





Media Release

For Immediate Release

Ancient mariners exploring new routes:
Satellite-tracked 2nd generation UWS Hawksbill Turtles
returned to Singapore
after months of travels

Singapore, 19 April 2011 – After months of tracking the second generation hawksbill turtles since their release in August last year, the preliminary satellite tracking results from the 2010 UWS-Nagoya Hawksbill Turtle Tag-and-Release Project were presented at the 2nd Multidisciplinary Forum titled "Turtle Conservation: Possibilities and The Way Forward" jointly organised by NUS Raffles Museum of Biodiversity Research (RMBR) and Underwater World Singapore (UWS). The Forum discussed the outcome of these results and facilitated cross-disciplinary discussions among scientists, students and conservation groups on the way forward for turtle conservation efforts in the region. (Please refer to the attached synopsis.)

Lead Researcher and Forum Panellist Dr Tomomi Saito of Port of Nagoya Public Aquarium (PNPA), Japan, explained that two of the eight hawksbill turtles offered sufficient data for valuable research analyses. This research helped to provide insights on the possible migration routes of juvenile hawksbills when released from Singapore waters. From the data, Dr Saito found that one hawksbill turtle travelled 2,635km in a span of 83 days to reach the final recorded position in open waters near the Philippines. Another hawksbill turtle transmitted data for 58 days and travelled 137km before returning home to the lagoon of Pulau Semakau of Singapore. (Please refer to the attached maps.)

A search was organised by UWS when two of the transmitters were sending signals that indicated they were on land. Relying on the coordinates from the National Oceanic and Atmospheric Administration (NOAA) maps, Catharine Winata, a local associate of UWS in Indonesia located the two transmitters.





UNDERWATER WORLD
Singapore

A Member Of The 秀約Haupar Group

One was washed ashore onto Batam Island, which had detached from the turtle, and the other was found in a village in Rempang Island. That particular turtle had died after being entangled in a fishing net. The villagers on both islands of Indonesia have expressed much curiosity about the Hawksbill Conservation Project and offered to help look out for other satellite tagged turtles.

In conclusion, Dr Saito commented that "Data obtained from the 8 Hawksbill turtles was valuable to research on the ecology of juvenile Hawksbill turtles and may lead to a better understanding of the local marine environment. However, a more conclusive outcome may only be derived from longer term research. The detours made by the Hawksbills may imply a lack of food in the natural environment, and perhaps securing feeding stations around the islands in the region and setting up marine sanctuaries may aid sea turtle conservation in Singapore and the region."

The 2nd Multidisciplinary Forum Panel comprised Project Collaborators and international turtle experts from Japan and the United States who joined the Forum via teleconference — Dr Tomomi Saito, Project Lead Researcher from PNPA, Dr George Balazs, Research Biologist and Leader of the Marine Turtle Research Program at the NOAA, US, and Mr Marc Rice, Director of Cooperative Sea Turtle Research Program at Hawaii Preparatory Academy; Singapore's inspiring academics in nature conservation and biology education — Professor Peter Ng, Director of RMBR and the Tropical Marine Science Institute of NUS, Professor Leo Tan, Director (Special Projects) of the Faculty of Science at NUS and an Honorary Member of the UWS Educational Advisory Panel, and Dr Shawn Lum, Forum Moderator and a Faculty Member of the Natural Sciences and Science Education Department of the National Institute of Education (NIE); Associate Professor Irene, Lye Lin-Heng, Deputy Director of the Asia-Pacific Centre for Environmental Law at NUS; and Mr Anthony Chang, UWS Curator. Turtle conservationists in Indonesia as well as reporters in Nagoya, Japan, also joined the Forum via teleconference.

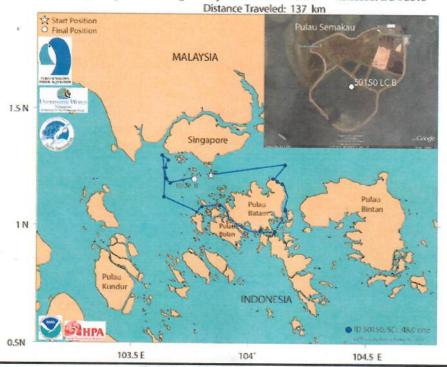




2010 movement of Port of Nagoya Public Aquarium hawksbill turtle, ID 50147 released by Underwater World Singapore from Palau Subar Laut (Big Sister's Island)
Days Transmitting: 83 days TAM-2639 6/24 Released: 8/24/2010



FINAL MAP:
2010 movement of Port of Nagoya Public Aquarium hawksbill turtle, ID 50150 released by Underwater World Singapore from Palau Subar Laut (Big Sister's Island)
Days Transmitting: 58 days TAM-2639 6/24 Released: 8/24/2010













Programme

2010 UWS-Nagoya Hawksbill Turtle Tag and Release Project & 2nd Multidisciplinary Forum
Turtle Conservation: Possibilities and The Way Forward

Date: 19 April 2011 (Tuesday) Time: 9 am to 11.15 am

Venue: Underwater World Singapore (UWS), Sentosa

9 am:

Registration

9.30 am:

Welcome Address

Mr Peter Chew, Deputy General Manager of Underwater World Singapore

Keynote Address

Professor Peter Ng, Director of Raffles Museum of Biodiversity Research and Director of Tropical Marine Science Institute, National University of Singapare

9.35 am:

Forum Opening and Introduction of Panellists

Dr Shawn Lum, Forum Moderator and Faculty Member of Natural Sciences and Science Education Department, National Institute of Education (NIE), Singapore

Panellists:

- Dr Tomomi Saito, Project Collaborator and Lead Researcher and the Chief Officer of the Turtle Breeding and Research Programme at the Port of Nagoya Public Aquarium of Japan (PNPA)
- Dr George Balazs, Project Collaborator and the Leader of the Marine Turtle Research Program at the National Oceanic and Atmospheric Administration (NOAA), USA
- Mr Marc Rice, Director of Cooperative Sea Turtle Research Program at Hawaii Preparatory Academy (HPA), USA
- Professor Leo Tan, Director (Special Projects) of the Faculty of Science, National University of Singapore (NUS) and Honorary Member of the Educational Advisory Panel of Underwater World Singapore
- Professor Peter Ng, Director of Raffles Museum of Biodiversity Research (RMBR) and Director of Tropical Marine Science Institute, NUS
- Associate Professor Irene Lye Lin-Heng, Deputy Director of Asia Pacific Centre for Environmental Law (APCEL), NUS
- Anthony Chang, Curator, Underwater World Singapore (UWS)

9.40 am:

Sharing of Satellite Tracking Results by Project Collaborator

- Anthony Chang, UWS (Presentation on behalf of Project Collaborators)
- Dr Tomomi Saito [Via teleconference]
- Dr George Balazs, NOAA, and Mr Marc Rice, HPA [Via teleconference]

9.50 am:

Open Floor Discussion *

11.00 am:

Closing Remarks

Dr Shawn Lum, Forum Moderator

11.15 am:

Reception

* Special guests participating at the Open Floor Discussion include:

 Associate Professor Diong Cheong Hoong, Faculty Member of Natural Sciences and Science Education Department, National Institute of Education (NIE), Singapore, and Academic Advisor for UWS' turtle conservation projects

Catharine Winata, Turtle Conservationist from Indonesia (via teleconference)

Event Website: www.underwaterworld.com.sg/conservation-turtles.htm











Forum Panel

Moderator:

Dr Shawn Lum is the Forum Moderator. As a Faculty Member of the Natural Sciences and Science Education Department of National Institute of Education (NIE), Singapore, he teaches subjects such as "Environmental Studies and Global Issues" and "Conservation and Management of Natural Habitats". His research interests focus on "Conservation Biology", "Population Genetics", and "Plant Evolutionary Ecology".

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 the Port of Nagoya Public Aquarium of Japan (PNPA). He is also the Lead Researcher of the 2010 UWSNagoya Hawksbill Turtle Tag and Release Project which was listed as a partnership project of the COP10
 of the Convention on Biological Diversity held in Nagoya, Japan, in October 2010.
- Dr George Balazs is a Research Biologist and the Leader of the Marine Turtle Research Program at the National Oceanic and Atmospheric Administration (NOAA), USA. In 2005, Dr George Balazs was recognised by the USA National Wildlife Federation for his 34-year commitment to the recovery of the endangered Hawaiian green sea turtle.
- Mr Marc Rice is the Director of Science and Technology and the Director of Cooperative Sea Turtle Research Program at Hawaii Preparatory Academy (HPA). A teacher with 40 years of experience, he is responsible for the development, scope, and hands-on approach of the school's marine programs. Under his supervision, HPA students formed a volunteer sea turtle rescue team for West and North Hawaii in partnership with National Marine Fisheries Service. Mr Rice is also a member of the Marine Turtle Specialist Group of the International Union for the Conservation of Nature and Natural Resources (IUCN).
- Professor Peter Ng is the Director of Raffles Museum of Biodiversity Research, Director of the Tropical
 Marine Science Institute, and Professor of the Department of Biological Science, Faculty of Science,
 National University of Singapore. He is a specialist in studies of biodiversity, conservation and ecology.
 Dubbed Singapore's top man of biodiversity by The Straits Times, he is one of the two prime movers
 behind the successful fundraising effort for Singapore's new natural history museum.
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 interest in animal cognition. His areas of interest in the aquarium include shark and ray biology, jellyfishes
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Special Guests:

- Associate Professor Diong Cheong Hoong is a Faculty Member of the Natural Sciences and Science
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 very own turtle expert, A/P Diong is a long-time Academic Advisor for Underwater World Singapore's turtle
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- Catharine Winata is a turtle conservationist from Indonesia.











Synopsis

2010 UWS-Nagoya Hawksbill Turtle Tag and Release Project & 2nd Multidisciplinary Forum Turtle Conservation: Possibilities and The Way Forward

Date: 19 April 2011 (Tuesday) Time: 9 am to 11.15 am

Venue: Underwater World Singapore (UWS), Sentosa

As the battle to save turtle populations involves complex issues of a global nature that can best be addressed holistically by an international multidisciplinary panel, Raffles Museum of Biodiversity Research (RMBR), NUS, and Underwater World Singapore (UWS) co-organised the 1st Multidisciplinary Forum on Turtle Conservation titled "Turtles Towards Extinction: How late are we? Is it too late?" to facilitate cross-disciplinary discussions among scientists, students and conservation groups on 24 August 2010 just before the release of 8 satellite-tagged Hawksbill turtles off Big Sister's Island. Moderated by Professor Peter Ng, RMBR Director, the panel comprised Professor Leo Tan of NUS and Honorary Member of UWS Educational Advisory Panel, international turtle experts from Japan — Dr Tomomi Saito, Chief Officer of the Turtle Breeding and Research Programme at the Port of Nagoya Public Aquarium (PNPA), and USA — Dr George Balazs, Leader of Marine Turtle Research Programme (National Oceanic and Atmospheric Administration) among others.

After months of tracking the Hawksbill turtles released on 24 August 2010, some results have emerged. RMBR and UWS are co-organising the 2nd Multidisciplinary Forum on Turtle Conservation to stimulate discussions on how the findings can help shape turtle conservation efforts in Singapore and the region.

Event Website: www.underwaterworld.com.sg/conservation-turtles.htm











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 conservation projects.
- Catharine Winata is a turtle conservationist from Indonesia.











Background

Hawksbill Turtle Tag-and-Release Project 2010

In commemoration of the International Year of Biodiversity, Underwater World Singapore (UWS) collaborated with the Port of Nagoya Public Aquarium (PNPA) of Japan and National Oceanic and Atmospheric Administration (NOAA) of USA in the release of 13 second-generation Hawksbill Turtles off Singapore's Big Sister's Island (*Pulau Subar Laut*) as part of their effort to study the migratory behaviour of this endangered species of turtles with satellite tracking devices.

The Hawksbill Turtle Tag and Release project arises from the collaboration between UWS and PNPA on sea turtle conservation programmes that dated back to the 1990s. Both aquariums were involved in the successful captive breeding of the highly endangered Hawksbill Turtle (*Eretmochelys imbricata*). Found in shallow waters around coral reefs, hawksbills are marine turtles that feed mainly on sponges and crustaceans, and are listed as "critically endangered" in The Singapore Red Data Book. The turtles participating in this 2010 project were born in Japan from first-generation turtles that were donated by UWS to PNPA in 1997 and 2002. Since their return from Japan in May 2010, UWS had been their temporary place of stay for observation and acclimatization before the eight 3-year-old turtles and five 1-year-old turtles were released off Singapore's Big Sister's Island on 24 August 2010. Satellite tracking devices were fitted on to the eight 3-year-old turtles with the expertise and technical support from the National Oceanic and Atmospheric Administration (NOAA) of USA. Dr Mohamad Maliki Bin Osman, Senior Parliamentary Secretary for National Development and the Guest-of-Honour, and some 150 participants including undergraduates and primary school students, were invited by UWS to witness the release of the turtles.

This was the third time that UWS released sea turtles fitted with satellite tracking devices back into their natural habitat, with previous releases in 2002 and 2006.











1st Multidisciplinary Forum on Turtle Conservation titled "Turtles Towards Extinction: How late are we? Is it too late?"

Zoos and aquariums have demonstrated success in conserving and breeding animals, some of which are endangered species. However, one question comes to mind - Is it enough to be breeding animals and learning about them in the zoos and aquariums? Or should future steps endeavour to not only breed them but reintroduce them into the wild? This is extremely important because that is the essence of all conservation science and management. The tagging and release of endangered Hawksbill turtles into their natural habitat will allow us to study the release of these endangered captive-bred turtles. Such research findings are important, not only for a better understanding of their biology but will also allow conservation scientists to formulate more effective management regimes to protect them in the wild. The goal must be to conserve these marine turtles for the long term in their natural habitat.

