

Final Report Submitted to the Save the Tiger Fund

MALYSIAN TIGER CONSERVATION AND PROTECTION



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DEPARTMENT OF WILDLIFE AND NATIONAL
PARKS, PENINSULAR MALAYSIA

Introduction

In July 1997, the Tiger Research Unit was reestablished in the Department of Wildlife and National Parks headquarters by recruiting a new officer Mr. Wan Shaharuddin to head the unit. In November 1997, TRU began to conduct tiger surveys with technical support from Wildlife Conservation Society. In July 1998, the first fund from the Save the Tiger Funds was made available to the Department. The total fund granted was USD124,000, and as per contract, 80% of the fund, including purchase and repair of camera traps in the USA, has been disbursed to DWNP. As of 31 December 2002, we have closed the Save the Tiger Fund account in DWNP, and below we discuss the accomplishment, constraints, and reasons for delay in completing the project.

1. Research Accomplishments by Tiger Research Unit

Research has always been an integral part of the tiger conservation in Malaysia, but until recently, application of rigorous scientific methods had been difficult given the limited data obtained mainly from tracks. Now the camera-trapping technique provides incontestable information on tiger and its prey species that were unavailable before. Following the Wildlife Conservation Society/DWNP rapid assessment work at 6 sites in TCU1 in 1998, Tiger Research Unit independently completed assessment of additional 3 sites in 1999. STF provided the financial support for a workshop for DWNP rangers on the application of the camera-trapping technique in 1998, and the work carried out in 1999. Details of the camera trapping results from the 1999 work are in Table 1-1. DWNP was also involved in other joint tiger research projects with University of Florida (1998-2001), and Danish Cooperation for Environment and Development/WCS (2000-2001), and collaborated with WWF-Malaysia (1999-on going) on yet another research. Thus far, a total of 14 locations all in, or immediately adjacent to, the TCU1 was subjected to various efforts of camera-trapping survey (Figure 1-1). Table 1-2 summarizes the progress of the collaborative research efforts between 1998 and 2002. In addition to the camera-trapping studies above, DWNP conducted inventory of vertebrate fauna at 11 forest blocks in 2000-2002 throughout the peninsula.

The data collection phase is mostly over except for the WWFM project. In order to synthesize the findings of the above research to determine the conservation status of tigers in Peninsular Malaysia, each Principal Investigator needs to produce final report from the respective research. We have requested and are still waiting for such reports from respective agencies (Table 1-2).

2. Systematization of the Tiger Database

There was a need for a centralized databank for all data concerning tigers. For such purpose, DWNP has a section of Management Information System (MIS) under the Division of Research and Conservation. However, it has been inactive in most part due to shortage of manpower, lack of expertise and facility. The tiger distribution was last updated in 1990. Due to insufficient coordination and cooperation, only about 500 data points have accumulated in MIS from various sources in 90s. Recognizing the shortfall, in July 2002, DWNP appointed Dr. Kae Kawanishi (then a PhD candidate at University of Florida and PI of the UF tiger project) as a technical advisor to the Division of Research and Conservation and MIS with one of her main task as to coordinate the various efforts for research and conservation of Malay Tigers. In August at the tiger workshop held by DWNP with the financial support from STF (see Appendix A), Dr. Kawanishi, on behalf of the Director of MIS, demonstrated the application of GIS and requested cooperation from DWNP state offices for data collection and consolidation. See Figure 2-1 for a sample GIS product of tiger-human conflict site in Jeli, Kelantan, where 5 persons were attacked by tigers in 2002 alone. Since then,

considerable effort was made by DWNP staff to consolidate tiger data from various sources including research activities mentioned above. There are currently about 1500 data points that need to be incorporated into GIS and analyzed, which requires the technical support from Dr. Kawanishi. This final step is the incomplete portion of the database systemization because 1) the data consolidation took until December 2002 when the funds from STF exhausted, and 2) Dr. Kawanishi started full time only in January 2003. If the requested fund to support the analysis is made available, it can be completed in 3 months (see attached, *A request for a final extension of 3 months to complete the tiger data systematization and landscape analysis*).

The major constraints to achieve the research goal in time were the insufficient manpower and technical expertise within DWNP for data management, analysis, and synthesis of findings of the collaborate research efforts. Transfer of personnel in key posts is the nature of our government system. In consequence, the key personnel who developed the proposal for STF in 1997 left DWNP headquarters. Since then, the continuity of the project initiative was lost while the Director of the Research and Conservation has changed three times.

