that
BUILD the **FUTURE**
for **MARINE**
BIODIVERSITY

ISSN No. 2180-4435



Contents



SPONGES/PORIFERA

Fondly called the vacuum cleaners of the sea, sponges function as efficient filter feeders. Water that is drawn in is filtered by a series of sieves of shrinking mesh size. They can filter microscopic organisms, particularly bacteria which is a major source of nutrition for them. Existing approximately 600 - 700 million years ago, they are the oldest living group of multicellular organisms and they are also compliments to this unique marine ecosystem.

3

■ FOREWORD

4

■ OFFICIAL WEBSITE :

www.dmpm.nre.gov.my

6

■ MARINE PARK PLANNING AND MANAGEMENT DIVISION

- Marine Parks of Malaysia
- Department of Marine Park Malaysia (DMPM) Consultative Committee
- Conservation Fee
- The Green Fins Programme

8

■ DMPM KEDAH Office

■ DMPM TERENGGANU Office

■ DMPM PAHANG Office

■ DMPM JOHOR Office

■ DMPM LABUAN Office

13

■ ENFORCEMENT AND LICENSING DIVISION

- Reef Watchers Orientation Course
- Case Arrested in Marine Park for 2009

15

■ MANAGEMENT SERVICES DIVISION

- Welcome Staff 2009
- NRE Biennial Sports Day 2009
- Colors of Marine Park

17

■ ENGINEERING DIVISION

- Y.Bhg. Dato' Zool Azha bin Yusof's Work Visit to All Weather Boat Project.

18

■ RESEARCH AND RESOURCE INVENTORY DIVISION

- Coral Mapping in Perhentian Kecil Island Marine Parks, Terengganu
- Coral Restoration Programme In Tioman Island, Marine Park Centre, Pahang
- Study of The Crown of Thorns (COT's): It's Potential in Therapeutic and Neutraceutical
- National Conference of Marine Biodiversity 2009

20

■ EDUCATION AND INFORMATION INTERPRETATION DIVISION

- The Coffee Table Book Launching Ceremony
- The Marine Park Experience@Aquaria KLCC Programme
- Awareness Programme

22 -
23

■ DMPM / UNDP Project

- Appointment of Consultants
- Socialisation Workshop
- Marine Park Policy Workshop
- RTM X-Plorasi Shooting
- Rainforest to Reef

■ FEATURE SPECIES



FOREWORD



Malaysia is fortunate to be one of 12 mega diverse countries in the world. It is a testament of our country's richness in biodiversity. However, not many are fully aware of the honour and responsibility attached in being a mega diverse country. This lack of awareness will lead to a continual wide scale depletion of our natural resources and eventual collapse of the entire ecosystems. For example, our coral reefs which are home to a multitude of marine life are in danger of extinction due to uncontrolled development, pollution, overfishing and such.

The Department of Marine Park Malaysia (DMPM) was established to protect and manage the abundant biodiversity in the waters surrounding the 42 islands that make up Malaysia's Marine Parks. The DMPM plays an important role in protecting and conserving coral reefs in Marine Protected Areas that have been identified as contributing factors in strengthening the country's socio economic status. The importance of these Marine Protected Areas cannot be emphasized enough- they act as buffer zones to maintain and ensure that the country's fish stocks do not decline to critical levels. They also sustain and encourage other economic activities as ecotourism and research.

It goes without saying that if we respect nature, nature will take care of us. The Department of Marine Park Malaysia is truly honoured to be given the responsibility to guard these marine treasures for the sake of our future generation.

As such, I am proud to present you the *Terumbu Bulletin*. I also hope that these bulletins will serve as platform for all to engage themselves in marine conservation efforts so that the splendour of Malaysia's aquatic treasures can be enjoyed by our future generations.



Hj Abd Jamal Bin Mydin
Director-General
Department of Marine Park Malaysia (DMPM)



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The Official Website for

**DEPARTMENT OF
MARINE PARK MALAYSIA**[Home](#)[Department Profiles](#)[Services](#)[Information](#)[Resource Centre](#)[Marine Park Issue](#)[JTLM-UNDP](#)[Contact Us](#)[FAQ](#)[Sitemap](#)**About MARINE PARK Malaysia**

The Marine Parks in Malaysia are of world class status and has drawn many tourists to the depth of the marine life. Malaysia's first protected marine park, the Terengganu Marine Park, located north of Kuala Terengganu is an archipelago that contains nine islands.



Search

**Marine Park Island****Do's & DON't****Permitted Activities**

- ▶ Scuba Diving
- ▶ Snorkeling
- ▶ Underwater Photography
- ▶ Swimming
- ▶ Sailing or Kayaking
- ▶ Climbing and jungle tracking

Prohibited Activities

- ▶ Fishing or killing fish
- ▶ Usage of spear gun or sling fishing
- ▶ Collecting of sand or rubble
- ▶ Collect or capture any marine resources whether dead or alive
- ▶ Stepping on or breaking off the corals
- ▶ Anchoring on the reefs
- ▶ Polluting and littering
- ▶ Fish Feeding
- ▶ Building any structure in the water

Coral Etiquette**Today's vote**

Your evaluation towards our website?

- ☐ Very Satisfied
- ☐ Satisfied
- ☐ Less Satisfied

[View Result](#)**Marine Park News****Top Dive Spots Closed Due to Coral Bleaching**[More](#)

Numerous islands in marine parks in three states have been closed due to coral bleaching. The Department of Marine Park Malaysia said the closure will take place from 2nd of July until October 31, 2010.

[More](#)**Outreach Programme**[More](#)

The Rainforest to Reef (R2R) Programme was developed by Reef Check Malaysia (RCM) in 2008 after a discussion with DMPM to introduce a sustainable education and awareness programmes for the school children on the Marine Park Islands.

Department of Marine Park Malaysia Towards 5S Implementation[More](#)

On April 14, 2010 Department of Marine Park Malaysia has formed a Steering Committee's for 5s certification from the MPC.