Forum Moderator

Professor Peter Ng, Director of Raffles Museum of Biodiversity Rr search, NUS

Panellists:

Dr Tomomi Saito, Chief Officer of the highly successful Turtle Breeding and Research Programme at the Port of Nagoya Public Aquarium of Japan (PNPA)

Dr George Balazs, Leader of the Marine Turtle Research Program at the National Oceanic and Atmospheric Administration, USA

Mr Marc Rice, Director of Cooperative Sea Turtle Research Program at Hawaii Preparatory Academy, USA

Associate Professor Simon Tay, Chairman of the Singapore Institute of International Affairs

Professor Leo Tan, Director (Special Projects) of the Faculty of Science at the National University of Singapore

Mr Anthony Chang, Curator of Underwater World Singapore











About Underwater World Singapore

Underwater World Singapore (UWS) is a wholly owned subsidiary of Haw Par Corporation. Situated on Sentosa Island, this leisure and educational attraction showcases the rich variety of marine life to be found around the region, with educational and recreational activities available here. At UWS, our mission goes beyond making our guests aware of the fascinating marine life. Our commitment to marine conservation and environmental awareness is demonstrated through our work in public education, breeding, rescue and rehabilitation, and research. UWS reinforces its environmental efforts through educational exhibits and a variety of education programmes to children and other guests. School visits are actively supported, and a number of new educational programmes are planned. UWS has also been very active in providing special programmes and assistance to the physically and mentally disabled. http://www.underwaterworld.com.sg/conservation.htm

About Raffles Museum of Biodiversity Research

The Raffles Museum of Biodiversity Research at the National University of Singapore has its origins in the Raffles Museum, which was founded in 1849. It currently has one of the largest collections of Southeast Asian animals in the region and is a leader in the field of Southeast Asian biodiversity research. http://rmbr.nus.edu.sg/

About Port of Nagoya Public Aquarium

Since its founding in 1992, the Port of Nagoya Public Aquarium (PNPA) of Japan, has served not only as a social educational and recreational facility to exhibit animals to the public, but also as a research facility to study the ecology of endangered species. Well aware of the importance of protecting, preserving and breeding wildlife, PNPA has engaged in various activities to breed and protect endangered species such as sea turtles and penguins. http://www.nagoyaaqua.jp/aqua/othe/engl/acti/index.html

About National Oceanic and Atmospheric Administration (NOAA)

From their beginnings in 1807 to their recognition in 1970, the National Oceanic and Atmospheric Administration (NOAA) of USA is an agency that enriches life through science. NOAA's mission is to understand and predict changes in the Earth's environment, from the depths of the ocean to the surface of the sun, and to conserve and manage coastal and marine resources.

http://www.noaa.gov/about-noaa.html

About International Year of Biodiversity

The United Nations declared 2010 to be the International Year of Biodiversity. It is a celebration of life on earth and of the value of biodiversity for our lives. The world is invited to take action in 2010 to safeguard the variety of life on earth: biodiversity.

http://www.cbd.int/2010/welcome/



"Turtles towards Extinction: How late are we? Is it too late?"

Contributed by:

Dr Tomomi Saito, Chief Officer of Turtle Breeding and Research Programme, Port of Nagoya Public Aquarium (Japan)

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In commemoration of the International Year of Biodiversity 2010, turtle experts from Japan's Port of Nagoya Public Aquarium (PNPA), US' National Oceanic and Atmospheric Administration (NOAA) and Underwater World Singapore (UWS) launched a Hawksbill Turtle Tag-and-Release project to study their migration pattern.

Hawksbill Turtle (*Eretmochelys imbricata*) is internationally acknowledged as an endangered species and listed as "critically endangered" in The Singapore Red Data Book. Found in shallow waters around coral reefs, hawksbills are marine turtles that feed mainly on sponges and crustaceans. Migration studies on hawksbills have been limited possibly due to the tendency for satellite tracking devices on these turtles to be dislodged when they forage for food in coral crevices.

PNPA has been successful in breeding loggerhead and hawksbill turtles for 16 years, counting more than 17,000 eggs and 8,700 hatchlings since 1995. With a turtle pool and an artificial beach equipped with highly sensitive cameras, PNPA was able to make important observations on the reproductive processes of sea turtles that would not be possible in the wild.

What was so unique about this project was that the hawksbills selected for the release were 2nd generation hawksbills born in PNPA of Japan from 1st generation hawksbills donated by UWS in the 1990s for PNPA's hawksbill breeding programme. In May 2010, Dr Tomomi Saito, Chief Officer of the PNPA Turtle Breeding and Research Programme and the Principal Investigator of this project, escorted thirteen 2nd generation hawksbills from Japan to UWS. From May to August 2010, UWS conditioned them for the natural habitat. A recercent trip to Singapore's islands was conducted by UWS to evaluate the conditions for turtle release. Big Sister's Island was selected for its sandy sloping beach and its proximity to open sea.

Days before the release, Dr George Balazs, Leader of NOAA's Marine Turtle Research Programme, and Mr Marc Rice, Director of Hawaii's Cooperative Sea Turtle Research Program, assisted PNPA and UWS with the fitting of satellite tracking devices onto eight 3-year-old hawksbills. Each tracking device would transmit data such as the turtle's location to a satellite, which would then beam the data to a ground station from which NOAA would prepare satellite maps tracing the journeys of the turtles.

Finally, the day has arrived and the hawksbills were ready to go, but not before turtle conservation issues were discussed at the multidisciplinary forum titled "Turtles towards Extinction" co-organised by UWS and the Raffles Museum of

Biodiversity Research (RMBR), and moderated by RMBR Director Professor Peter Ng. In answer to the question "Are we really too late?" from one of the forum participants, Dr Balazs said, "No, we're not too late and there is time to stop the turtles from dying out." He added that turtles have flourished in Australia, Hawaii and the Seychelles in recent years.

At 3₇: 15pm on 24 August 2010, thirteen 2nd generation hawksbills and five UWS adult hawksbills were released from Big Sister's Island amidst cheers from some 150 participants that included undergraduates and primary school students, who were invited by UWS to witness the event as part of the education outreach efforts. A new generation of young champions pledged their support for sea turtle conservation!

After months' of tracking, the preliminary results are available. Principal Investigator Dr Saito of PNPA explained that the objective of this research project is twofold: to clarify the migration routes of the juvenile hawksbills and to hopefully contribute to the recovery of hawksbill population in Singapore waters. Judging from the position data, the hawksbills have stayed near islands. Two of the eight hawksbills offered sufficient data for research analyses: Hawksbill 50147 travelled 2,635 km in 83 days to reach the final recorded position in open water near the Philippines; and Hawksbill 50150 logged a total of 58 days and 137 km before returning to the lagoon of Pulau Semakau of Singapore.

A search was launched by UWS to retrieve two of the transmitters that were sending signals from land. Relying on the coordinates from NOAA maps, Cathaerine Winata, a local associate, of UWS located the two transmitters: one was washed ashore Batam Island without the turtle; the other was found in a village in Rempang Island where the turtle hads died after getting entangled in a fishing net. The villagers on both islands of Indonesia were curious about the hawksbill conservation project.

In conclusion, Dr Saito commented that the data obtained from the eight hawksbills, while limited, was nevertheless valuable to research on the ecology of juvenile hawksbills and may lead to a better understanding of the local marine environment. The detours made by the hawksbills may imply a lack of food in the natural environment. Perhaps securing feeding stations around islands in the region and setting up marine sanctuaries may aid sea turtle conservation in Singapore and the region. Spreading sea turtle conservation messages to residents of the surrounding islands may help to engage them to play a part in protecting this endangered species.

Simple Things You can do to Make a Difference

- Practice 3 Rs Reduce, Reuse, Recycle to minimise our impact on the environment and protect all life on Earth
- Dispose of rubbish responsibly (eg. turtles and other marine life may die from eating discarded plastic bags mistaken as food)
- Learn more about marine turtles and their threats; spread the conservation message!

"Turtles towards Extinction: How late are we? Is it too late?"

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Days before the release, Dr George Balazs, Leader of NOAA's Marine Turtle Research Programme, and Mr Marc Rice, Director of Hawaii's Cooperative Sea Turtle Research Program, assisted PNPA and UWS with the fitting of satellite tracking devices onto eight 3-year-old hawksbills. Each tracking device would transmit data such as the turtle's location to a satellite, which would then beam the data to a ground station from which NOAA would prepare satellite maps tracing the journeys of the turtles.

Finally, the day arrived and the hawksbills were ready to go, but not before turtle conservation issues were discussed at the multidisciplinary forum titled "Turtles towards Extinction" co-organised by UWS and the Raffles Museum of

Biodiversity Research (RMBR), and moderated by RMBR Director Professor Peter Ng. In answer to the question "Are we really too late?" from one of the forum participants, Dr Balazs said, "No, we're not too late and there is time to stop the turtles from dying out." He added that turtles have flourished in Australia, Hawaii and the Seychelles in recent years.

At 3: 15pm on 24 August 2010, thirteen 2nd generation hawksbills and five UWS adult hawksbills were released from Big Sister's Island amidst cheers from some 150 participants that included undergraduates and primary school students, who were invited by UWS to witness the event as part of the education outreach efforts. A new generation of young champions pledged their support for sea turtle conservation!

After months' of tracking, the preliminary results are available. Principal Investigator Dr Saito of PNPA explained that the objective of this research project is twofold: to clarify the migration routes of the juvenile hawksbills and to hopefully contribute to the recovery of hawksbill population in Singapore waters. Judging from the position data, the hawksbills have stayed near islands. Two of the eight hawksbills offered sufficient data for research analyses: Hawksbill 50147 travelled 2,635 km in 83 days to reach the final recorded position in open water near the Philippines; and Hawksbill 50150 logged a total of 58 days and 137 km before returning to the lagoon of Pulau Semakau of Singapore.

A search was launched by UWS to retrieve two of the transmitters that were sending signals from land. Relying on the coordinates from NOAA maps, Catharine Winata, a local associate, of UWS located the two transmitters: one was washed ashore Batam Island without the turtle; the other was found in a village in Rempang Island where the turtle had died after getting entangled in a fishing net. The villagers on both islands of Indonesia were curious about the hawksbill conservation project.

In conclusion, Dr Saito commented that the data obtained from the eight hawksbills, while limited, was nevertheless valuable to research on the ecology of juvenile hawksbills and may lead to a better understanding of the local marine environment. The detours made by the hawksbills may imply a lack of food in the natural environment. Perhaps securing feeding stations around islands in the region and setting up marine sanctuaries may aid sea turtle conservation in Singapore and the region. Spreading sea turtle conservation messages to residents of the surrounding islands may help to engage them to play a part in protecting this endangered species.

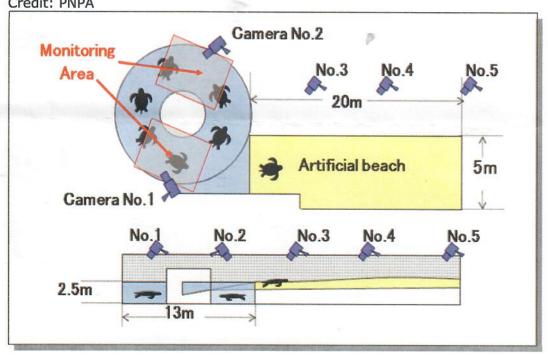
Simple Things You can do to Make a Difference

- Practice 3 Rs Reduce, Reuse, Recycle to minimise our impact on the environment and protect all life on Earth
- Dispose of rubbish responsibly (eg. turtles and other marine life may die from eating discarded plastic bags mistaken as food)
- Learn more about marine turtles and their threats; spread the conservation message!

(1) Caption: PNPA's Turtle Pool and Artificial beach with turtle tracks Credit: PNPA



(2) Caption: Layout of PNPA's Turtle Conservation Centre Credit: PNPA



(3) & (4) Caption: Hawksbills' reproductive behaviour recorded by PNPA: copulation (left) and oviposition (right)

Credit: PNPA





(5) Caption: Hawksbill eggs and hatchlings at PNPA Credit: PNPA





(6) Caption: Fitting the satellite tracking devices onto the hawksbills Credit: NOAA





(7) Caption: Primary school students from CHIJ (Kellock) learning about

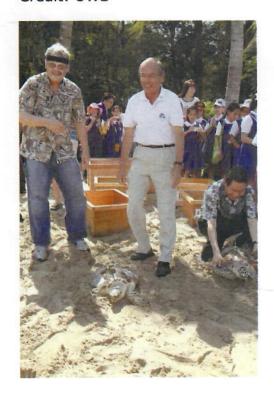
how satellite tracking works

Credit: UWS



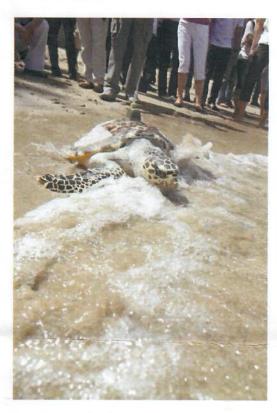
(8) Caption: Dr George Balazs of NOAA (left), Mr Makoto Soichi, Director of PNPA (Centre), and Professor Leo Tan of National University of Singapore and Honorary Member of UWS Educational Advisory Panel (right) were among the dignitaries invited to release the Hawksbills on 24 August 2010.