Secondly, as a part of capacity building DWNP staff was trained on an application of the camera-trapping technique, and now is capable of independently carrying out the field sampling. Consequently, the data continued to accumulate, but DWNP lacked the technical expertise to analyze them. As such, we depended on the collaborating external agencies for data analysis. Partly because of this and also the increasing pressure from the tiger-human conflicts, a directive was given to Tiger Research Unit to concentrate on research dealing with immediate management problems rather than long-term conservation benefits.

Thirdly, activities of Tiger Research Unit are sometimes dictated by priority issues of DWNP as a whole. For example, in the year 2001, the national biodiversity inventory became the urgent priority, and personnel from all research units, not only of tigers but also of elephants, rhinos, birds, small mammal, etc., were all involved in the inventory activity.

To overcome these constraints, DWNP realized the need of an independent technical consultant and tiger research/conservation coordinator who can provide technical expertise and guidance, ensure the continuity of project initiatives, evaluate the progress of DWNP activities concerning tigers, and coordinate various research/conservation activities by local or International bodies on Malay Tigers. DWNP has appointed Dr. Kawanishi to carry out this task. Her full-time appointment started in January 2003 and together, we hope to make more concerted efforts towards our goal.

3. Community Outreach

Apart from the dissemination of information through the homepage of the Department of Wildlife and National Parks (DWNP), additional and more specific information on tigers were provided in the form of pamphlets and signage.

The pamphlets were written in four different languages commonly used in Malaysia (Chinese, English, Malay and Tamil) and distributed to various zoos and interpretive centers in the country (attached). Information included distribution, ecology, status and conservation. Signage of the distribution of tigers in the world were done on thick perspex (5 x 4 ft) and distributed to various zoos in the country to be displayed near tiger exhibitions (see Figure 3-1 for reduced-size design.)

Tiger Research Unit from the DWNP headquarters with an assistance of the state Tiger Unit made frequent visits to the conflict areas in Kelantan to discuss with the district and village representatives on resolving the human-tiger conflicts. The discussions also involved various agencies including the district office, village guards, Federal Land Development Authorities (FELDA), rubber tappers and the land office. Through discussions with the local authorities and politicians, a proposal was drawn up requesting assistance from the state and federal government. In the late 2002, the federal government allocated RM 600,000.00 (USD158,000.00) to resolve the tiger-human conflict in the state of Kelantan. This is integrated into the Tiger Unit's activities in 2003.

4. Captive Breeding Program – Zoo Melaka

The captive breeding program for the Indochinese tigers started in the mid 1980's with founders being acquired from conflict areas in Pahang. Since then the enclosures at Zoo Melaka have expanded to accommodate the captive bred animals as well as those captured from conflict areas throughout the country. To date the zoo has produced more than 50 captive bred tigers. Although these first, second and third generation of tigers were sent to various zoos in and outside the country, the enclosures could not sustain those that were constantly acquired from the wild. The additional captive breeding facility, funded by STF was completed in 1999 (see Figure 4-1 for floor plan) consisting of six individual compartments (5X4X4 meters each) and one exercise yard (5X10X4 meters). This expansion provided a better enclosure for the "problem" tigers from Pahang, Kelantan and Perak that were acquired from the wild through trappings.

The current population in Zoo Melaka included five males, six females and three cubs, housed in three separate complexes within the zoo. The better facilities offer more space and facilitate their captive management. Due to the recent spate of tigers that are being displaced from their natural habitat into human habitation, more tigers are being captured. During the periods, 2000-2002, a total of five tigers were caught from the state of Kelantan and sent to the zoo. Zoo Melaka was prompted once again to increase their tiger facility by constructing another enclosure.

Some of these "wild-caught" tigers were sent to the other local zoo within the country. Efforts are being made to export some of the tigers to zoos in the United States of America. The current captive breeding of tigers at the zoo is done selectively when required.