[Read more](#)**Multimedia****Video****Foto**[VIEW ALL](#)**Calendar**Thursday
August 2010

5

MON	TUE	WED	THU	FRI	SAT	SUN
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

**Announcements**

The world's first marine park in Paha...

[More](#)

Program Perasmian Rakan Taman Laut NRE ke Taman Laut Pulau Tioman
Dimaklumkan bahawa Jabatan

**Tender & Quotation**[Quotation Offer Results](#)**Special Project****JTLM**

- Coffee Table Book JTLM

Course & Training**Special link**[SyMBiosIS](#)[Intranet](#)[GreenFins](#)[Webmail](#)**Links**[KEMENTERIAN SUKSES ASLI & ALAM SEKITAR](#)[MAMPU](#)[EKL - KUALA LUMPUR](#)[MyIdeas](#)[2010 INTERNATIONAL YEAR OF BIODIVERSITY](#)[HRMIS](#)[MYGOVERNMENT](#)[Rakyat Didahulukan, Pencapaian Diutamakan](#)[MULTIMEDIA SUPER CORRIDOR](#)[More Links](#)**Contact Us**

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DID You Know?

Do you know what the number one thing you can do is to protect the ocean? Learn! Learn all you can about the threats facing the ocean and marine life. First and foremost, Global warming (Climate Change/Abrupt Climate Change) is the number one threat not only to marine life but to all of our ways of life as well.

Visitor Statistics

Currently Online 15 | Today 466 | This Week 2892 | This Month 2892 | This Year 71919 | Last Year 0 | Total 71919

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Attractive display, please use Explorer's Internet or Mozilla Firefox with resolution size screen 1024x768 pixel.
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Terengganu



Pahang



Kedah



MARINE PARKS OF MALAYSIA

Johor



W.P Labuan



Legend

Ecotourisme Area		
Scuba Dive Sites	83	
Snorkeling Sites	83	
Swimming Sites	33	

Department of Marine Park Malaysia (DMPM) Consultative Committee

The objective of the establishment of DMPM Consultative Committee is to ensure every programme and event planned by the department can be successfully implemented. In addition, the establishment of this committee will allow smooth communication mechanism between DMPM and stakeholders, increase the effectiveness in dealing with threats and issues, and will ensure every programme and activities can be effectively channeled through appropriate medium.

The agencies involved in the Committee are the Fisheries Development Authority of Malaysia, the Malaysian Maritime Enforcement Agency, Ministry of Tourism Malaysia, State Land



and Mines Offices, the Department of Environment, the Department of Irrigation and Drainage, the Department of Fisheries, state governments, resort operators and the National Fishermen's Association. For 2010, the Consultative Committee has conducted 3 meetings in Terengganu, Kedah and Labuan.

CONSERVATION FEE (CF) *Frequently Asked Questions*



WHAT IS IT?

It is a charge imposed on all visitors to the Marine Parks of Malaysia (MPM).

WHY VISITORS ARE CHARGED?

Efforts to conserve the marine environment need a collective responsibility that requires the cooperation of everybody. All cost needed to conserve the environment should be shared by all. You can contribute towards this effort by way of the conservation fee imposed.

IS EVERYBODY REQUIRED TO PAY?

Yes, everytime you visit any MPM. Exemptions only given to fisherfolks, resident islanders, chalet operators, dive operators, as well as their workers and those that have been given special permission by the Director General of Marine Park, Malaysia.

HOW WILL THE CHARGED COLLECTED BE USED?

All charges collected will be credited into the Marine Parks & Marine Reserve Trust Fund. Operations and management costs incurred including research, enforcement educational and awareness program will be made through this fund.

HOW CAN I CONTRIBUTE TO THIS FUND?

You can contribute to this fund by obtaining a CF ticket everytime you visit a Marine Parks.

WHAT BENEFIT DO I GET?

Facilities such as gazebo, toilet, shower available can to make your visit to any MPM more comfortable. More importantly, you get to play a part in helping to conserve our natural heritage.

HOW MUCH IS THE CONSERVATION FEE?

RM 5.00 for adults. Senior citizens (above 56 years) disable person (7-12years) and school children are charged RM 2.00. Children below 6 years are not required to pay.

WHERE ARE THE TICKETS AVAILABLE?

Tickets are available at State Marine Park office, Marine Park Centres, public jetties and also from the Marine Park rangers on patrol.

WHAT PROVE CF HAS BEEN PAID?

A ticket with individual serial numbers will be issued for every payment made. Each ticket has a security code to avoid forgery.

HOW LONG CAN I STAY AT A MARINE PARKS?

Each ticket is valid for a period of three days from the date issued for visits to any Marine Park except for Pulau Payar Marine Parks which is valid for one day or per entry.

CAN I USE THE SAME TICKET FOR ALL THE MARINE PARKS?

Yes, it can be used anywhere except for Pulau Payar Marine Park, with the condition that the ticket is still valid.

CAN I BUY THE TICKETS IN BULK & KEEP IT UNTIL NEXT VISIT?

Yes, the validity period of each ticket will be calculated from the date issued on the ticket.

IF I PAY THE CONSERVATION FEE, CAN I FISH?

No, the fee is only meant for visiting the Marine Parks. Fishing within the Marine Parks is totally prohibited and is an offence under the Fisheries Act 1985. Fishing can only be done outside the Marine Park areas.



THE GREEN FINS PROGRAMME



The "Green Fins" programme was initiated in 2004 by the East Asian Seas Regional Coordinating Unit (EAS/RCU), the secretariat of the Coordinating Body on the Seas of East Asia (COBSEA) – located in Bangkok, Thailand. It aims to encourage dive and resort operators, and inadvertently, clients who use their services to adopt environmental-friendly practices when diving or snorkelling around coral reefs.

The overall objective of the "Green Fins" programme is to establish a network of environmental-friendly dive operators that generates mutual benefits for the operators as well as the environment in coral reef areas and to assist in coral reef monitoring.

The programme is active in the most popular diving-destination countries in the Asian region, namely Malaysia, Thailand, Indonesia and the Philippines. The Department of Marine Park Malaysia (DMPM), Ministry of Natural Resources and Environment (NRE) is responsible for coordinating, expanding and facilitating the development a network of environmental-friendly divers and dive operators in Malaysia and to produce educational, public awareness materials and award the certificates to the members.