Credit: UWS



(9) Caption: Crowds cheered as the satellite-tagged hawksbill embarked

on its journey Credit: UWS



(10) Caption: All conservation efforts are borderless: Collaborators for 24 August 2010 Hawksbill Tag-and-Release project from Japan, US and

Singapore Credit: UWS



released by Underwater World Singapore from Palau Subar Laut (Big Sister's Island) 2010 movement of Port of Nagoya Public Aquarium hawksbill turtle, ID 50149 Released: 8/24/2010 TAM-2639 Days Transmitting:

Distance Traveled: (No data)



103.5 E

104 E

104.5 E

released by Underwater World Singapore from Palau Subar Laut (Big Sister's Island)

Days Transmitting: (1 day) TAM-2639 6/24 Released: 8/24/2010 2010 movement of Port of Nagoya Public Aquarium hawksbill turtle, ID 50153

Start Position
O Final Position D 50153, SCL 49,0 cm Bintan 104.5 E Pulan 50153 LCA O Semakai Pulan Sistance Traveled: (7 km INDONESIA ' > Singapore MALAYSIA Kundur Pulan Z 1.5 2.5

103.5 E

104 E

released by Underwater World Singapore from Palau Subar Laut (Big Sister's Island) 2010 movement of Port of Nagoya Public Aquarium hawksbill turtle, ID 50148 Released: 8/24/2010 TAM-2639 Days Transmitting:

公 Start Position O Final Position ID 50148, SCL 47.9 cm; Pulan 104,5 E INDONESIA " Pulan Batam 104 E Distance Traveled: Singapore MALAYSIA 103.5 E Kundur Pulan Z 1.5 Z

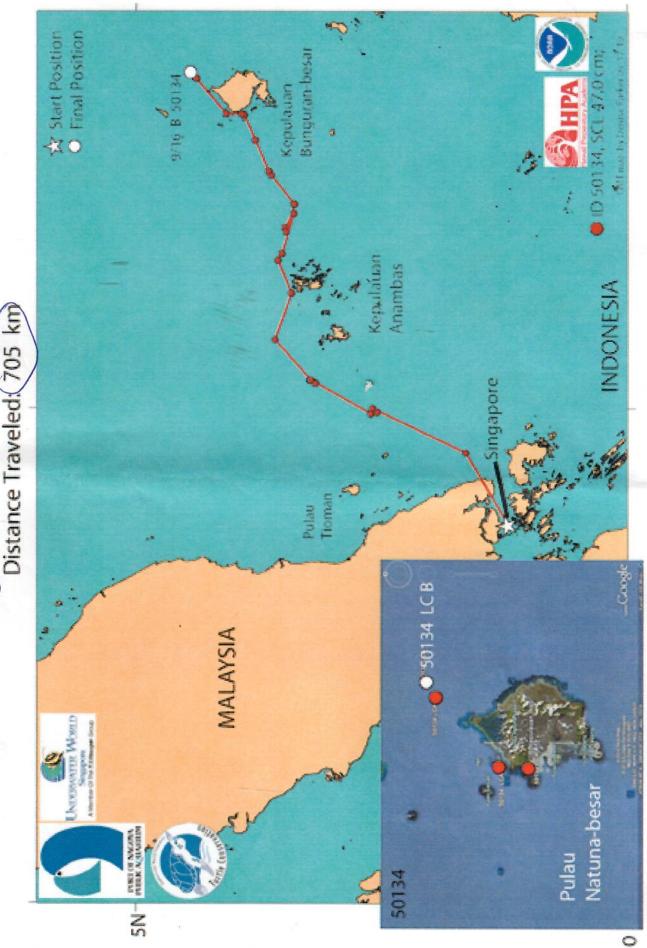
released by Underwater World Singapore from Palau Subar Laut (Big Sister's Island) 2010 movement of Port of Nagoya Public Aquarium hawksbill turtle, ID 50145 Released: 8/24/2010 TAM-2639 Days Transmitting:

14 Start Position O Firral Position Batam Pulan INDONESIA " > Distance Traveled: Transmitter found in industrial dumpsite by local workmen. Singapore Broken pieces recovered 10/14/10 by Catharine Winata. MALAYSIA Kundur Pulan Fate of turtle unknown. 1.5 N z

103.5 E

104 E

released by Underwater World Singapore from Palau Subar Laut (Big Sister's Island) 2010 movement of Port of Nagoya Public Aquarium hawksbill turtle, ID 50134 Released: 8/24/2010 TAM-2639 Days Transmitting: (23 days



105E

100E

released by Underwater World Singapore from Palau Subar Laut (Big Sister's Island)

Days Transmitting: 50 days TAM-2639 6/24 Released: 8/24/2010 2010 movement of Port of Nagoya Public Aquarium hawksbill turtle, ID 50143

Distance Traveled: (71 km)



Z

GMT map by Denise Parker 10/10/10

released by Underwater World Singapore from Palau Subar Laut (Big Sister's Island) 2010 movement of Port of Nagoya Public Aquarium hawksbill turtle, ID 50150 FINAL MAP:

ID 50150, SCL 48.0 cm; Released: 8/24/2010 104.5 E Pulan Pulau Semakau 137 km INDONESIA TAM-2639 Distance Traveled: 104 Singapore MALAYSIA Days Transmitting: 103.5 E Kundur Pullau 公 Start Position O Final Position Z

released by Underwater World Singapore from Palau Subar Laut (Big Sister's Island)

Days Transmitting: (83 plays TAM-2639 6/24 Released: 8/24/2010 2010 movement of Port of Nagoya Public Aquarium hawksbill turtle, ID 50147



| 2 | | | | | | | |
|------------------|--|----------|------------------------------|-----------|----------------------|-------------------|---|
| Date deployed | Deployment location | SCL (cm) | Final location | Date | Distance traveled | Transmitting days | Outcome |
| 24-Aug-10 | Big Sister Island, Singapore 1.214N 103.8353E | 47.0 | Last signal 4.45N 108.39E | 16-Sep-10 | 705 km | .23 | Last postion near Pulau Natuna-besar; outcome - unknown |
| 24-Aug-10 | Big Sister Island, Singapore 1.214N 103.8353E | 49.5 | Last signal 0.87N 104.23E | 13-Oct-10 | 71 km | 90 | Found dead in Kelong around 9/3/10 (net in fishing house), turtle discarded, transmitter retrieved on Pulau Rempang, 10/13/10 by Luckfi Nurcholis |
| 24-Aug-10 | Big Sister Island, Singapore 1.214N 103.8353E | 50.7 | Last signal 1.13N 103.92W | 12-Sep-10 | 12 km | 19 | Transmitter found on shore of Pulau Batam, transmitter was retrieved in pieces by Luckfi Nurcholis, as it was destroyed. |
| 24-Aug-10 | Big Sister Island, Singapore 1.214N 103.8353E | 51.0 | Last signal 9.39S 116.01E | 15-Nov-10 | 2635 km | 883 | Last position in open water near Philippines; outcome - unknown |
| 24-Aug-10 | Big Sister Island, Singapore 1.214N 103.8353E | 47.9 | Last signal 1.18N 103.78E | 27-Aug-10 | 20 km | 9 | Last position in open water near Pulau Kepaladjernin; outcome - unknown |
| 24-Aug-10 | Big Sister Island, Singapore 1.214N 103.8353E | 52.2 | NONE | NA | N/A | NONE | no data collected |
| 24-Aug-10 | Big Sister Island, Singapore 1.214N 103.8353E | 48.0 | Last signal 1.20S 103.77E | 21-Oct-10 | 137 km | 288 | Last postion in Lagoon of Pulau Semakau; outcome - unknown |
| 24-Aug-10 | Big Sister Island, Singapore 1.214N 103.8353E | 49.0 | Last signal 1.04N 103.81E | 24-Aug-10 | 7 km | - | Last postion near Pulau Semakau; outcome - unknown |

0 - 83 day 5 N= +

Prepared by Denise Parker 1/7/2011
Marine Turtle Research Program
Pacific Island Fisheries Science Center
2570 Dole Street , Honolulu, Hawaii 96822

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latest photos of our wild shores



2010 is International Year of Biodiversity



wild quotes

"In future, each nation will be defined by what it refuses to destroy." E. O. Wilson

labels

action admiralty anemone-hunt berlayar-creek beting-bemban-besar beting-bronok changi chek-jawa cyrene east-coast field-trips guiding hantu issues-aquaculture issues-aquarium Issues-bleaching issues-flaring issues-global

issues-local issues-marinelitter issues-oil-spill reclamation issues-sand jurong-island kranji kusu labrador lazarus lim-chu-kang mangroves mega-marine-survey mpa-notice newrecords **NEWS** other-shores pasir-

ris project-semakau-book punggol

Sea turtle release at Big Sisters: will they make it?

Yesterday I attended the release of captive bred hawksbill turtles at Big Sisters Island organised by Underwater World Singapore.



It was exciting to witness the release of these gentle creatures.

Before the release, there was a lively and interesting seminar about sea turtles and their fate. The Multidisciplinary Forum "Turtles Towards Extinction: How late are we? Is it too late?" was chaired by Professor Peter Ng, Director of the Raffles Museum of Biodiversity Research who highlighted how little we know about sea turtles. That is why this effort to track sea turtles by satellite will help us better understand and otect sea turtle

Multidisciplinary Forum Turtle towards Extinction: How Late Are We? Is It Too

The release involved thirteen hawskbill sea turtles that were born at the Port of Nagoya Public Aquarium in Japan. They were brought all the way to Singapore because their parents originally came from the Underwater World Singapore in 1997 and 2002. Eight of the turtles to be released were outfitted with satellite transmitters, believed to be the first captive bred turtles to be tagged.

During the seminar, Dr Tomomi Saito of the Port of Nagoya Public Aquarium shared more about the efforts at captive breeding at his facility. Their sea turtles there have an artificial beach where nesting takes place. There is a live webcam of what is going on!

recent comments

- · Glad I was able to share Changi with you, singlein,.. -Wednesday, September 08, 2010 - ria
- · WoW! Did not realise that Changi has so many under... - Wednesday, September 08, 2010 singleinsg
- Thank you for sharing such wonderful photos of the ... -Sunday, September 05, 2010 - Michelle MinderMassev
- · Well done, Ria, and all Chek Jawa volunteers! What... Tuesday, August 31, 2010 Joseph Lai Tuck Kwong
- Um...we made these in elementary school. If you ma... - Monday, August 30, 2010 - Anonymous

recent posts by shore friends

Raffles Museum treasures on Lazy Lizard's Tales



Raffles Treasures Abbott's leaf cricket

P14402821 Abbott's leaf cricket (*Phyllozelus abbotti*) Collected from Ulu Pandan, January 1992 *Native to Singapore* Orthoptera Species File Online...

The annotated budak

Coralarium IMG 4070] [image: IMG_4083] [image: IMG_4077] [Image: IMG_4065] [Image: IMG_4111] [image: IMG_4092] [image: IMG_4079] [image: IMG_4059] [image: IMG... 1 day ago



a visit to bulgh Determine d to make my

worth, I ventured out to Sungei Buloh Wetland Reserve on Sunday to shoot with the rented Canon EF 70-200 f/2.8 L IS II USM ... 1 day ago

ashira v3.0b Starting the work day with a smile! :D - raffles-lighthouse safety SCIENCE sekudu semakau sembawang sentosa sisters southern-Islands st-johns sultan-shoal sungei-buloh tanahmerah-tekong tuas ubin west-coast wildfacts-updates woodlands

archives

archives

latest posts

- Pasir Ris water quality fails, again: why?
- Pasir Ris beach is alive!
- Rare mangroves at Pasir Ris
- Surprises in the seagrass at Kusu Island
- How is coral bleaching at Kusu Island?

latest local shore issues

- Pasir Ris water quality fails, again: why?
- 7.5 million population: what it means for Chek Jawa and Ubin
- NEA comments on flaring at Bukom
- Underwater blasting next to Labrador shore continues until

latest field trips

- Pasir Ris water quality fails, again: why?
- Pasir Ris beach is alive!
- Rare mangroves at Pasir Ris
- Surprises in the seagrass at Kusu Island
- How is coral bleaching at Kusu Island?



When the eggs are dug up for artificial incubation, it's an opportunity to educate the public about sea turtles.



Kids can get a close look at sea turtles incubating and hatching. The aquarium is also involved in relocating eggs to natural shores and releasing hatchlings into the sea.



Turtle expert George Balazs from the US National Oceanic and Atmospheric Administration (NOAA) and long-time US turtle educator Marc Rice then shared more about how the sea turtles were tagged. Here's a photo of the sea turtles from Japan before they were tagged. friends/acquaintances ask me why I can "tahan" working on an island (no, they are NOT referring to Singapore) and despite the extra travel time (... 2 days ago

Psychedelic Nature



Cleaning up our reef site! -Raffles Lighthous e (Pulau Satumu)

has been a long-standing experimental site for every student in the Marine Biology Laboratory since the 1980st As of now,... 2 days ago

Show Al

recent posts on shore projects

teamseagrass



Dugongs in Australia at risk from toxic algae

that smothers seagrass Blue-green algae is threatening to smother the Western Australian seagrass beds that dugongs feed off. Vicki Laurie Australian Geographic 16 Sep 10; Photo ... 22 hours ago

Bleach Watch Singapore

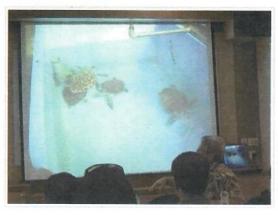
Singapore
Malaysian coral under
threat: AlJazeera video
clip - Al Jazeera's
Stephanie Scawen has
been investigating the
effects on Malaysta's
Tioman Island. Scientists
have said that the first
seven months of this
year ...
5 days ago

Mega Marine Survey of Singapore

More about the Mega Marine Survey - Here's a powerpoint presentation about the Mega Marine Survey, kindly shared by NParks... "Mega Marine Survey of Singapore" Find out more about the action ... 1 month ago

latest marine news

- Agencies finalising investigations into Singapore oil spill in May: Transport Minister
- Sulawesi police seize chemicals "enough to make 3 million fishing bombs"
- Why the Gulf Oil Spill Isn't Going Away
- Record Hot Summer Wreaks Havoc: Low Ice and Coral



The US experts share how the satellite transmitters are attached to the sea turtles. They share that recently, smaller transmitters are available thus allowing them to tag younger sea turtles.