5. Future Outlook

We plan to spend this year overcoming some of the constraints described above. Wan Shaharuddin will continue to collaborate with the Tiger Unit in Kelantan state and WWF-Malaysia in an attempt to minimize the tiger-human conflicts in the affected area in Kelantan. Additional inventories will be carried out in a few more important conservation areas by the Division of Research and Conservation. Concurrently, we will establish the framework for updating the Tiger Action Plan and consolidate the past research data to determine the conservation status of tigers in Malaysia. The unified Tiger Unit will be important to protect tigers on the ground. Improved communication and coordination between Tiger Unit in the headquarters and State Tiger Units are also the major goal for this year.

Table 1-1

Sampling efforts and number of photographs of mammalian species obtained from camera-trapping study by DWNP in 1999

Species	Location	Sungai Kial Forest Reserve, Cameron Highland	Hulu Sat, Taman Negara	Hulu Lepar Forest Reserve
Sampling period (dd/mm/yy)		7/2 – 19/3/99	26/5 – 18/7/99	28/9 – 26/11/99
Total trap nights		575	886	1171
Tiger		0	0	5
Leopard		0	6	7
Clouded leopard		0	3	0
Marbled cat		4	2	0
Leopard cat		2	2	10
Golden cat		10	1	16
Muntjac		16	23	52
Mouse deer		0	77	40
Malay civet		5	8	7
Masked-palm civet		6	24	6
Common porcupine		0	2	16
Brush-tailed porcupine		5	0	0
Pangolin		2	10	2
Rat		53	0	14
Elephant		0	1	1
Sun bear		2	3	2
Wild boar		6	7	11
Tapir		0	1	0
Yellow-throated marten		0	0	1
Smooth otter		0	0	1
Banded linsang		1	5	0
Binturong		0	1	0
Short-tailed macaque		1	1	22
Squirrel		4	2	0
Wild dog		1	2	0
Total		120	181	211

