

2007 Report on the Conservation and Outreach Projects of the Turtle Research and Rehabilitation Group*, Institute of Oceanography, Universiti Malaysia Terengganu

* also popularly known as SEATRU

This report summarises the activities of the Turtle Research and Rehabilitation Group for the year 2007 and is divided into the following sections:

1. Marine Turtle Conservation Project in Chagar Hutang, Pulau Redang.
2. Setiu River Terrapin Conservation Project
3. Save Our Turtles Outreach Program
4. Other Activities
5. Acknowledgements

As in previous years, the activities centered around the marine turtle and river terrapin conservation projects and STOP, the Save Our Turtles Outreach Program.

1. Marine Turtle Conservation Project in Chagar Hutang, Pulau Redang.

Monitoring of Nesting Turtles

In 2007, a total of 68 green and 2 hawksbill individual turtles nested in Chagar Hutang, out of which 38 were newly-tagged green turtles and 1 newly-tagged hawksbill turtle. The remaining 31 were remigrant turtles that had been tagged and nested in previous years. The table below provides information on the turtles that landed in Chagar Hutang in 2007:

Year tagged	Green	Hawksbill		Year tagged	Green	Hawksbill
1993	7	-		2001	2	-
1994	1	-		2002	5	-
1995	2	-		2003	-	-
1996	-	-		2004	3	-
1997	-	-		2005	-	1
1998	2	-		2006	1	-
1999	1	-		2007	38	1
2000	6	-		TOTAL	68	2

In-situ Egg Incubation

A total of 367 nests (358 green turtle nests and 9 hawksbill turtle nests) were deposited in Chagar Hutang beach in 2007. When we closed camp at the end of October, there were 19 nests left to complete their incubation on the beach. The analysis of these nests were performed by our workers from Redang Village.

From the 343 green turtle nests that were analyzed for hatching data, the average hatching success was 83% while average number of eggs per nest was 86. Based on these values, we calculated that a total of 30,788 green turtle eggs were deposited in Chagar Hutang for the 2007 season while a total of 25,554 hatchlings were produced. Of notable interest was one individual (ID 2002G030) which laid four nests, of which three had 0% hatching success while one nest exhibited 1% hatching success.

The two hawksbills monitored in 2007 produced a total of 9 nests (1,269 eggs). The average number of eggs found per nest was 141 while average hatching success was 95%. Hence a total of 1,206 hawksbill hatchlings were produced for the season.

2. Setiu River Terrapin Conservation Project

This project was initiated in 2004 and involves the purchase of eggs from egg collectors in Kampung Mangkuk, egg incubation, head-starting of hatchlings and release of two to three year-old terrapins. In 2007, we started to increase community participation in the project by training a local fisherman's wife to carry out egg incubation in Kampung Mangkuk and two fishermen to raise one year old terrapins in floating net-cages in the Setiu River.

Purchase of Eggs and Egg Incubation

In 2007, the number of nestings in the two nesting banks of the Setiu River monitored by villagers from Kampung Mangkuk dropped to 13 and as a result, only 229 eggs were procured for incubation. However, since eggs were incubated in Kampong Mangkuk itself and did not undergo the hour-long transportation to the UMT campus, there was an improvement in the hatching success as indicated in the table below:

Year	2004	2005	2006	2007
No. eggs purchased	365	282	387	229
No. hatchlings produced	236	137	273	180
Hatching success	64.65%	48.45%	70.54%	79%

Head-starting

All hatchlings produced are head-started for two to three years before release. The hatchlings are raised in concrete tanks in the UMT campus for one year, then transferred to floating net-cages in the Setiu River and raised a further two years before release.

The following table details the terrapins being raised in the Terrapin Head-starting Facility in the UMT campus as of December 2007:.