The transmitter can only send a signal via its antenna to a satellite hundreds of kilometers in the sky when the turtle snatches a breath of air at the water surface. Thus special effort is made to protect the transmitter antenna from breaking off. The researchers expect the transmitter to work for six months if all goes well. Eventually, the transmitter will fall off as the turtle's scutes are naturally shed. It may drop off earlier if the sea turtle rubs its back against a reef.



Here's the team with a sea turtle outfitted with the satellite transmitter.

Bleaching

- Arctic sea ice shrinks to third lowest area on record
- Fishing could feed 20 million



oceans' 'tragedy

ornments ocean of the commons'

A pool too small for dolphins

upcoming shore events

- 9 Oct (Sat): Talk on "Pulau Ubin Shore is ALIVE!"
- 6 Oct (Wed): "Our Home, The Mangroves" with Cicada Tree Eco Place
- 26 Sep (Sun): Dive Pulau Hantu with the Hantu Bloggers



A closer look at the transmitter attached to one of the sea turtles from Japan. All the released sea turtles also had metal tags attached to the left front flipper (at the 'elbow'). The sea turtles were transported to Big Sister Island in boxes.



Attending the seminar today were Scouts who had volunteered for turtle and marine conservation work in Trengganu in Project Orion I (2009) and Project Orion II (2010). In the picture frames are thank you notes penned by the locals at the project site.



In addition to the eight turtles from Japan, Underwater World Singapore also released some sea turtles from their aquarium. These include five small turtles (30cm, about one-and-a-half years old), and five huge adult turtles - two males and three females who have been captive for 16 years. These lucky five were picked from "the 19 such turtles there for release due to their good health and chances of survival."

That sure is a lot of sea turtles to transport for release! So the Scouts lend helping hands to carry the sea turtles towards their final freedom.



At the ferry terminal we are joined by CHIJ Kellock girls who are fascinated by the sea turtles as they are carried one by one in their boxes to the ferry.



The sea turtles in boxes are ready for transfer into the big ferry



After lots of preparation and speeches, it was time to release the turtles! CHIJ Kellock girls have a closer look at the sea turtles with Dr Mohamad Maliki bin Osman, Parliamentary Secretary for National Development before their release.



Everyone crowds around for a last look at the sea turties before they splash away to freedom.



The huge turtles are a little disoriented upon their release and there's a bit of a turtle jam before they all head out into the water. Watching them hit the water, I realise sea turtles can swim very fast!



Will these awesome creatures survive in the wild?

As we head out for Big Sisters Island with the turtles, many of the threats facing them are obvious. There's massive works next to Sentosa for a huge pedestrian boardwalk. A sea turtle has been sighted at Marina at Keppel Bay which is just off Sentosa.



Just before boarding the ferry, a look at the reclamation and dredging going on for the massive Pasir Panjang Container Terminal reclamation project.



Behind the dredgers at Pasir Panjang, flaring on Pulau Bukom is very obvious. The huge flame emits black smoke and suggests incomplete combustion, like an oil spill from the sky?



The towering flame is almost as tall as the chimney! Sea turtles are regularly sighted at reefs near Pulau Bukom such as Pulau Semakau, Pulau Hantu and Cyrene Reef. Many of our Southern Islands are used for industrial purposes, and the waters are full of ships, parked or moving about.



Singapore is one of the world's busiest ports and many large ships pass by our wild islands, including Big Sisters. But sea turtles are found even on our reclaimed shores. Hatchlings have been sighted at East Coast Park!



Big Sisters Island lies just off the main business district on the mainland. Nevertheless, Big Sisters has among our best reefs! In fact, during our trip to this island about a month ago, we came across a wild hawksbill turtle having a nap in the lagoon! Another threat to sea turtles is coral bleaching which has affected reefs worldwide, including those in Singapore and at Big Sisters Island.



Other threats to sea turtles on our shores include abandoned driftnets that drown these air-breathers, and marine litter which the sea turtles mistake for their food. In Malaysia recently, the plight of sea turtles choking on bottle caps and other plastic rubbish was highlighted. A few days ago, a sea turtle died after it was severly injured by a boat in Tioman.

As we head home, Prof Leo Tan chats with the young ones about our shores. As always, he inspires with his delightful stories.



Let's hope the sea turties will live and prosper in the wild. And that there will be new generations of Singaporeans who care about our shores and the wildlife that live here.

Full media reports on the turtle release at Big Sisters Island on wildsingapore news. Video clip of Channel 8 story of the release on the Project Orion II blog.

Some sea turtle FAQs

What should I do if I see baby sea turtles on the beach?

Call the Police or NParks (Helpline number: 1800 4717300, or any other emergency number that you can see posted on signage in the park). They will then activate the Standard Operating Procedure to rescue them.

What should I do if I see sea turtles in our waters?

Send your valuable sighting to the online sighting report. In doubt, just send! This data will be shared with other vertebrate researchers and managers in Singapore. Highlights may be featured on Habitatnews from time to time (if the records are not confidential), e.g. http://tinyurl.com/habitatnews-mammal

More links

About sea turtles in Singapore: facts and sightings and links to more posts.

Global and local reports about sea turtles on wildsingapore news.

You might also like: 24 Aug (Tue): Sea turtle forum and tag and release at Big ... A quick look at Little Sisters bleaching not so bad LinkWithin SHARE SHARE LinkWithin

1 COMMENTS:

Tisu Girl said..

Oh my god! So envious of all who got the opportunity to help out and witness the release of these beautiful animals! Turtles

フェスティバル Ofuna Yume Kannon Asia Fes 第12回 协协観音》

つながる ひろがる アジアの ねがい

2010/9/4 (Sat) 11:00~21:00

500.- (includes contribution to the volunteer groups)

ステージ

第一部 12:45~

平削宣言 (ゆめ観音実行委員会) 来曾挨拶(鎌倉市長/神奈川県原爆被災者の会) Ka Male Hub Studo (ハワイ伝統舞踊) チョムロム・ナータシン タイ (タイ伝統舞踊)

加象花(江戸紙むの芸) P.U.R.E.Tokyo (中近東・インド・ジブシー舞踊etc)

無二部 15:30~

Suka Cta 2010 (バリ島のガムラン&舞躍) 区極単(構造由華経)

鎌倉市民踊協会 若木给

響調音 아시아의 축제 01 Cno Jong Nam Å प्रशिधा चाद

ナショナ TEL 0467-43-156 船觀音等 / 501 傳洞宗神奈 **瞬島市岡本 1-5-3** 鎌倉市・(社)神奈川県青少年協会 特活)も禁市RACTがながわ(タイ・ミャンマー・インド手工芸品) **JRL http://soto-zennet/yume** Peken Trading &Tours (スリランカ・バティック&フーズ) ゆめ観音実行委員会の SOTO禅インターナショナル (値加支援・海外寺院紹介) /有志ボラン '特活|ジュレー・ラダック (ラダック文化・料] Ohis チニーズ(スパイスとインドのお菓子) 各国各宗派(僧侶(散華荘厳·声明·万灯供養) MARISOL Bely Dance(ベリーダンス) JVJAB本ビジュアル・ジャーナリス 「TBET~失われた"天空の国"~」 ドタラ・カレッジ(チベット文化紹介) 大船観音寺 ンド政府観光局(文化・観光案内) 「平制の火」を広げるキャンドルナ 単VCジャパン(ZEN精進料理etc) スガヘ・ホルポリ(中東料理) サヤンドルナイド 18:30~ ベアナム人色(ベアナム粒理) 暇座アショカ(インドカレー 大船観音寺 (冷たい飲物) **ハカイテック (環境展示)** サナー(モンゴル紫蝉) ■出展・歌像 11:00~ 写真展示 工催 後援 協力

第23回

全国なぎさ

定員600名

午後1時~午後4時45分

- ◆一般の方もご自由にご参加ください。
- ◆会場は駐車場に限りがありますので、公共交通機関を利用してください。

この多様な自然を明日あいちのなぎさ





催》全国なぎさシンポジウムin愛知実行委員会

援)国土交通省、農林水産省、環境省、(財)河川環境管理財団、(社)全国海岸協会 賛)愛知県河川海岸協会、豊橋観光コンペンション協会、豊川市観光協会、浦郡市観光協会、田原市観光協会

《連携協力》生物多様性条約第10回締約国会議支援実行委員会

あいちのなぎさ この多様な自然を明日に残すために

全国なぎさシンポジウム

in愛知



プログラム

9月9日 豊橋市公会堂

12:30 受付開始

13:00 開会

13:05 開会県あいさつ 愛知県知事

13:10 開催地あいさつ 豊橋市長

13:15 基調講演 国土交通省河川局海岸室長

13:45 特別講演 九州大学 准教授 清野聡子 氏

14:15 活動報告 NPO法人 表浜ネットワーク代表 田中雄二氏

14:45 休憩

15:00 パネルディスカッション『愛知のなぎさ ~遠州灘から~』

コーディネーター 九州大学 准教授 清野聡子氏

パネリスト 豊橋技術科学大学 教授 青木伸一氏

NPO法人表浜ネットワーク代表 田中雄二氏

田原市文化財保護審議会委員 葉山茂生 氏

愛知県建設部河川課長 伊藤和久氏

16:35 次期開催県あいさつ

16:40 閉会あいさつ 愛知県建設部長

16:45 閉会

豊橋市公会堂

愛知県豊橋市八町通二丁目22番地 TEL0532-51-3077 市電/市役所前下車徒歩1分

※会場は駐車場に限りがありますので、公共交通機関を利用してください。



活動報告/パネリスト

NPO法人 表浜ネットワーク 代表

田中 雄二

昭和37年生まれ。特定非営利活動法 人表浜ネットワーク理事長を経て平成16年からNPO法人表浜ネット ワーク代表。

NPO法人表浜ネットワークでは浜名 湖以西から伊良湖までの遠州灘沿岸域(表浜海岸)が、自然環境や社会環境



の変化により存亡の危機へと追い込まれ、海岸の存続・維持の問題解決を迫られる中、表浜海岸に産卵に来るアカウミガメを環境問題の指標の一つと位置付け、表浜海岸と周辺環境の保全・修復・復元・再生に関する活動を始め、各地の個人、団体間の海浜および海洋の保護、保全等に関する知識や活動の情報交換や次世代につなぐ提言を行っている。

- ○特定非営利活動法人日本ウミガメ協議会理事
- ○日本自然保護協会自然観察指導員
- ○伊勢・三河湾流域ネットワーク会員
- ○生物多様性条約市民ネットワーク会員
 - NPO法人 表浜ネットワーク Webサイト http://www.omotehama.net/

特別講演/コーディネーター

『日本の海岸の生物多様性 -その運命の分かれ道を愛知から考える』

九州大学大学院

工学研究院環境都市部門 准教授

清野 聡子

物心ついた時には、海岸で貝を拾って 歩き、高校時代には海岸踏査を満喫。 海好き、映像・画好きが嵩じて、現在の 研究に到っている。東京大学農学部水 産学科卒業、同大学院農学系、総合文



化研究科で学ぶ。農学修士(水産学)、工学博士(土木工学)。専門は、海岸・沿岸・河川の環境保全学、底生生物学、地形工学、環境計画・政策学、海岸や水循環に関する雑学。特に干潟、河口域、砂浜の生物の生息地保全と再生が中心。土木学会デザイン賞グランプリ、日本海洋学会環境科学賞等受賞。

著書(共著)に、『川と海―流域圏の科学』(築地書館 共著)、 『水圏生物学入門』恒星社厚生閣、『市民参加による浅場の順応 的管理』恒星社厚生閣、『海辺に親しお》((山海堂)、『消えた砂



名古屋港記者クラブ会員 各位

(財) 名古屋みなと振興財団

名古屋港水族館 COP10 パートナーシップ事業 当館生まれのタイマイをシンガポールで放流しました

名古屋港水族館は、COP10パートナーシップ事業として、当館で繁殖した 13頭のタイマイを親の生まれ故郷であるシンガポールで放流を行いました。

今回の放流事業は、名古屋港水族館とアンダーウォーターワールド・シンガポール(水族館)、NOAA(アメリカ大気海洋気象局)の三者での共同研究として、タイマイに人工衛星追跡用の発信機並びに標識(タグ)を取り付け放流しました。

すでに発信機を装着した8頭のうち7頭からの電波を受信しており、その内の1 頭からは正確な位置情報を得ています。

ここで得られた回遊経路の追跡データは、今後当館ホームページで公表の予定です。

記

放流日時: 平成22年8月24日(火)午後3時15分(現地時間)

放 流 場 所:シンガポール ビッグ・シスターズ・アイランド

放流個体:名古屋港水族館 繁殖個体13頭(3歳8頭、1歳5頭)

内3歳8個体に発信機装着

アンダーウォーターワールド・シンガポール

飼育個体 5 頭 (成体)

放流参加者:・国土開発省大臣代理 マリキ・オスマン氏

・アンダーウォーターワールド・シンガポール関係者

・大学・博物館関係者

・NOAA 関係者

• 名古屋港水族館職員

・地元大学生、ボーイスカウト、小学生、その他約100名

※ タイマイ放流スケジュール等のデータは別紙のとおりです。

◆お問い合わせ◆ (財) 名古屋みなと振興財団 (名古屋港水族館) 企画調整課広報係 佐藤・大友 TEL 052-654-7134

タイマイ放流当日のスケジュール 平成22年8月24日 (火)