The programme was launched in Malaysia in February 2008. Twenty two (22) diving companies from Pahang, Kedah, Federal Territory Kuala Lumpur and Terengganu are currently participating in the programme. Each member has agreed to abide by the 15 Green Fins Code of Conduct.

Evaluation of the programme is done through assessments of the dive operators by guests, the operators, and by DMPM.



Members of Green Fins in Kedah and Pahang



Fun Fact



GREAT WHITE SHARK

The great white shark, *Carcharodon carcharias*, is the largest known predatory fish in the sea. They reach lengths of over 6.1 m long and weigh up to 2,268 kg. They have a conical snout, pitch black eyes, a heavy, torpedo-shaped body, and a crescent-shaped, nearly equal-lobed tail fin that is supported on each side by a keel. The great white swims in a stiff-bodied, tuna-like fashion, unlike the sinuous whole-bodied swimming stroke of most sharks.

Visit Green Fins Website:
<http://www.greenfins-malaysia.dmpm.nre.gov.my>



Pulau Payar-Reef Clean-Up 2010

PAYAR ISLAND is one of the Marine Parks in Kedah. It comprises of 4 islands, which are Payar, Lembu, Kaca and Segantang Island. On the 22nd to 24th March 2010, the Department of Marine Park Kedah had organised a programme called "Pulau Payar Reef Clean-Up 2010". The programme involved 25 divers from the Department of Marine Park Malaysia, volunteers from all over the country and 3 tourism operators, which were the East Marine, the Langkawi Coral and the Coral Island.

The objective of this programme was to clean up the reefs in few strategic locations where there were numerous kinds of nets especially drift nets stuck at the corals. During the cleaning up process, monitoring of Crown of Thorns (COTs) was also conducted. The high population of COTs is feared will negatively affect the population of corals. There has yet been any large-scale attack of COTs at Payar Island. Besides that, the programme also aimed to enhance the good relationship among divers and enhance the public awareness regarding the priceless treasures of the marine, which will not last forever without efforts on the rehabilitation and conservation of the resources.

Reef Clean-Up Pulau Payar 2010 is considered successful due to the amount of trash compiled, consisting of different types of nets, ropes and anchors, weighing at an estimation of 400 kilograms. This success is the result of cooperation among all parties in conserving the nation's marine resources.

In that regards, all parties are anticipated to cooperate in the continuous efforts to rehabilitate and conserve the coral reefs in ensuring their continuous survival through sustainable management.



SAVE REDANG, LOVE OUR HERITAGE

Beach and reef clean-up programme was carried out on 20 – 21 May 2009 in Redang Island.



This programme was co-organised by DMPM, UNDP, Terengganu Riverine and Coastal Authority (TREVICOSTA) and Redang Reef Rangers. Underwater clean-up carried at Kuala Redang, Terengganu and boundary markers were installed at the area by local divers who were trained by DMPM. The purpose of this programme was to instill awareness to locals on environment and conservation of marine resources.

DPMM Inaugurated Its First Turtle Conservation Project

Both the green (*Chelonia mydas*) dan hawksbill (*Eretmochelys imbricata*) turtles nest on selected beaches of the Pulau Redang archipelagos. Conservation efforts by the State Government of Terengganu and Fisheries Department focus mainly on turtles that nest on P. Redang itself and leave a small portion of their populations on small islands nearby including Pulau Pinang unattended. Realising the fact that sea turtles are endangered and a need for total protection, the DPMM took an initiative by launching its pioneer turtle conservation project at Pulau Pinang which is also the centre of Pulau Redang Marine Park. Activities implemented include protecting adult turtles on beaches and in-water, hatchery programme, and research. Two local residents were engaged in beach patrolling, lights surrounding turtle beaches and human activities at night were minimised, eggs were collected and transplanted to hatchery, and the hatchlings were immediately released into sea.

The project was officially inaugurated by the Hon. Dato' Zol Azha Yusof, the Secretary General of the Ministry of Natural Resources and Environment (NRE) on the 12th June 2009. Mr. Kamarruddin Ibrahim, the Deputy Director General of DPMM, the director of Engineering Division and Terengganu's DPMM State director also attended. Results showed that some 68 nests of the green turtle recorded with 6125 eggs and 3615 hatchlings. Whereas the hawksbill turtle contributed 7 nests, 874 eggs and 516 hatchlings. The control of light at night has proven effective in increasing the number of turtle nesting in 2009 as compared to years before the establishment of turtle project on this island.





EMERGENCY FIRST RESPONSE COURSE



From the 28th - 31st July 2009, the Department of Marine Park Pahang had organised a Water Emergency Rescue Training at the Tioman Marine Park Centre, Pahang.

The objective of the training was to enhance skills, increase general knowledge of DMPM staffs in the aspect water rescue.

The training was attended by 22 participants. (19 DMPM +3 local communities).



Fun Fact CHRISTMAS TREE WORM

Spirobranchus giganteus, commonly known as Christmas tree worms, are small, tube-building polychaete worms belonging to the family Serpulidae.



On the 20th - 24th June 2009, the DMPM Pahang, in collaboration with UNDP-GEF Marine Park Project and Greenfins Malaysia had organised a programme on the installation of mooring and marker buoys around the Tioman Island Marine Park waters.

The programme was participated by DMPM, the local communities, dive operators Tioman Rakan Park and was conducted at Kg. Air Batang, Kg. Tekek, Kg. Paya, Kg. Genting, Kg. Mukut, Kg. Juara and Kg. Salang.

The objectives of the programme were to ensure the mooring and marker buoys facilities are sufficient, existing buoys are maintained in good condition and their safety ensured, as well as to record the locations of the buoys for future reference. Other than that, the programme held can also create awareness and instil sense of responsibilities among the locals, diving operators and the Tioman Rakan Park in monitoring and maintaining the buoys provided by the Department of Marine Park Pahang. This will indirectly strengthen the relationship between them and the staffs of DMPM Pahang.