Age	Total no.	Average body weight (g)	Average carapace length (cm)	Average carapace width (cm)
2 years old (hatched 2005)	33	1136 ± 416	17.26 ± 2.17	19.59 ± 3.08
1 year old (hatched 2006)	122	364 ± 105	12.53 ± 1.17	13.38 ± 1.48
< 1 year old (hatched 2007)	154	128 ± 32	9.38 ± 0.86	9.31 ± 0.78

Two batches of terrapins were transferred from UMT to floating nest-cages by the Setiu River in May and July 2007. The terrapins being raised in the cages as of December 2007 are indicated below:

Age	Total no.	Average body weight (g)	Average carapace length (cm)	Average carapace width (cm)
3 years old (hatched 2004)	27	2032 ± 486	22.40 ± 2.33	20.35 ± 2.11
2 years old (hatched 2005)	64	1415 ± 437	21.43 ± 1.49	19.13 ± 1.87
1 year old (hatched 2006)	117	626.43 ± 67	14.743 ± 0.52	16.61 ± 0.68

Release of Head-started Terrapins

The third Annual Terrapin Independence Day (TID) was held on 8 September 2007 with the release of 20 two year-old and 30 three year-old terrapins (total of 50).

The table below shows releases made since 2005 when we launched our TID.

Year Released	2005	2006	2007
No. of terrapins released	150 one-year-olds (hatched 2004)	40 two-year-olds (hatched 2004)	50 two- and three-year olds (hatched 2005 and 2004)

As a special commemoration of Malaysia's 50 years of nationhood, a parade of fishermen's boats decorated with the theme "Save Our River Terrapins" was held. Prizes were given to the top three best decorated boats.

3. Save Our Turtles Outreach Program

Volunteer Program

A total of 181 volunteers participated in the Volunteer Program in 2007. The majority of the volunteers were students.

Turtle / Terrapin Adoptions

We received 37 marine turtle adoptions and 75 terrapin adoptions in 2007. Among the 75 terrapins, 70 were adopted by the Persatuan Penganut Agama Buddha Amitabha Huayan Selangor and the balance were individual adoptions.

Nest Adoptions

We received 382 nest adoptions, of which 152 were adopted by some Taiwanese supporters, 70 by the Persatuan Penganut Agama Buddha Amitabha Huayan Selangor, 53 by some Johorean supporters and 19 by some Australian supporters. The balance were individual adoptions.

Turtle Camps

Three camps (Kem SiPenyu) were carried out for the school children of Sekolah Kebangsaan Pulau Redang in August 2007. A 3 day 2 night camp was also held for 17 students from the Shanghai American School in April/May 2007.

4. Other Activities

Other activities of notable interest carried out in 2007 are listed below:

- i. Rescue of 73 freshwater turtles and tortoises from a slaughter house near Yong Peng, Johore in April 2007 : We arranged for Penganut Agama Buddha Amitabha Huayan Selangor to buy over the turtles. The turtles were released into a pond in a private farm in Ulu Langat.
- ii. Invited talks given to participants of Project Aware in Berjaya Redang and Coral Redang in September 2007. These groups made day visits to Chagar Hutang to learn about the grassroots turtle conservation project.
- iii. Visit to Shanghai American School by Project Leader as guest scientist in November 2007 : A total of six presentations were given to spread the message of turtle conservation to the school kids in Shanghai.

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- iv. Media coverage : We have been regularly featured in the Star and the New Straits Times and have also appeared on TV (TV3 Malaysia Hari Ini, Majalah Tiga and Aljazeera News)
- v. Signing of a Memorandum of Understanding with Way-Out Experiences : This will enable us to employ an education officer from November 2007 to March 2008 to carry out a turtle awareness road show in selected schools in Terengganu.
- vi. Rebranding of our name: University Malaysia Terengganu has approved that the name of our fund in the university be changed to “Turtle Aid Malaysia” (abbreviated as TAMY) . We will start to use this new name for our group in 2008.
- vii. Redesigning of the official SEATRU website: This is in progress and the website will be known as the official Turtle Aid Malaysia (TAMY) website (<http://www.umt.edu.my/turtle>).

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- New Straits Times
- Persatuan Penganut Agama Buddha Amitabha Huayan Selangor
- Shanghai American School (SAS)
- Shanghai American School (SAS): Roots and Shoots
- Terengganu State Government
- The Body Shop
- The Star
- TV3
- Universiti Malaysia Terengganu (UMT)
- Way-Out Experiences (WOX)

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