【現地時間】

10:00 ウミガメ保護に関するフォーラム開催

(アンダーウォーターワールド・シンガポール)

- ・水族館でのウミガメ繁殖 斉藤知己(名古屋港水族館)
- ・ウミガメの回遊に関する研究ジョージ・バラーズ氏 (NOAA)・マーク・ライス氏
- ・生物の輸出入と環境に関する法規 サイモン・タイ氏

オープンディスカッション

13:00 シンガポール ビッグ・シスターズ・アイランドへチャーター船にて 移動

14:30 タイマイ放流セレモニー開催 (ビッグ・シスターズ・アイランド)

> 国土開発省大臣代理マリキ・オスマン氏、名古屋港水族館祖一誠館 長ら挨拶、タイマイ放流主旨説明後、地元小学生とともに、タイマ イ18頭を砂浜より放流

タイマイ放流の様子



発信機を装着したタイマイ



タイマイ放流の様子





タイマイ 紹介

英名:Hawksbill turtle 学名:*Eretmochelys imbricata*

熱帯性のウミガメ (絶滅危惧種)で世界の熱帯・亜熱帯の海に広く分布し、その地域で産卵をしています。日本でも少数ですが、南西諸島での産卵が知られています。自然ではサンゴ礁に生育するカイメン類を主に食べています。甲羅はべっ甲細工の原料として古来より使用されてきました。当館では、屋内施設としては、世界で初めて1998年からこれまで5度(1998年・2003年・2005年・2007年・2009年)の産卵・ふ化に成功しています。

新加坡道教协会举办 Taoist Mission (Singapore) presents

二零一零庚寅年中元节法会 2010 FESTIVAL OF THE MIDDLE SEASON (ZHONG YUAN JIE FA HUI)

地点: 玉皇宫(原庆德楼)-新加坡国家古迹

Venue: YU HUANG GONG-Temple of Heavenly Jade Emperor (Former Keng Teck Whay Building)

Singapore's National Monument.

地址: 新加坡直落亚逸街一百五十号, 邮编 068608 Address: 150 Telok Ayer Street, S (068608)

太上阐玄微 道尊德贵 中元开法会 阳乐阴安

The Supreme Venerable Lord Tai Shang Lao Jun explains the mysterious and high,
Behold the Tao is worthy and its Virtue is precious
Rituals conducted during the Festival of Middle Season,
Bring joy to the Mortal Realm and appease the Netherworld.

1. 中元赦罪地官大帝圣诞庆贺道场。(每份 S\$30/- Per Pax) Feast Day of Heavenly Official of the Earth. 24/08/2010 Tuesday 农历七月十五,星期二 0900 hrs - 2200 hrs



法事科仪 Rites and Rituals

《庆贺科仪》Feast day celebration 《三官经》Scripture of Three Heavenly Officials 《三官朝科》Accordance to Three Heavenly Officials

青玄度亡道场 - 超度无祀孤魂。(每份 S\$30/- Per Pax)
 Salvation Rites for the wondering souls.
 28/08/2010 Saturday 农历七月十九,星期六 1700 hrs - 2200 hrs
 29/08/2010 Sunday 农历七月二十,星期天 0900 hrs - 2200 hrs

法事科仪 Rites and Rituals

《开坛科仪》Rites Open《福召科仪》Invitation

《摄召科仪》Invitation of Spirits

《安灵科仪》Settlement of Spirits

《救苦朝科》Accordance to Lord Tai Yi

《玄门晚课》Evening Rite

《祭孤科仪》Nourishing Rite 《送亡科仪》Sending off Spirits

《发车夫科仪》Dispatching of Coachmen

《化纸屋科仪》Burning of the Paper Houses



敬请留意来临活动:

Please kindly be aware of the following upcoming activities:

1. 中秋节 - 相聚玉皇宫

MID AUTUMN FESTIVAL CELEBRATION -

REUNION AT YU HUANG GONG

a. 农历八月十二(星期日) b. 农历八月十五(星期三) Sunday 19th September 2010, Wednesday 22nd September 2010

2. 九皇法会

FESTIVAL OF THE NINE EMPEROR

农历八月三十(星期四)至九月初九(星期六)

Thursday 7th October to Saturday 16th October 2010

新加坡遺敷協會

會 註: 新於城直集及选術一百五十號,即議063608 通訊度: 斯加坡或吉斯羅部或信箱288号, 如線916810 電 錄: (65)6295 6112土堤/6295 6113 傳幕: (65)6295 6119 電郵並: info@moism.org.sg 網址: http://www.tnoism.org.sg

Remarks .



TAOIST MISSION (SINGAPORE)

Registered Address: 150 Telok Ayer Street, Singapore 068608 Postal Address: Bukit Panjang P.O. Box 288, Singapore 916810 Tel: (65) 6295 6112-main / 6295 6113 Fax: (65) 6295 6119 e-mail: info@taoism.org.sg URL: http://www.taoism.org.sg

勿以善小無益而不爲 勿以恶小無損而爲之

二零一零庚寅年中元节法会 2010 FESTIVAL OF THE MIDDLE SEASON (ZHONG YUAN JIE FA HUI) 报名表格 Registration Form

| 1. 中元赦罪地官大帝圣诞庆贺道坛 | % . | | | | | | | | |
|--|---|----------|---------|--|--|--|--|--|--|
| Feast Day of Heavenly Official of | the Earth. | | S\$30/- | | | | | | |
| 2. 青玄度亡道场 - 超度无祀孤魂 | | | | | | | | | |
| Salvation Rites for the wondering souls. | | | | | | | | | |
| 3. 欢迎各界商翁施主赞助法会,赞助款额 | | | | | | | | | |
| For the sponsorship of the Festi | For the sponsorship of the Festival S\$ | | | | | | | | |
| 申请者资料 / Applicant Particulars: | | | | | | | | | |
| 姓名:Name of Applicant: | | | | | | | | | |
| 身份业/ 性别/ | 分址/ 生別/ 年齢/ 生肖/ | | | | | | | | |
| NRIC No: Gender: M / F | Gender: M/F Age:Chinese Horoscope: | | | | | | | | |
| 出生日期 (英历) 出生日期 (农历) | | | | | | | | | |
| NRIC No: Gender: M/F Age: Chinese Horoscope: 出生日期 (英历) 出生日期 (农历) D.O.B (Solar): D.O.B (Lunar): F机号码/ 体家号码/ | | | | | | | | | |
| DD / MM / YYYY / HOUR | /月/日/时 | | | | | | | | |
| | | | | | | | | | |
| H/P No: Home No: | Of | fice No: | | | | | | | |
| 电邮地址/ Email: | | | | | | | | | |
| 申请人生肖:本命属于: | | | | | | | | | |
| 北斗第一阳明贪狼太星君,宫下主照, | 子 (鼠)生人 | 禹之; | | | | | | | |
| 北斗第二阴精巨门元星君,宫下主照, | | | | | | | | | |
| 北斗第三真人录存贞星君,宫下主照,寅、戍 (虎、狗)生人属之; | | | | | | | | | |
| 北斗第四玄冥文曲纽星君,宫下主照,卯、酉(兔、鸡)生人属之; | | | | | | | | | |
| 北斗第五丹元廉贞罡星君,宫下主照,辰、申(龙、猴)生人属之; | | | | | | | | | |
| 北斗第六北极武曲纪星君,宫下主照, | | | | | | | | | |
| 上上上 北斗第七天冲破军关星君,宫下主照, | 午 (马)生人属 | 意之; | | | | | | | |
| 内部使用 OFFICIAL USE ONLY | | | | | | | | | |
| 收据号码 / 经手人/ 介绍人 / | | | | | | | | | |
| Receipt no: | Referral: | | | | | | | | |
| 备注 / | 总数 / | | | | | | | | |

Lianhe Zaobao www.zaobao.com

海龟放生大海盼能认祖归"海"

海洋学者将通过追踪仪器探测小海龟们的所在位置,从而了解它们被放生后,面对无容的大海做出代的选择,以供他的选择,以供他的选择研究。

黎远漪 报道

小海龟放生大海后,会游向何方?它们会比较"喜欢"回到自己的出生地繁衍下一代,还是回到印象更为鲜明的放生地?

这个问题至今没有明确的答案。其实对于某些海龟品种的许多习性,学者也不太清楚。而这正是新加坡海底世界昨日与日本名古屋港水族馆,及美国国家海洋与美国国家海洋与大气管理局(National Oceanic and Atmospheric Administration,简称NOAA)合作,为配合"国际生物多样性年"在昨日启动2010年保护海龟行动,希望寻找的主要答案。

这次在姐妹岛放生的18只 海龟,都属于《新加坡红色资料 书》中列为极度源危的玳瑁海龟 (Hawksbill Turtle)。

它们之中包括了五只一岁及 八只三岁,相等于人类小学生年 龄的玳瑁海龟。这些小海龟虽然 在日本出生,但它们其实是我国 海底世界于1997年捐赠给名古 屋港水族馆五只玳瑁海龟的第二



圣婴女校(客乐)的学生昨日到姐妹岛,协助18只玳瑁海龟回归 大海。(海峡时报照片)

代人工养殖玳瑁海龟。

名古屋水族馆三个月前,把 这13只小海龟千里迢迢运来本地 并在此放生,让这群"日本籍" 小海龟能够认祖归"海"。其 中,八只三岁大的小海龟背上都 装有卫星追踪仪器,而仪器上突 出的天线也被一层玻璃纤维包裹 着,以防海龟在海中与石头撞击时造成损坏。

NOAA将能通过追踪仪器探测小海龟们的所在位置,从而了解它们被放生后,面对无穷无尽的大海做出什么样的选择,以供学者进行玳瑁海龟洄游路线研究。

名古屋港水族馆海龟繁衍及研究计划主要负责人齐藤知已(Tomomi Saito)表示,通过了解海龟的洄游习性将有助于为玳瑁海龟创造良好的繁衍环境,适合它们大量繁衍下一代,为保护玳瑁海龟尽一份力。

在放生玳瑁海龟时,有些海龟在沙滩上徘徊,迟迟不肯下海,是害怕还是兴奋的表现,我们不得而知。这些玳瑁海龟多野生环境下顺利存活,新加坡海底世界总监张剑豪表示乐观。他说,在放生之前,海底世界已经让这些玳瑁海龟在模拟的野生环境冲适应了一段时间,再加上玳瑁海龟本身就是适应力较强的龟类,因此大家并不需太过担忧。

至于卫星追踪究竟能持续 多久,NOAA的生物研究学家白 乐日(George Balazs)博士认 为,小海龟在茫茫大海中可能面 对的任何状况,再加上随着它们 体积增大而导致的脱壳现象,都 将使到追踪器脱落,他们预计大 概可收到6个月的卫星传输。

除了这13只 "日本籍"的 小海龟以外,海底世界也将五只 (三雌两雄),15年前被人非法 偷运至我国的成年玳瑁海龟,在 国家发展部政务次长孟理齐博士 的带领下放归我国海域。

这五只成年玳瑁海龟,及那五只一岁大的"日本籍"玳瑁海龟背上虽未安置卫星追踪仪器,但它们的脚蹼(flipper)上都安有身份标签,若公众在任何地方发现这些海龟的踪迹,都可通知我国海底世界或名古屋港水族馆。

18大版/售价80 ¢ 庚寅年七月十六

前艺人涉嫌骗取善款案

慈曾 光表 协赛 会售 负票 责所 人得 指将 林归 益协 盛会

谢婷婷 报道

涉嫌骗取善款的前 电视艺人林益盛在三年前 举办足球慈善赛前,曾向 慈光福利协会负责人表 明,球赛的售票所得将归 协会。

协会的女经理黄淑萍 (42岁)昨天在庭上供 称,这是双方的口头协 黄淑萍说,2007 筹集的善款, 年6月20日她到林益盛 回复,过后, 开办的"名人俱乐部" 失去联系。 (Celebrities Resort Club)办公室首次开会 淑萍接到商, 时,林益盛表示会在7月 力的电话,请 18日于惹兰勿刹体育场 协会有否收置 举行"2007港新艺人足 示只收到共 球慈善赛",要求慈光福 得问她是否

她说,每张10元的票价是由林益盛定下的。 当时,林益盛表示会印6000张票,他要留500张 给赞助人。

利协会 (Metta Welfare

Association)帮忙售票

以及设计票根和海报。

过后,黄淑萍再次到 林益盛的办公室开了一次 会,主要讨论物流事务。 林益盛要求协会提供义工 充当带位员,黄淑萍应 允。

她在李良媚副检察司引导下供称,对方送来大约1000张票,协会总共卖掉241张,并把711张送给义工。

事后,协会从卖票中获得2410元,另外还收到男子符莫振直接开一张志银2000元支票给慈光福利协会,因此协会共得4410元。

黄淑萍表示,并不清 楚林益盛那方面卖了多少 张票,因为对方没有通知 协会。她还说,虽然协会 负责设计票根,但赞助商 标志由名人俱乐部提供, 协会没有联络赞助商。

她最后一次与林益 盛通电话是在2008年1月 24日,当天她追问善款 总额,林益盛表示还在结 算,一旦完成便会通知 她。

放下电话后,黄淑萍 还发电邮给林益盛,要求 筹集的善款,但对方没有 回复,过后她便与林益盛 失去联系。

局昨天举

安州中兴雪太 邻 里 黎 目

客学動衣,器以锦追星工下禁土背 字瓣下树同,况青的身套些必会中

2008年2月10日,黄淑萍接到商人彼得·白康力的电话,询问慈光福利协会有否收到善款。她表示只收到共4410元。彼得问她是否知道他和朋友为协会筹得不少义款,黄淑萍表示不知情。她在得知这个消息后,便通知慈光福利协会管委会。