The Installation and Maintenance of Mooring and Marker Buoys with Pulau Tioman's Rakan Park



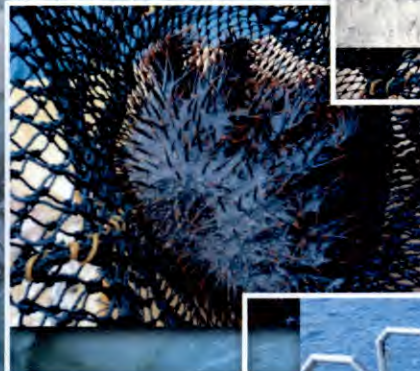
"CROWN OF THORNS" (COTs) CULLING PROGRAMME AT THE MARINE PARK WATERS OF JOHOR

The DMPM Johor, through the Resources Inventory and Research Division had organised a two series programme to collect and remove COTs for the year 2009 which were held in the months of April and July. The first programme on the 16th - 19th April 2009 was carried out at Aur and Pemanggil Island, involving 14 divers from the DMPM and volunteers from the Johor National Parks Corporation, the Department of Fisheries Malaysia and dive operators. During the 4 days programme, 395 COTs were collected from the waters of Aur and Pemanggil Island.

Pemanggil Island	290 COT's
------------------	-----------

Aur Island	105 COT's
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The second series of the programme was carried out on the 21st to 24th July 2009. This program focused more on the research of the distribution of the COTs and reef clean-up activities for Mersing Archipelago. 7 islands were surveyed, which were Tengah, Hujung, Rawa, Goal, Mensirip, Harimau and Besar Island. As usual, divers from the Department of Marine Park Malaysia, volunteers from Johor National Parks Corporation and Dive Shop Operators participated in this programme.



Fun Fact

BOTTLENOSE DOLPHINS

Bottlenose dolphins, *Tursiops truncatus*, are the largest of the beaked dolphins weighing in at 150-200 kg. Head and body length is 175-400 cm, with males being much larger than females. Pectoral fin length is 30-50 cm, and dorsal fin height is approximately 23 cm.



Pulau Kuraman Clean-up Programme

The programme was carried out on the 27th June 2009. The objectives of the programme were to clean the coastal area of Pulau Kuraman which has been gazetted as a Marine Park, and also as an education and awareness campaign to the public regarding littering habit which can deteriorate the marine environment. The programme was organised by the DMPM Labuan in collaboration with Labuan Tourism Action Council. 80 participations recorded from various quarters including the organising secretariats and the representatives of eight secondary schools. The schools were SM Sains Labuan, SM Teknik Labuan, SMK Lajau, SMK Taman Perumahan Badaun, SMK Labuan, SMK Mutiara, SM St. Anne, and SM St. Anthony. The government departments involved were the Marine Department, the Royal Malaysia Custom Department, the Malaysian Civil Defense Department, the Marine Operations Force, the Department of Education, Labuan Corporation, the Department of Environment, the Department of Survey and Mapping Malaysia, the Department of Irrigation and Drainage and a representative from NGO, the Labuan Visual Art.

The amount of rubbish collected during this programme was as much as 80 trash bags. The bags were brought to the Royal Malaysia Custom Department Jetty at Kiamsam Labuan to be disposed by the Labuan Corporation. Mrs Zunaidah Hamzah, a representative of the Labuan Tourism Action Council completed the closing ceremony and handed the certificates to participants.



Fun Fact

BLUE-RINGED OCTOPUS

There are at least 10 species of the tiny blue-ringed octopus, which, ironically for its size, is the most deadly of all cephalopods (they can carry enough poison to kill 26 adults within minutes)



Reef Watchers Orientation Course



Participants were briefed before surveillance activity

Reef Watchers orientation course for local communities was previously held on 9 – 13 November 2009 at Tioman Marine Park Center, Pahang. In 2010, the course was organised on:



Some of the participants during surveillance activity

- 31 March – 3 April 2010 at Redang Marine Park Center, Terengganu
- 1-4 Mei 2010 at Tinggi Marine Park Center, Johor

This course aimed to train local communities and DMPM's enforcement team to work hand in hand to protect the Marine Park. Local communities were also trained to be informers who will provide information to the authority on illegal activities in Marine Park waters. DMPM's enforcement team and 28 locals from Sibu-Tinggi, Perhentian and Redang were trained during the 4 days course.



Marine Park in News



N34 NATION THE STAR, TUESDAY 2 FEBRUARY 2010

Fishing intruders nabbed

Six vessels caught in Pulau Redang marine park

By R.S.N.MURALI
newsdesk@thestar.com.my

KUALA TERENGGANU: The Marine Parks Department has thwarted attempts by six fishing vessels to encroach into prohibited areas around Pulau Redang near here since the beginning of the year.

In all the cases, the boats were locally registered but the fishing crew were foreigners.

Department director-general Abd Jamil Mydin said yesterday the vessels entered prohibited waters despite knowing that they were barred from doing so.

Terengganu has 13 gazetted marine parks and fishermen are not



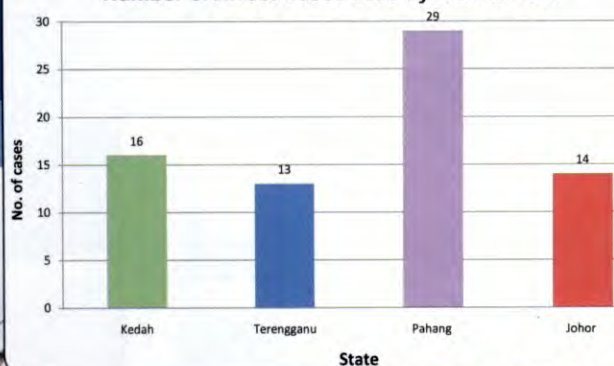
Seized: The two Johor-registered fishing boats, which were seized during the raid, were kept at the Department of Fisheries jetty in Chenderoh.