根据较早前的报道, 彼得和他的朋友过后陆续 报警。

林益盛原本在前天审讯第一天自行抗辩,昨天他临时聘请到律师威渣耶(Wijaya),但仍然自行作笔记。

律师盘问黄淑萍时指 出,足球慈善赛举行当天 只有约几百人出席,隔天 名人俱乐部还举行了一场 高尔夫球赛,目的是要筹 集赞助费以抵偿开销。

黄淑萍说,她知道隔 天有高尔夫球赛,但不知 道是要筹钱抵偿开销。

林益盛共面对三项欺骗罪,指他在2007年3月至6月之间,以名人控股有限公司的名义筹款举办慈善赛,谎称在扣除活动开销后,将把剩余事款交给慈光福利协会。

控状指他向沈振松以 及唐庆文分别骗取了5万 元和1万元款项,另一名 受骗者白康力还向7人募 款,把总额20万5000元 的捐款交给林益盛。

参与慈善赛的本地及 香港艺人包括郑各评、林 益盛、陈天文、谭咏麟、 陈百祥、曾志伟等。

案件今天续审。(部 分人名译音) 发六營 全是一名23: 作代[6科案科

,稱了器 ,計工 上在子 。 私卒

民育靠还时兰土革的主共中 。雅一下不踏人两,人一

立和る晚餐班主共中主率 山鄉電店的会夏大因邵寺古 行路士各史針(IIII) 社会上路 (Claymore Hill) 東京、書面、 管面等一瓜市, 市工商工。 對风镜被物本击中。 出版。 上級已五號下異字一匹读下

路节乌从皰豹天和干果各一 醉一中击,不望於辛刳夏大刃邵 。命务於芒,此菸再司辛於近路

夏禄车亭千果

月8辛0102 弥早合旅 同様耿때様 OF

新加坡最信赖的保安伙伴

户或吉时 :项优惠。

田 1奉《老子》一书为《道德经》, 作为教内的主要经典, 并相 1发源很早,始源於黄帝,有四千七百余年的历史,而道教的 扬於春秋时期的老子(道祖), 成教於东汉末年的张道陵天师。 :中华民族国有的宗教, 以学道、修道、行道为主要宗旨。 、的基本信仰是以「道」为根本,所以称为「道教」 2数的派别众多,但裁义上都以「道」为宗旨。 过修炼,可以长生成仙。

aoism?

o learn the "Dao", cultivate the "Dao", and practise the "Dao". As s the indigenous religion of the Chinese. The key purpose of the ntral to the belief of this faith, the religion is called "Daoism" or

as existed since the time of the Yellow Emperor some 4700 years ted by Lao Tzu during the Spring and Autumn Period, it was s a religious movement during the later years of the Eastern Han Celestial Master Zhang Daoling. c of Dao and its Virtue (Dao De Jing), regarded as the main text of blishes that one can attain immortality through self-cultivation.

there are many Taoist sects today, their teachings are all based on s of "Dao".

是指人所走的路,从它的原意又引伸出规则、规矩等含义。好 之间的运行,有一定的常规,这就是所谓「天道

、恒存在的,也是世界的本源,它就在我们周围,无所不在 不见的, 听不见的, 摸它不到的。

说,道的化身就是神灵,具有神性。它本来是无形无象的气,来便是神。在道教中,老子就是这样气聚而成神。人"够造过 得道,最终也可成神。人修炼成道,称为仙或神仙。

Dao"?

riginally refers to the "way" or the "path" taken by the Taoist also follow a set of rules and order, and that is how the concept of ver time the meaning has expanded to incorporate rules and as well. The movement and changes between Heaven and Earth, it Dao", or the "Heavenly Way"was developed.

r eternal and interminable element, is considered the life-force of which surrounds us all the time, regardless of time and distance,

g to Taoist belief, deities are the manifestations of "Dao", and they annot be seen, heard, or touched.

reated by the formless vapour of "Dao". In Taoism, one can attain mmortality) through cultivating and practising the "Dao".

lished by



新加坡道教总会青年团

eration (Singapore) North Avenue 4, Singapore

道教总会

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242 2115

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Tel: (65) 6242 2115 Faz. (65) 6242 1127
Website: www.taoistyouth.ag
E-mail: admin@taoistyouth.ag

道教徒如何上香叩拜?

面对圣像前,右手手指拈香,左手指包著右手指(A1)。上 香时, 用右手拉紧左手袍袖口, 始用左手把香插上香炉内(A2), 并默念香咒「心香常焚得大清静」

拱手礼(手抱太极):

两手相抱,举胸前,立而不俯。拱手礼赤称抱拳礼(B1)。 作辑礼:

自下而上(B3)。 一面躬身, 一面双手干腹前合抱, 距2-3寸(B2)。 00

站在跪垫(拜垫)前,双脚站成「八」字形,两脚跟相

 Ξ

两膝下跪(B4),紧接着,左手离开心口,按右手背上 右手离开, 左手捂心, 同时从容俯身, 右手按跪垫, (B5)。继而俯伏叩首,并默念圣号















How do Taoists offer incense and pay respect?

Offering incense sticks (joss-sticks):

Facing the sacred image of the deity, hold the joss-sticks with the right hand in front of the chest (heart), and place the left han I over the right hand (fig. A1). When offering incense, the right hand should cover the left sleeve of one's attire, Place the joss-sticks in the incense burner with the left hand. Silently recite the spell for offering incense.

The gesture of "Embracing the Supreme Ultimate (tai-ji)".

Cover the right fist with the left hand, and bring both hands up to chest-level (fig. B1).

Prostration and paying homage to the deities:

(1) Stand behind the cushion, with toes pointing outwards at a distance of 2-3 inches between the heels (fig. B2)

(2) When bowing, join and raise both hands up to the chest (fig.

(3) Withdraw the right hand and place the left hand on the heart when kneeling, and put the right hand on the cushion to support the body. Kneel steadily (fig. B4), before placing the left hand on the back of the right hand (fig. B5), and bow. Recite the sacred name of the deity sincerely.







新加坡道教总会简介

0坡道教总会成立于1990年,为我国一些道教界知 (道教信徒共同发起组织, 成为新加坡唯一全国性 1体。1989年6月向社团注册局申请注册,1990年 同年3月11日, 在裕麻东通淮庙的临时会所 "成立"新加坡道教总会"并举行第一届理事会就职 1事会成员是由宫庙会员推选组织而成。 批准。

的关爱和社会各界的积极支持,加上历届理事会 、懈努力, 会务蒸蒸日上。在宣弘道教, 配合政府 (和谐准则, 服务社区, 造福人群, 促进国际间的 002年至今,陈添来会长开始接下领导棒子,

道教文化交流等方面都做了大量的 工作。并于2005年编辑、出版《狮 化的层面、理论的高度进一步了解 它的面 城道教》季刊,旨在为国人能从文 世,填补了我国道教界的一个空台, 为道教文化的园地增添了一株幼苗。 和认识道数打开一个窗口。

教总会为凝结道教信仰的全国性的道教团体,成 -来参加道教总会的宫庙会员有73间,对坛会员有 近期成立的新加坡道教总会青年团也获得踊跃的 ,们相信,这株幼苗在众人培植下必定能茁壮成长, 教文化绽开花朵, 缔造累累硕果!

加强及鼓励新加坡各道数团体及道数信仰者彼此 办或资助教育文化,社会及其他活动。以提高公 .更好与更密切的关系,协调、合作及了解 一对道教的认识

与民间促进本会与其他组织间的了解及合作。 助或从事有关道教文化及传统的研究。

与福利服 参与或协

于促进上 ,或其中 旨的活动 切其他符

OGYAKARTA EARTHQUAKE RELEF PRAYER

Taoist Federation (Singapore)

The Taoist Federation was established in 1990 by a group of national-level Taoist organisation in Singapore. The group applied to the Registry of Societies to set up the Taoist Federation in June 1989, and it was approved as a registered society (registration number: ROS 0261/1989) with the Registry of Societies on 2nd February 1990. The Taoist Federation (Singapore) announced the formal establishment of the society and held its first executive committee inauguration at Tong Whye Temple in Jurong East on 3rd November 1990. The Taoist Federation sets out to unite Taoist distinguished Taoist practitioners and believers, and it is the only temples in Singapore and aspires to set a good example for the other organizations to emulate.

Taoist culture month, organizing seminars on Taoist and traditional The Taoist Federation is devoted to promoting Taoist culture in the development of these temples. The Federation, cognizant of the Singapore, initiated many activities to that end such as holding a Singapore, to foster cooperation among temples and also support desideratum to unite Taoist temples and boost Taoism in Chinese culture, curating a Taoist relics exhibition, etc. The Federation conducted exchanges with many overseas Taoist organizations as well.



guidelines on ethnic activities at the The Taoist Federation works closely with the government to address issues and provide Federation, as the main Taoist body The grass-roots level. national

The Federation will continue to foster ethnic and religious ander its umbrella. It also set up a Youth Group recently, an miative which drew enthusiastic response from younger members. narmony, hold exchange programmes with local and overseas Taoist Temples and 108 Taoist altars Faoist organizations, invite young Taoists to participate in Taoist cultural activities, set up a Taoist Library to widen the knowledge of members and collect relevant materials for research and studies, to become a hub in propagating and promoting Taoism Singapore, brought 73 Singapore.

cearning from the past and looking ahead towards the future, we hope to make appropriate reforms and innovations not only to enhance the image of Taoism, but also to meet the new challenges of the 21st century. The road ahead for the Taoist Federation is a ong, rugged and difficult one, but we strongly believe we will be thle to make headway and champion Taoism in Singapore!



Faoist Federation Youth Group 新加坡道教总会青年团

为继承发扬华族传统文化及道教文化,新加坡道教总会陈 添来会长在2005年《狮城道教》第四期的季刊,发表了一封倡 议书,呼吁宫庙会员的年轻子女对道教及道学有兴趣者踊跃加 入新加坡道教总会青年团。

经过一年的筹备工作后,前加坡道教总青年团已经正式成道教青年团由一群热爱道教的年轻人组织而成,宗旨是: 小

- 弘扬道教文化
- 定期组织活动
- •培养人材及领袖
 - 为社会做出贡献 • 推广宗教和谐

道教青年团将主办一系



To further promote Chinese and Taoist culture, Mr Tan Thiam Lye PBM, president of the Taoist Federation (Singapore), appealed for young Taoist devotees to join the Federation in our last issue of Faoist News magazine in 2005.

After a year of preparation, the youth group was formed by a group of young Taoists who shown keen interest in Taoism. They laid five main objectives of the youth group:

- · To promote Taoist Culture
- · To organise frequent activities
- · To develop youth Taoist leaders
 - · To promote religious harmony
- · To engage in community service



The Youth Group will continue to organise classes, such as many other exciting activities. We hope that temples can encourage Chinese calligraphy class, Taoist basic understanding class, and their young followers, and parents to encourage their children to join us to learn more about our faith. Together, we can preserve and glorify our rich Taoist and Chinese Culture!

For any inquires, kindly contact us at 6242 2115.



Join Us Today! 我想认识道教

Email: admin@taoistyouth.sg Website: www.taoistyouth.sg 新着! 海の生き物レター

水族館生まれのタイマイ





8月24日、名古屋港水族館で生まれた3歳と1歳のタイマイの子ガメ13頭をシンガポールのビック・シスターズ島から無事放流しました。これは、子ガメたちを親ガメの故郷であるシンガポールの海へ戻したいとの私たちの強い思いから実施された、現地の水族館アンダーウォーターワールド・シンガポールとNOAA(米国大気海洋気象局)との共同プロジェクトです。子ガメたちは、研究者、学生、保護団体、マスコミなど約150名もの関係者に見送られてシンガポールの海に姿を消していきました。



タイマイ Eretmochelys imbricata の放流

8頭のタイマイにはトランスミッター(送信機)を取り付けました。 早くも、刻々と位置情報が送られてきています。



シンガポール周辺のサンゴ礁の海で元気に育つことを願っています。

Release of captive bred Hawksbill turtle at Big Sister's Island

Posted on 26 August 2010 | Leave a comment

Raffles Museum of Biodiversity Research was invited to be part of a turtle release event organised by Underwater World Singapore (UWS), in collaboration with the Port of Nagoya Public Aquarium (PNPA) of Japan and National Oceanic and Atmospheric Administration (NOAA) of USA on 24 August 2010. Thirteen second-generation Hawksbill Turtles (Eretmochelys imbricata) (eight three-yr-old turtles and five one-yr-old turtles) were released off Singapore's Big Sister's Islands (Pulau Subar Laut) as part of an effort to study the migratory behaviour of this endangered species of turtles using satellite tracking devices. This is the third time that UWS is releasing sea turtles fitted with satellite tracking devices back into their natural habitat, with previous releases in 2002 and 2006.

In the morning, a Multidisciplinary Forum titled "Turtles Towards Extinction: How late are we? Is it too late?" to facilitate cross-disciplinary discussions among scientists, students and conservation groups was convened and moderated by the Director of RMBR, Professor Peter Ng. Members of the panel included Dr Tomomi Saito, Chief Officer of the Turtle Breeding and Research Programme at PNPA; Dr George Balazs, Leader of NOAA's Marine Turtle Research Program; Mr Marc Rice, Director of Hawaii's Cooperative Sea Turtle Research Program; Assoc Professor Simon Tay, Chairman of the Singapore Institute of International Affairs who specialises in international law and public policy; Professor Leo Tan of NUS and Honorary Member of UWS Educational Advisory Panel; and Mr Anthony Chang, Curator of UWS.