Capacity Building Courses 2009

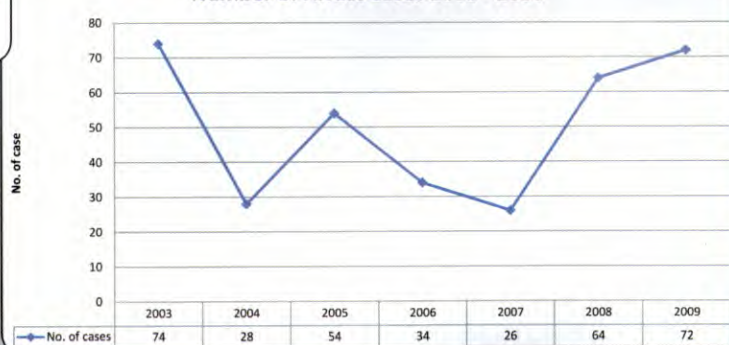
No.	COURSES	DATE	LOCATIONS	No. of PARTICIPANTS	GROUPS
1	'Crafting Supreme Image(CSI) & Mindset Transformation'	02 – 04 Mac 2009	PTL Pulau Tioman	25	Sokongan 1 & 2
2	Pengukuhan Penguatkuasaan	06 – 10 Mac 2009	PTL Pulau Tioman	23	Sokongan 1 & 2
3	'Basic Safety Training Course' (BST – STCW 1995)	05 – 09 April 2009	Ranaco Industrial Training Centre (RITC)	10	Sokongan 1 & 2
4	Mate Domestic Voyage (KSDC 6L)	13 – 24 April 2009	Terengganu Safety Training Centre (TSTC)	10	Sokongan 1 & 2
5	'Basic Safety Training Course' (BST – STCW 1995) – siri 2	17 – 21 Mei 2009	Ranaco Industrial Training Centre (RITC)	12	Sokongan 1 & 2
6	General Operator Certificated/ Restricted Operator Certificated	15 – 26 Jun 2009	Pelita Akademi	1	Sokongan 2
7	'The Micro Strategy Development for Conservation' (Fasa 1)	03 – 08 Ogos 2009	Selesa Hillhomes Resort	30	Pengurusan & Profesional
8	'Crafting Supreme Image(CSI) & Mindset Transformation' – siri 2	28 – 30 September 2009	PTL Pulau Redang	25	Sokongan 1 & 2
9	Pengukuhan Penguatkuasaan – siri 2	01 – 05 Oktober 2009	PTL Pulau Redang	25	Sokongan 1 & 2
10	'The Micro Approach of Managerial Development Capability' (Fasa 2)	05 – 10 Oktober 2009	Selesa Hillhomes Resort	30	Pengurusan & Profesional
11	Beladiri & 'Senaman Tua'	19 – 21 Oktober 2009	Dusun Eco Resort	30	Sokongan 1 & 2
12	'Engineer Officer Less Than 750kW in Domestic and Near Coastal Trade Voyage' (EO)	02 November – 24 Disember 2009	Pelita Akademi	10	Sokongan 2
13	'Officer in Charge of a Engineering Watch 750kW or More in Near Coastal Trade Voyage' (WKE)	02 November – 24 Disember 2009	Pelita Akademi	10	Sokongan 2
14	'The Micro Approach of Resource Allocation and Monitoring' (Fasa 3)	02 – 07 November 2009	Selesa Hillhomes Resort	30	Pengurusan & Profesional
15	'Officer in Charge of a Navigational Watch 500GT or More in Near Coastal Trade Voyage' (WKO)	16 November 2009 – 19 Februari 2010	Pelita Akademi	12	Sokongan 1 & 2

ENCROACHMENT CASES IN MARINE PARK

Number of Arrest Cases 2009 by Marine Park



Number of Arrest Cases 2003 - 2009



72 arrest cases in 2009

WELCOME STAFF 2009



No.	NAME	DESIGNATION	GRADE	DATE JOINED
1	Mohd Kamal bin Mohd Yusof	Director of Development Division	J48	19.01.09
2	Halijah binti Mat Sin	Director of Education and Interpretation Information Division	G48	21.12.09
3	Mohamed Ridzuan bin Mohamed Alias	Marine Park Officer	G44	01.12.09
4	Mustaffar bin Mohamud	Marine Park Officer	G41	05.01.09
5	Maznah binti Yusoff	Marine Park Officer	G41	05.01.09
6	Nur Azlina Chan binti Mahadie Chan	Admin and Diplomatic Officer	M41	24.11.09
7	Ramlah binti Ahmad	Civil Engineer	J41	16.11.09
8	Muhamad Firdaus bin Abdul Aziz	Assistant Marine Park Officer	G27	01.06.09
9	Mohd Azro bin Mohd Nor	Assistant Marine Park Officer	G27	01.06.09
10	Abdul Ghaffar bin Salleh	Assistant Marine Park Officer	G27	01.06.09
11	Mohd Hazliefaziman bin Hadi	Assistant Marine Park Officer	G27	01.10.09
12	Rahimah binti Shari	Administration Assistant (Finance)	W17	20.07.09
13	Ahmad Imran Bin Mahamad	Marine Park Assistant	G17	31.03.09
14	Mohd Zamri bin Mahmood	General Worker	R1	01.04.09

Currently DMPM has 218 staffs from all over the country, with 178 from them are permanent while the others are either on contract or part-timers.



NRE Biennial Sports Day 2009



On the 17th - 19th July 2009, a biennial sports day was held by the Ministry of Natural Resources and Environment (NRE) at Petronas Training Centre, Bangi. DMPM competed in 19 events out of 21 held, with participations of 135 athletes, including from the marching team.

Well preparation has led DMPM won the Marching Event, defeating other agencies and departments. The preparation by DMPM included training and improving

the discipline of the athletes. The Marching Event was also sauced with accompaniment of Marine Park Mascots which reflected the identity of DMPM.

"For DMPM, the spirit of sportsmanship and the willingness to try to do the best come first before talent in producing excellent athletes"



COLOURS of MARINE PARK



Coral Bleaching



What is Coral Bleaching?

- Coral bleaching is the whitening of corals, due to stress-induced expulsion or death of symbiotic, algae-like protozoa, or due to the loss of pigmentation within the protozoa.
- The corals that form the structure of the great reef eco-systems of tropical seas depend upon a symbiotic relationship with unicellular flagellate protozoa, called zooxanthellae, that are photosynthetic and live within their tissues.
- Zooxanthellae give coral its coloration, with the specific color depending on the particular clade.
- Under stress, corals may expel their zooxanthellae, which lead to a lighter or completely white appearance, hence the term "bleached".

Causes of Coral Bleaching

- The increase or reduction of sea water temperature
- Solar radiation
- Changes in water chemistry (acidification)
- The lack of zooplankton
- Increased sedimentation
- Pathogen infection
- Changes in salinity of sea water
- Exposure to low tide
- Cyanide Fishing



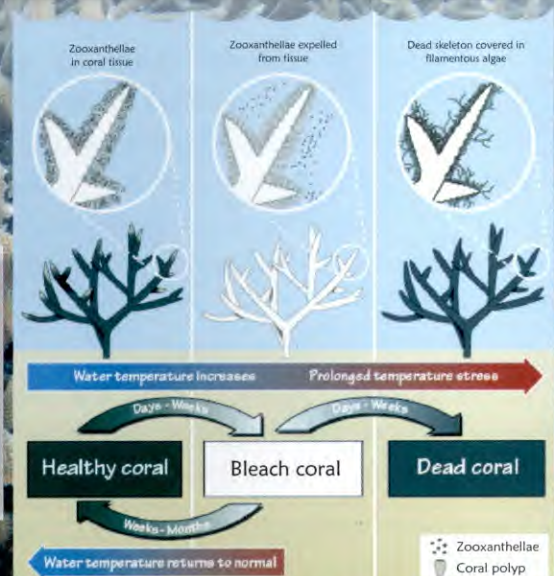
Healthy coral



Bleach coral



Dead coral



Y.Bhg. Dato' Zool Azha bin Yusof's Work Visit to "All Weather Boat" Project.

Pasir Gudang, 12 March – Located at the shipyard of Kejuruteraan Kapal Masai Sdn Bhd, Pasir Gudang, Johor, the Department of Marine Park Malaysia (DMPM) with Kejuruteraan Kapal Masai Sdn Bhd had

cooperated to conduct a work visit by Y.Bhg. Dato' Zool Azha bin Yusof the Secretary General of Ministry of Natural Resources and Environment, Also present was the Y.Bhg. Datuk Aziyah bt. Mohamed, Deputy Secretary General I of Ministry of Natural Resources and Environment, The purpose of the visit was to report the latest status of the project to the Secretary General. During the visit, several programme were conducted, including the briefing session to the Secretary General by the Director General of DMPM, progress presentation by the contractor, discussions on issues and problems and also visits to

the shipyard. During the briefing session, the Secretary General had agreed to appoint a staff to monitor and report the project's progress to the Putrajaya DMPM headquarter twice a month. Concluding the work visit, the Secretary General had advised the contractors to work harder to ensure that the project will be completed on time.



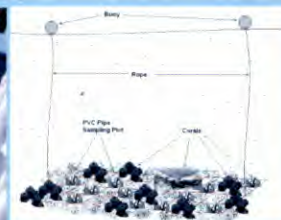
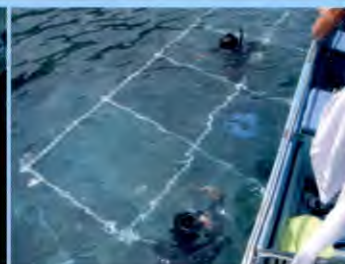
OTHERS DEVELOPMENT PROJECTS



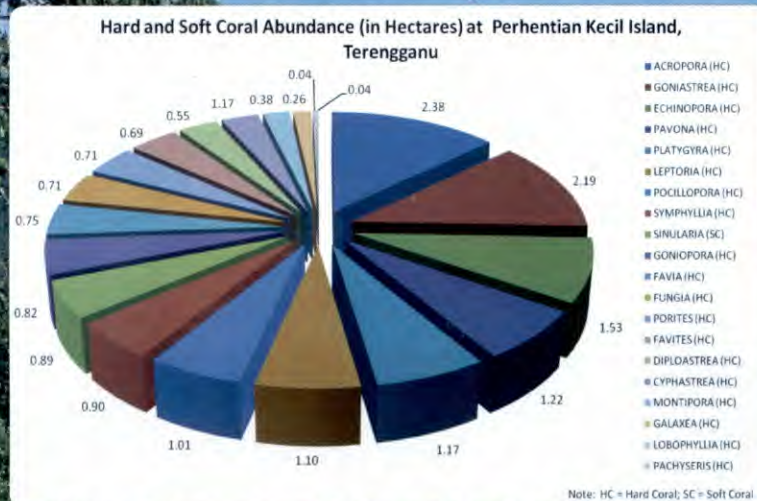
Coral map has long been used as an important tool in the planning and managing coral ecosystem in advanced countries. This study was conducted for the first time in Malaysia using an airborne hyperspectral imaging technology. A field study was attempted in a 2nm water area zoned as Malaysian Marine Park surrounding the island of Pulau Perhentian Kecil (05° 55'N, 102° 44'E) in Terengganu. The main objective of the project was to identify, quantify and discriminate coral distribution within the vicinity of this island. The airborne data was collected on 19 October 2009 by a hyperspectral sensor fixed to a Short SC7 Akyvan plane that was flown at 1,000m altitude with a flying speed of 60ms⁻¹ (120 knots). The ground truthing data was gathered during a period from 6-17 September 2009 covering the collection of underwater photographs of corals and other substrates, spectral reflectance (using GER 1500 spectroradiometer) and habitat locations (using Trimble and Garmin GPS). 10 plots (20m x 4m each) were chosen from eight selected sampling sites (namely Gua Kambing, Batu Nisan, Tanjung Langai, Pasir Mengalau, Batu Peti, Teluk Panglima Abu, Pasir Petani and Tanjung Butong) for the ground truthing data acquisition.