(Image courtesy of Ria Tan)

The turtles released were born in Japan from first-

generation turtles that were donated by UWS to PNPA in 1997 and 2002. Satellite tracking devices were fitted on these turtles with the expertise and technical support from the National Oceanic and Atmospheric Administration (NOAA) of USA. Details and preliminary results of this collaborative project will be shared at the COP 10 (Tenth Meeting of the Convention of the Parties governing the United Nations Convention of Biological Diversity) the Partnership Project — the Kyoto University International Symposium — Biodiversity, Zoos and Aquariums in September 2010.



(Image courtesy of Jun Lin)

Gracing this turtle release event was guest-of-honour Dr Mohamad Maliki Bin Osman, Parliamentary Secretary of Ministry of National Development. Along with UWS' conservation education programme, over 100 guests were present to witness the release. These include some 20 students from CHIJ (Kellock), students from the National University of Singapore, as well as members of PadiAware, Scouts, and Wild Singapore. Prof Ng helped release a turtle with Mr Marc Rice.



(Image courtesy of Ria Tan)

Prof Ng was also interviewed by the Channel 8 news crew on the significance of this turtle release event.

At the jetty, Prof Leo Tan took the opportunity to interact with the students from CHIJ (Kellock), telling them that the turtles might return, perhaps in 20 to 30 years' time to lay eggs, and they will hopefully be in Singapore to witness this event. The students took the opportunity to have a photo taken with Prof Tan before boarding the ferry to travel back to the mainland.



(Image courtesy of Ria Tan) By Tan Swee Hee

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Speeches

SPEECH BY DR MOHAMAD MALIKI BIN OSMAN, PARLIAMENTARY SECRETARY FOR NATIONAL DEVELOPMENT, AT THE HAWKSBILL TURTLE TAG AND RELEASE ON 24 AUGUST AT 3.05PM, BIG SISTER'S ISLAND

Mr Chng Hwee Hong, Executive Director, Haw Par Corporation and Deputy Chairman, Underwater World Singapore,

Distinguished guests,

Ladies and Gentlemen,

Students and Teachers,

- 1 Good afternoon. I am happy to join you today at Big Sister's Island for the Hawksbill Turtle Tag and Release event. I note that the event, hosted by the Underwater World Singapore, has been organised in commemoration of the International Year of Biodiversity.
- The United Nations has declared 2010 as the International Year of Biodiversity. It is a celebration of the variety of life on Earth and of the value of biodiversity for our lives. As we learn to appreciate the wonders of nature, it is important that we also understand that everyone is dependent on nature and the natural ecosystems that support biodiversity. It is important that all parties come together to share their knowledge and experience on how best to safeguard the Earth's biodiversity.
- 3 Singapore, despite being a small country with competing needs for limited resources, has strived to balance economic development and biodiversity conservation. We are also committed to contributing to biodiversity conservation at the international level. In fact, Singapore is working with the Convention on Biological Diversity (or CBD) Secretariat on developing the CBD-led Cities' Biodiversity Index. This is being done in partnership with the Global Partnership on Cities and Biodiversity¹. There is currently a lack of self-assessment tools that cities can use in measuring their conservation efforts. The Cities' Biodiversity Index will hence go towards helping cities benchmark their biodiversity conservation efforts over time.
- 4 I would like to applaud the joint collaborative effort of Underwater World Singapore (UWS), the Port of Nagoya Public Aquarium of Japan (PNPA), and the National Oceanic and Atmospheric Administration of USA (NOAA) to conserve the Hawksbill turtle. This species of turtle is internationally acknowledged as endangered and is listed as "critically endangered" in *The Singapore Red Data Book* a source of reference for conservation plans and efforts of various governmental and non-governmental organisations published by Nature Society, Singapore.
- 5 I understand that satellite-tracking devices will be fitted on the turtles that will be released today to study their migratory behaviour, and the results would be shared at various international scientific forums this year. This study will help us to better understand the behaviour of Hawksbill turtles and improve turtle conservation efforts.
- I am pleased to see that students and forum participants from this morning's multidisciplinary forum on turtle conservation have joined us for the turtle release. With concerted and coordinated efforts by scientists, and the passionate support of individuals like you, our biodiversity conservation efforts will continue to be strengthened. If we work hard today, our children and grandchildren will also get their chance to enjoy the richness of nature that we today enjoy. Thank you.

¹ The Global Partnership on Cities and Biodiversity was launched at the IUCN (International Union for Conservation of Nature) Congress in 2007. It is a network of UN agencies, international organizations, including ICLEI (International Council for Local Environmental Initiatives) and IUCN, and local governments that aims to improve the management and conservation of biodiversity through technical cooperation, capacity building projects and communication campaigns.

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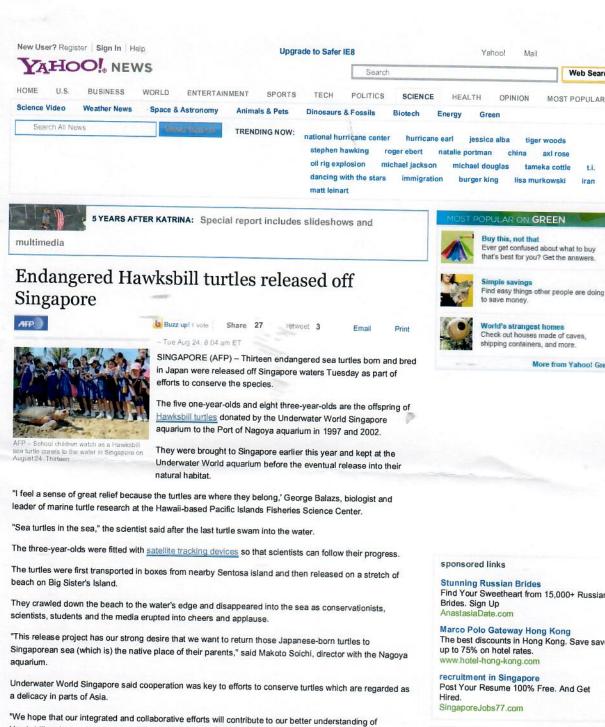


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Hawksbill turtle behaviour and improve turtle conservation efforts," said Peter chew, deputy general

Turtle soup is a delicacy in parts of Asia and turtle shells are crushed into powder for use in a jelly dessert.

The Hawksbill shell is also used to make products like combs, ornamental hairpins and glasses frames.

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manager of the Singapore aquarium.

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海洋学者将通过追踪仪器探测小海龟们的所在位置,从而了解它们被放生后,面对它们被放生后,面对无穷无尽的大海做出什么样的选择,以供他们进行玳瑁海龟洄游路线研究。

黎远漪 报道

小海龟放生大海后,会游向何方?它们会比较"喜欢"回到自己的出生地繁衍下一代,还是回到印象更为鲜明的放生地?

这个问题至今没有明确的答案。其实对于某些海龟品种的许多习性,学者也不太清楚。而这正是新加坡海底世界昨日与日本名古屋港水族馆,及美国国家海洋与美国国家海洋与大气管理局(National Oceanic and Atmospheric Administration,简称NOAA)合作,为配合"国际生物多样性年"在昨日启动2010年保护海龟行动,希望寻找的主要答案。

这次在姐妹岛放生的18只海龟,都属于《新加坡红色资料书》中列为极度濒危的玳瑁海龟(Hawksbill Turtle)。

它们之中包括了五只一岁及 八只三岁,相等于人类小学生年 龄的玳瑁海龟。这些小海龟虽然 在日本出生,但它们其实是我国 海底世界于1997年捐赠给名古 屋港水族馆五只玳瑁海龟的第二



圣婴女校(客乐)的学生昨日到姐妹岛,协助18只玳瑁海龟回归大海。(海峡时报照片)

代人工养殖玳瑁海龟。

名古屋水族馆三个月前,把 这13只小海龟千里迢迢运来本地 并在此放生,让这群"日本籍" 小海龟能够认祖归"海"。其 中,八只三岁大的小海龟背上都 装有卫星追踪仪器,而仪器上突 出的天线也被一层玻璃纤维包裹 着,以防海龟在海中与石头撞击时造成损坏。

NOAA将能通过追踪仪器探测小海龟们的所在位置,从而了解它们被放生后,面对无穷无尽的大海做出什么样的选择,以供学者进行玳瑁海龟洄游路线研究。

名古屋港水族馆海龟繁衍及研究计划主要负责人齐藤知已(Tomomi Saito)表示,通过了解海龟的洄游习性将有助于为玳瑁海龟创造良好的繁衍环境,适合它们大量繁衍下一代,为保护玳瑁海龟尽一份力。

在放生玳瑁海龟时,有些海龟在沙滩上徘徊,迟迟不肯下海,是害怕还是兴奋的表现,我们不得而知。这些玳瑁海龟多属于人工养殖,它们是否能在野生环境下顺利存活,新加坡海底世界总监张剑豪表示乐观。他说,在放生之前,海底世界已经让这些玳瑁海龟在模拟的野生环境中适应了一段时间,再加上玳瑁海龟本身就是适应力较强的龟类,因此大家并不需太过担忧。

至于卫星追踪究竟能持续 多久,NOAA的生物研究学家白 乐日(George Balazs)博士认 为,小海龟在茫茫大海中可能面 对的任何状况,再加上随着它们 体积增大而导致的脱壳现象,都 将使到追踪器脱落,他们预计大 概可收到6个月的卫星传输。

除了这13只"日本籍"的 小海龟以外,海底世界也将五只 (三雌两雄),15年前被人非法 偷运至我国的成年玳瑁海龟,在 国家发展部政务次长孟理齐博士 的带领下放归我国海域。

这五只成年玳瑁海龟,及那五只一岁大的"日本籍"玳瑁海龟背上虽未安置卫星追踪仪器,但它们的脚蹼(flipper)上都安有身份标签,若公众在任何地方发现这些海龟的踪迹,都可通知我国海底世界或名古屋港水族馆。

木地新闻

海龟归海

热点新闻

以后回不回来?

小海龟重回大海怀抱



许淑美

据新加坡处于繁忙的 机道,绝大多数沙滩 都是填土而成、并非 天然,但本地海域和沙滩还是 出现过海龟的踪迹。

野生环境网站Wild Singapore发起人脉渐瘫指出,很多 在附近国家海域大批产卵的海 色,在非产卵季节会游到新加 坡水域活动和觅食。

邻国马米西亚的登嘉楼 (Terengganu)、马六甲、霹雳 (Perak)、沙巴 (Sabah)等 他, 都是海龟产卵的地点。

世界自然基金会(WWR)以李而亦分級命为



上图:工作人员将装着海龟的 箱子搬到姐妹岛。(李欣赏摄)



成年玳瑁龟(hawksbill turtle)安装追踪器,其中一只名 为Puteri Pulau Upeh的雌海 龟,就在2007年2月被探测到 出现在圣淘沙一带的海域。

箱子内装着一只只即将重回大

海的海龟。

- HALLMIN

2

除了圣淘沙,东海岸公园、裕廊岛、丹那美拉 (Tanah Merah)、姐妹岛、韩都岛 (Pulau Hantu)等,也都出现过大 小海龟的踪影,本地也不乏海 龟到这里产卵的案例。

Sivasothi受访时说,几乎 每一年都会有海龟来到新加坡 产卵。"来这里产卵的海龟, 可能原本就在这里出世,或从 本区域其他沙滩游来新加坡, 寻找适合的沙滩产卵。"

海龟的出现是一大惊喜

由于海龟都是"独来独往", 因此行踪相当"神稳",它们 的出现总给人们带来意外且美 好的惊喜。 一名大自然爱好者在姐妹岛的潮汐间带亲眼看到玳瑁龟之后,就兴奋地在博客(blog)上写道"我们跟随在海边游动的海龟到处跑,直到它消失在水深处,从我们这些'狗仔队'的聚光灯中脱身"。

海龟是濒临绝种的生物, 公众如果在沙滩上发现海龟蛋 或行为反常的小海龟(如走向 陆地面非大海),应该拨电通 知警方,警方会联系国家公园 局(NParks)。

kohsm@sph.com.sg



小海龟好奇地探出头来, 迫不及待重回大海的怀抱。

为重回大海作准备

13只在日本名古屋(Nagoya) 港水族馆生长的小玳瑁龟,在 5月底已经来到新加坡海底世 界适应环境,为重回大海作好 海底世界馆长张剑豪指出,海底世界为小海龟制作了貌似珊瑚礁和洞穴的道具,并在洞穴底珊瑚礁和洞穴的道具,并在洞穴底下放了一些类似食物的物件,以训练小海龟到洞穴底下战行物。

他说:"我们希望这个过程 能帮助小海龟适应野外环境, 并成功在大自然中觅食。"

除了训练海龟觅食,海底世界在挑选合适的放生地

点时也下了不少功夫。张剑豪透露,海底世界咨询过张云章副教授、考虑了圣约翰岛(St John's Island)、龟屿岛(Kusu Island)和姐妹岛,最后选择姐妹岛,主要考量因素是放生地点周边海域的交通流量不高、沙滩倾斜度平缓等。

我的字典 HELPDESK

产卵 chản luản: To lay eggs

不乏 bù fá: There is no lack of

w hui: Beak

医遗食、海 锯齿边缘 jù chǐ biān yuán: E 的 动生物 Serrated edge



海龟从新加坡南部海域出发,展开它们的海上历险记。

我知道 / 不知道

全球目前有7个海龟品种,东南亚和东亚海域就有其中5个品种。本地最常见的有2个品种。

◆ 玳瑁龟 (hawksbill

untle): 玳瑁龟最明显的特征是它鹰喙般的嘴,以及龟壳后方的锯齿边缘。它主要生活在浅珊瑚礁区,并以海绵和甲壳纲动物 (crustaceans)为主食。玳瑁龟壳上的美丽花纹,也使它成为人类捕猎的对象。玳瑁龟在国际上被列为极度濒临绝种的动物。

◆ 绿海龟(green turtle):绿海龟的主食是海草和海藻

(seaweed),所以其软骨和 体内的脂肪聚积了许多绿色 素,呈现淡绿色,也因此得名 绿海龟。成年的绿海龟是草食 动物,但它们年幼时则动植物 都吃,其主食包括海带、螃蟹 和乌贼(squid)。绿海龟是濒

海龟目前所面临的威胁:

- ◆人类对海龟和龟蛋的捕杀及 走私。
 - ◆ 捕鱼活动导致海龟受困渔网 而死亡。
- ◆海里的塑料垃圾(海龟可能 误以为是食物而吃下)。



A hawksbill turtle making its way to the sea at Big Sister Island yesterday. The event is thought to be the first tagging and release of captive-bred hawksbill turtles in the world. ST PHOTO: AIDAH RAUF

Turtles make a splash for science

Conservation bid sees 8 of 18 hawksbill turtles freed fitted with tracking devices

BY VICTORIA VAUGHAN

EIGHTEEN critically endangered hawksbill turtles, eight of them fitted with tracking devices, raced to the sea yesterday at Big Sister Island (Pulau Subar Laut), south of Sentosa.