Result shown that corals were distributed all over the coastal area except those off Long Beach and Pasir Hantu of Pulau Perhentian Kecil with different densities. The hard corals were 17.92% from which 14.01% of it was *Acropora* group, while the soft coral contributed only 0.94%, represented entirely by *Sinularia*. The non-corals (algae, giant clams, rock etc.) and other habitat components (coral rubble, dead corals etc.) were 72.91% and 8.23%, respectively.

CORAL MAPPING IN PULAU PERHENTIAN KECIL MARINE PARK, TERENGGANU



Ground Truthing Activity



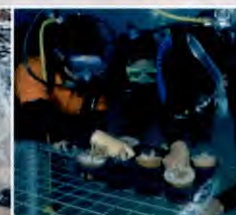
Output: Coral Discrimination Graph

CORAL RESTORATION PROGRAMME IN PULAU TIOMAN, MARINE PARK, PAHANG

Corals may die due to natural and man-made causes. Restoration is a common tool used in managing degraded coral ecosystem. It involves the transplantation of life coral fragments to an affected area. This activity was carried out for the first time in Pulau Tioman Marine Park during the 20th until 23rd April 2010, initiated by the DPMM's Research and Inventory Division, in close collaboration with the DPMM's Pahang State counterpart and supported by eight internship students from local universities.

Colonies of corals that grow underneath of the pontoons at Kg. Tekek' marina were manually collected, placed in the plastic basket, towed by a boat at slow speed to an

area near the DPMM's jetty. While be under water, the corals were then fixed onto tiny cement-filled orchid pot using an epoxy. All pots were arranged on plastic trays before fixing them on the iron tables and left under water for the corals to grow naturally.



STUDY OF THE CROWN OF THORNS (COT's): *IT'S POTENTIAL IN THERAPEUTIC AND NEUTRACEUTICAL*

Sampling: physical measurements and sample preservations



The collection and sampling activity of COT's was done on 25 – 27 July 2009 at Pulau Redang Marine Parks Centre that involve marine parks officers and researcher from Universiti Sains Malaysia (USM). The objectives of this study was to identified the potential of COT's in health care and pharmacies. Sampling procedure involve i) recording of physical data (ie: size in diameter of COT's, number and length of arms, number and length of thorns/ arm) and ii) preservation of organs for laboratory analysis. The laboratory analysis conduct at USM Penang and USM Kubang Kerian. The COT's study involved were i) Ecology; ii) Molecular Characterisation; iii) Taxonomy; iv) Lipid Analysis; v) Chemical Characterization; and vi) Drug Modulation. This study ongoing and first finding by the USM scientists revealed that there was a potential of anti-cancer and anti-aging in COT's.



NATIONAL CONFERENCE OF MARINE BIODIVERSITY 2009

National conference of marine biodiversity 2009 with the theme of "Marine Biodiversity: inventory and current status" was conducted on 6th to 7th October 2009 at Kajang, Selangor. The main objective of this conference was to gather the latest information about the inventory of marine species in the waters of the country and understand the issues, problems and obstacles faced by the relevant. This conference was organise by Department of Marine Park Malaysia, Ministry of Natural Resources and Environment (NRE) with co-operate Marine Ecosystem Research Centre (EKOMAR), National University of Malaysia (UKM). This conference was launch by the representative Secretary General (KSU), Ministry of Natural Resources & Environment Dr. Teddy Lian Kok Fei. A total number of 21 paper presentations were present by 19 speaker and the 60 participants (researchers from outside) have attended this conference.

THE COFFEE TABLE BOOK LAUNCHING CEREMONY

The DMPM has successfully launched a Coffee Table Book entitled *Marine Parks of Malaysia: Beauty Beyond the Land* on the 26th January 2010. The ceremony which was held at the Ibunda Malay Fine Dining Kuala Lumpur, was inaugurated by Y.B. Tan Sri Datuk Seri Panglima Joseph Kurup the Deputy Minister of Natural Resources and Environment.

The Book aim to create awareness on the importance of marine treasures, of which their depletion could lead to declining of natural resources and degradation of the marine heritage. The 200 page pioneer book by the DMPM can be rendered useful as souvenirs to government and private organisations alike as a means in promoting local tourism to other countries as well as introducing Malaysia's magnificent marine parks.

The public can attain this book from DMPM nationwide at RM170 per copy.



Fun Fact

PTEFFER'S FLAMBOYANT CUTTLEFISH

Metasepia pfefferi (Hoyle, 1885), is a truly amazing animal and well named. A favorite of underwater photographers and videographers, the flamboyant cuttlefish displays stunning changing colors and patterns and actually "walks" along the bottom of the sea.



The Marine Park Experience@Aquaria KLCC programme was carried out from the 1st January until 31st December 2009 at the Aquaria KLCC. The programme was held in order to give opportunities for those visiting in experience the pleasures of being in a Marine Park and create awareness on Marine Biodiversity and it's environment. The programme was collaborative effort between Aquaria KLCC, the DMPM, the National Museum and Johor National Parks Corporation.

The programme was inaugurated by Y.B. Tan Sri Datuk Seri Panglima Joseph Kurup, Deputy Minister of Ministry of Natural Resources and Environment on the 30th of July 2009 at the Aqua Theatre, Aquaria KLCC. The inauguration was also in conjunction with the second anniversary of the DMPM, which was established on 16th of July 2007.

The Marine Park Experience@Aquaria KLCC Programme





AWARENESS PROGRAMME



The establishment of the 'Rakan Park' team has successfully deter encroachments, with 29 arrest cases by the DMPM around the Tioman Island Marine Park from January until December 2009.

For 2008 alone, 28 arrests were made, which is considered as the highest number of cases, in comparison to other Marine Parks. Most arrests were made upon local fishermen who had used trawl nets.

Statistics also showed that most fishermen who had encroached Tioman Island Marine Park were from Endau, Johor. The Rakan Park team which was established three years ago has 30 members from the villages of Tioman Island, who has served as the eyes and ears for the Department of Marine Park Malaysia. They serve voluntarily in reporting any suspicious activities in the area of Tioman Island Marine Park. With an area of 676 kilometre around nine islands in Tioman Archipelago, our enforcement officers have to deal with difficulties in monitoring all of the islands.