The event is thought to be the first tagging and release of captive-bred hawksbill turtles in the world, according to experts The Straits Times spoke to. Globally, only about 60 to 80 nesting hawksbill turtles have been tagged.

Of those released yesterday, 13 were young turtles from the Port of Nagoya Public Aquarium in Japan. They had been bred in captivity from parents donated by Underwater World Singapore (UWS) in 1997 and 2002.

In a collaboration between the aquariums and the National Oceanic and Atmospheric Administration (NOAA) in Hawaii, eight of the turtles, all aged three, were fitted with satellite-linked tags, which will beam location information to the aquariums via France and the United States.

Raffles Museum of Biodiversity Research director Peter Ng said: "Five of the seven species of sea turtles can be found locally, with sightings of the hawksbill occurring frequently, making it a very important focal point for conservation.

"We must learn their idiosyncrasies before we can plan to protect them."

Hawksbill turtles are threatened by fishing practices, and are also caught for food and to make items such as combs from their shells.

Each tracking device, which costs around US\$2,000 (S\$2,700), transmits every 45 seconds when the turtle is on the ocean's surface. It is hoped that six months of data will be collected before the

devices run out of battery, or drop off as the turtles grow.

Five 1½-year-old turtles, with shells measuring 30cm across, were too small to be tagged. The remaining five adult turtles - two males and three females - were resident at UWS for about 16 years, and were picked from the 19 such turtles there for release due to their good health and chances of survival.

Although the turtles have spent their lives in captivity, the experts are confident of their survival in the wild.

Said NOAA turtle expert George Balazs: "Turtles are not highly evolved and are more inclined to their survival instincts than any intellectual thought process, so they are more likely to adapt well to the wild, unlike captive-bred dolphins, for example."

captive-bred dolphins, for example."

UWS curator Anthony Chang added:
"The turtles have undergone conditioning
for the wild. We created something that
looks like a shallow reef and put food under
rocks to get them used to searching for
food."

vvaughan@sph.com.sg



(李欣赏摄)

许淑美

天下午,13只千里 迢迢从日本名古屋 (Nagoya)"来到" 我国南部海域姐妹岛的小海 龟,从沙滩投入大海的怀抱, 开始它们的"海洋历险记"。

这是新加坡海底世界连同日本名古屋港水族馆以及美国海洋暨大气总署(NOAA)配合国际生物多样性年(International Year of Biodiversity)所展开的放生活动,目的是要通过龟壳上装置

的卫星追踪仪器,了解小海龟 投奔大海之后的迁移行踪。

这13只年龄为1岁和3岁的 小海龟身世特殊,它们的父母 有的于十几年前在本地沙滩被 人发现,另一些则在执法行动 中被当局充公,结果都住进了 海底世界。

海底世界在1997年至2002年之间,将它们捐给拥有丰富繁殖海龟经验的名古屋港水族馆,这些海龟继而在该水族馆产下昨天放生的第二代玳瑁龟(hawksbill turtle)。

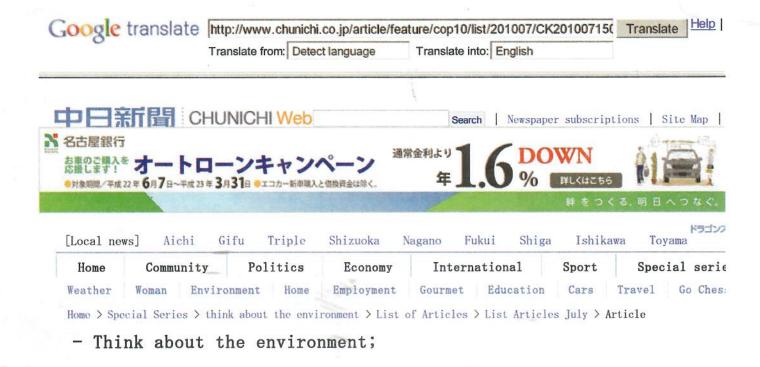
这项计划的顾问、国立

教育学院(NIE)自然科学系副教授张云章曾在接受媒体访问时指出: "这些海龟在日本出世,它们的父母则在新加坡长大。我们希望能(从这个计划)研究小海龟回家的本能以及这同印在它们基因里的信息之间的关系。"

科学家认为, 雌海龟一般 会回到出生地产卵, 但确切原 因仍是个谜。由于海龟大部分 时间都在大海里, 科学家对这 个濒临绝种生物的认识仍不全 面。这项小玳瑁龟追踪计划将 有助于科学家对海龟的研究。 身为生态保育人士,新加坡国立大学(NUS)科学系生物科学部门讲师Sivasothi N认为,该计划对保育海龟深具意义。"我们必须知道小海龟去了哪里和它们的栖息地等资料,才能更好的了解它们的生态、需要保护哪些地方,以及它们需要什么样的空间。"

海底世界如何协助这些 "远道而来"的海龟作好重回 大海的准备?新加坡哪些地方 曾发现海龟的踪迹?《热点新 闻》告诉你。

详文刊B4



15 animals released in Singapore next month off to a rare species Hawksbill

July 15, 2010

Port of Nagoya Public Aquarium (Minato) bred rare species of sea turtles "in hawksbill" was chosen to be released off the coast of Singapore on August 24. The local children also participated released in Japan and plans to deepen the understanding of rare species and ecosystem conservation.

Hawksbill discharging the 15 animals born in 2009 hatchling turtles and from 2007 parents imported from Singapore Meiko aquarium. The 10th Conference of the

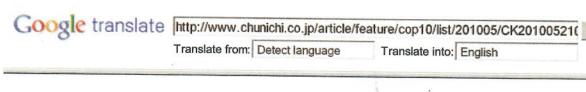


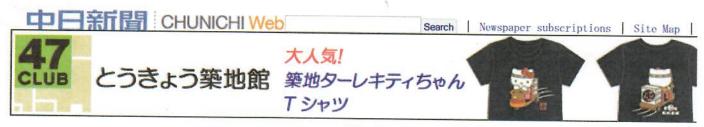
Transported from the Port of Nagoya Public Aquarium, hawksbill be released in Singapore (courtesy of the aquarium.)

Parties Convention on Biological Diversity held in October in the city (meeting Earth Creature = COP10) was planned as related businesses.

15 animals are brought to Singapore in May, is accustomed to the local aquarium environment, says health is good.

Sand and sea where the discharge of offshore islands of Singapore. Some are





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- Think about the environment;

15 animals born in the aquarium to prevent the extinction hawksbill Meiko released

May 21, 2010

Translate Help

Port of Nagoya Public Aquarium (Minato-ku, Nagoya) rare species of sea turtles born in "Hawksbill" 15 dogs on June 20, to be released into the tropical waters of the main habitats, left for Singapore. The overfishing as an ingredient in tortoiseshell, attempt unusual halt condition declined until the danger of extinction, Conference of the Parties 10th Convention on Biological Diversity held in the city (meeting Earth Creature = COP10) to fit and reported results.



Hawksbill traveled to be released in Singapore-in Minato Ward, Nagoya Port of Nagoya Public Aquarium

Hawksbill has reached over one meter long and growing, living tortoise is a familiar quality that has been processed, such as glasses or comb. But now by overfishing has reduced the number to be in the CITES trade ban.

Meiko Aquarium, the spawning of the world's first indoor hawksbill in 1998, hatching success, raising more fish now 130. The parents turtles laid eggs

Google translate http://www.chunichi.co.jp/article/feature/cop10/list/201001/CK20100120(Translate Help |

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- Think about the environment;

August to discharge the hawksbill sea aquarium swimming crash course in Singapore Meiko

January 20, 2010



Hawksbill turtle swimming training in a large tank (right). Even know the severity of nature act on Tsuka Retsu Lutjanus gibbus = 19, in Minato Ward, Nagoya Port of Nagoya Public Aquarium

The 10th Conference of the Parties Convention on Biological Diversity held in Nagoya month 10 (COP10) before a Port of Nagoya Public Aquarium (Minato city) late August, the 15 animals released into the sea of children hawksbill Singapore The plan has a swimming training for a small turtle tank only know.

15 animals from the birth mother came from an aquarium in Singapore Singapore Andauotawarudo 1997. The 10 animals born in the summer of 2007, with a radio transmitter for tracking satellites, National Oceanic and Atmospheric Administration and the aquarium (NOAA)

conduct research on the ecology and with the cooperation of migration. 05 animals were born last summer.

Saving the Singapore Hawksbill

It is a city full of concrete and planted greenery but this busy island has played a surprising part in hawksbill turtle research and breeding.

TEXT AND PHOTOS DR TOMOMI SAITO, DR GEORGE BALAZS, MARC RICE, LEE TIOW AUN & MAKOTO SOICHI

THE hawksbill turtle (*Eretmochelys imbricata*) is internationally acknowledged as an endangered species, and is listed as "critically endangered" in the Singapore Red Data Book. Migration studies on hawksbills have been limited possibly due to the tendency for satellite tags to be dislodged when they forage for food in coral crevices.

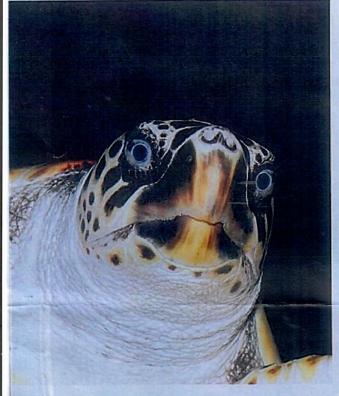
BREEDING BEGINNINGS

In the 1990s, Underwater World Singapore (UWS) provided Japan's Port of Nagoya Public Aquarium (PNPA) with a number of hawksbill turtles for its breeding programme. With a turtle pool and an artificial beach equipped with highly sensitive cameras, the Japanese aquarium has had a successful breeding programme for 16 years. They have counted more than 17,000 eggs and 8,700 hatchlings since 1995. Their unique set-up has allowed them to make important observations on the reproductive processes that wouldn't otherwise be possible in the wild.

In honour of the International Year of Biodiversity 2010, the two aquariums launched a Hawksbill Turtle Tag-and-Release project to begin studying their migration patterns. What is so unique about this project is that the turtles selected for release are the direct descendants of the original turtles sent to Japan from Singapore for the PNPA breeding programme.

In preparation for the big release, UWS experts explored Singapore's southern islands to find a suitable beach. Big Sister's Island was selected for its sandy sloping beach and its proximity to open sea. Eight 3-year old hawksbills were fitted with tracking





Marine turtles have been on Earth for more than 200 million years. They watched the dinosaurs die out and lived on to witness the evolution of man and the modern world. Unfortunately, of the seven species left today, six are considered endangered and one is simply data deficient. In a fraction of the time that turtles have been on Earth, man is slowly but surely driving them to extinction.

This year's *Big Blue Book* and ADEX 2011 are dedicated to this ancient mariner. In April, ADEX will bring turtle experts, conservationists, divers and anyone with an ounce of compassion for this enigmatic reptile together in a celebration of its longevity. This special issue of *Asian Diver's Big Blue Book* gives you a taste of turtle offerings – from turtle biology and conservation to turtle hotspots and memorable encounters.

ADEX has evolved into more than just an exhibition for divers. It is an event for everyone interested in the ocean and its inhabitants. The ASIAN Geographic SOCIETY (AGS) shares this concern for the seas. Last yer, we promoted WWF's Singapore Seafood Guide and the pledges against shark finning. This year, we continue to be the voice of those who work for the world's oceans.

The planet (and this special edition) is blue; let's keep the turtles in it.

The &

Your editor,
Serina Rahman
Editor, Big Blue Book
Vice President, ASIAN Geographic SOCIETY

Cover: CONGRATULATIONS! The winner of the Best Turtle Cover is Justin Lewis. He has won a 4day/3night BORNEO DIVERS MABUL RESORT DIVE PACKAGE for two (worth about US\$1,000) and a Samurai Video Cam (worth US\$350).





Best In Class Awards 2011!

The "Best In Class" Awards are back for a second year running. Vote for the dive individual or company that has made diving in Asia that much more enjoyable for you! AsianDiver.com/ADEX BY DIVERS, FOR DIVERS

Terrific Turtles! The Magnificent Seven

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