RAKAN PARK

APPOINTMENT *OF* CONSULTANTS

The Director General of DMPM, on behalf of the Government of Malaysia, has signed the contract with Unit Perundingan Universiti Malaya (UPUM) on 5th June 2009. Work commencement date was on 16th February 2009.

Following that, Project Management Unit has organised a site visit to Tioman and Sibu-Tinggi Island on 25th – 29th March 2009 and to Redang Island on 1st – 4th April 2009. The Consultants were introduced to the locals and the trip helped the Consultants to get a quick assessment of the sites and also for fact findings.

An Interface Meeting between the Consultants and DMPM staffs has also been organised on 16th June 2009. The meeting was held to introduce the Consultants to DMPM staffs, vice versa, so that they can work closely together during the project.



Socialisation Workshop

Socialisation Workshop was held in Tioman Island on 7th – 11th February 2010. The objective was to foster greater understanding between the local communities, tourism operators and DMPM besides getting their feedbacks on the project. Visits and discussions were done with local communities in Kampung Tekek, Paya, Genting, Mukut, Salang and Juara. Meeting was also done with dive operators focusing on the formation of the dive operators association.



Marine Park Policy Workshop

Marine Park Policy Discussion Workshop was successfully organised on 2nd February 2010 at Putrajaya International Convention Centre (PICC). The Marine Park Policy is developed to assist DMPM in the management of Marine Parks. This workshop was held to discuss and improve the Marine Park Policy draft which has been prepared and previously discussed with DMPM Management in December 2009. The Workshop involved various Federal and State Agencies as well as NGOs.



RTM X-PLORASI SHOOTING

The Project Management Unit (PMU) has successfully arranged for the shooting of 'Xplorasi' documentary programme for RTM. The documentary highlighted a few diving sites in Redang Island including the seahorse artificial reefs, interviews with DMPM officers, JKKK and Redang Reef Rangers. This documentary will also help to publicise the Project and highlight the conservation efforts in Redang Island, Tioman Island and Sibu-Tinggi Island.



RAINFOREST TO REEF



Outreach Programme

The Rainforest to Reef (R2R) Programme was developed by Reef Check Malaysia (RCM) in 2008 after a discussion with DMPM to introduce a sustainable education and awareness programmes for the school children on the Marine Park islands. RCM secured funding from Alstom Foundation to implement this programme from 2009-2011 on 3 Marine Park islands, namely Perhentian, Redang and Tioman. The R2R programme consist of 3 activities each year – 2 Supporting Activities and 1 Coral Reef Camp. This ensures a continuous presence throughout the year, as well as to reinforce the lessons learnt during each activity. The programme was successfully implemented in 2009, reaching out to 180 children from all three islands, as well as over 100 volunteers from the sponsor company in Malaysia, Alstom Power. As part of the programme, an on-going training for these volunteers are held to encourage greater participation, with the hope that they will conduct these programmes continuously in the future as part of the company's long term conservation effort.

The R2R Programme for 2010 started with its first Supporting Activity held on 27th March in Tioman and simultaneously on 10th April in Perhentian and Redang. The one-day programme included a combination of each cleanup, jungle walks and a poster colouring competition. These activities were conducted to encourage a hands-on experience in the beauty of nature itself as well as to develop a sense of appreciation and love for nature. Several games were also conducted along the jungle trail to deepen their knowledge of the jungle ecosystem as well and encourage further actions to preserve the environments around them. A total of 60 children from each of the three islands participated in the programme which also involved RCM and DMPM staff, teachers as well as over 40 volunteers from Alstom Power. Logistical support was also provided by Berjaya Hotels and Resorts in both Redang and Tioman.



NUDIBRANCH

"Nudibranch" comes from the Latin *nudus* - naked, and the Greek *brankhia* - gills. A non-scientific term Nudibranchs are often called "sea slugs".

Most nudibranchs are carnivores. Some feed on sponges, hydroids, bryozoans and some eat other sea slugs. Other groups feed on tunicates, barnacles, or anemones. This species slow-moving, voracious predators consuming prey that are still slower or that do not move at all, attached to a hard surface such as a rock. Nudibranchs belong to the subclass known as opisthobranchs.

Many nudibranch also have a simple gut and a mouth with a radula. They lack a mantle cavity. Their eyes are simple and able to discern little more than light and dark. The eyes are set into the body, are about a quarter of a millimeter in diameter, and consist of a lens and five photoreceptors. They vary in adult size from 20 to 600 millimetres (0.79 to 24 in).

Nudibranchs are hermaphroditic, and thus have a set of reproductive organs for both sexes, but they can rarely fertilize themselves. Nudibranchs typically deposit their eggs within a gelatinous spiral.

Among this group can be found the most colourful creatures on earth. In the course of evolution, sea slugs have lost their shell because they have developed other defense mechanisms. Their anatomy may resemble the texture and colour of the surrounding plants, allowing them to camouflage (*cryptic behaviour*). Others, as seen especially well on chromodorids, have an intense and bright colouring, which warns that they are distasteful or poisonous (aposematic colouration).

NUDIBRANCHS SP.

The opisthobranch gastropods or sea slugs are also known as nudibranchs (literally translate as naked gills) due to the absence of shells and their breathing apparatus. Most species have a pair of antennas on their heads. Being naked and slow moving, nudibranchs protect themselves via camouflage and toxic and distasteful chemical secretions that make them distasteful to predators.

www.dmpm.nre.gov.my

HOW CAN WE HELP

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Website : www.dmpm.nre.gov.my

There are a lot we can do to protect our coral reefs and help our coastal communities. Here are just a few:

- Report illegal fishing activities that destroy reefs, such as illegal trawling to DMPM.
- Do not remove living shells or corals or buy ornamental shells or coral. Shells are important animals in the healthy coral reef environment, especially Triton shells that eat COTS.
- Dispose of chemicals and trash properly. Waste thrown into rivers will be carried to the ocean where it kills healthy reefs and other marine animals.
- Participate in COTS and coastal clean-ups.