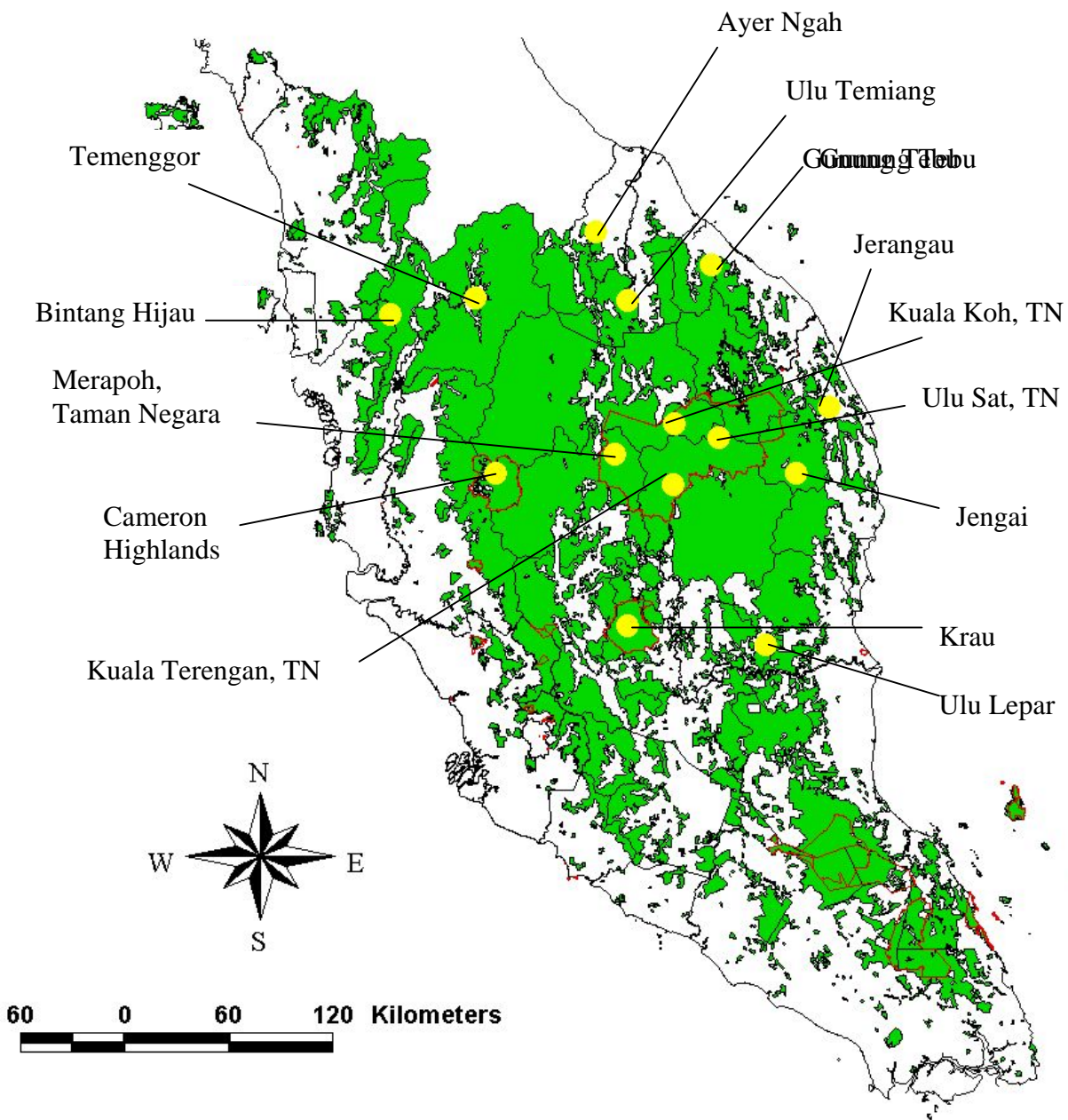


Figure 1-1

Approximate locations (yellow circle) of 14 camera-trapping studies on tigers conducted in Peninsular Malaysia by various organizations between 1997 – 2002. The polygons in red represent protected areas.

Map source: forest coverage from Department of Agriculture 1990. For other data source, see Table 1-2.

Table 1-2

Summary of research activities on Malay Tigers between 1997 and 2002

Focus	Location	Agency*	Duration	Status	Final report
Research with direct implication and benefit for tigers					
Rapid assessment 1 ¹	6 sites in TCU 1 (Temenggor, Bintan Hijau, Jengai, Gunung Tebu, Ulu Temiang, and Aye Nyah)	WCS DWNP	'97 – '98	Completed	On request
Rapid assessment 2 ²	3 sites in TCU 1 (Cameron Highland, Ulu Sat Taman Negara, Lepar Forest Reserve)	DWNP	'99	Completed	On request
Ecology and population status	3 sites in Taman Negara, the core protected area in TCU 1 (Merapoh, Kuala Terenggan, and Kuala Koh)	UF DWNP	'98 – '02	Completed	Yes ³
Conflict resolution ⁴	Jerangau, Terengganu, just outside TCU1	WWFM	'99 – on going	In progress**	Progress report on request
Research with indirect implication and benefit for tigers					
Wildlife Inventory	11 sites throughout Peninsular Malaysia	DWNP	'00 - '02	Completed	Yes ⁵
Biodiversity	Krau Wildlife Reserve, an isolated forest block in TCU1	DANCED DWNP WCS	'00 – '01	Completed	Yes ⁶

* Acronym

WCS: Wildlife Conservation Society

DWNP: Department of Wildlife and National Parks

UF: University of Florida

WWFM: Worldwide Fund for Nature-Malaysia

DANCED: Danish Cooperation for Environment and Development

** Expected for completion in 2003.

Selected references:

1. Laidlaw, R. and Wan Shahrudin, W. N. 1998. Activities patterns of the Indochinese tiger (*Panthera tigris corbetti*) and prey species in Peninsular Malaysia. *J. Wildl. Parks (Malaysia)* 16:85-96.
2. Anon. 1999. Annual report 1999. DWNP, Kuala Lumpur, Malaysia.
3. Kawanishi, K. 2002. Population status of tigers (*Panthera tigris*) in a primary rainforest of Peninsular Malaysia. PhD dissertation. University of Florida, Gainesville, Florida.
4. Mohd. Azlan, J. 2002. Recent observations of melanistic tapirs in Peninsular Malaysia. *Tapir Conservation* 11:27-28.
5. Anon. 2001. Inventory reports (unpublished) submitted to the Government of Malaysia. DWNP.
6. Anon. 2001. Krau Wildlife Reserve management plan. (Unpublished, internal circulation only.) DWNP/DANCED.

Appendix A Workshop on Tiger Management

Venue: Kuala Terengganu, Malaysia
Date: 26th – 28th August 2002

Introduction

This workshop was organized as an extension to the one held at the Nature Education Center, Bukit Renggit, Pahang in March 1999. A total of 13 officers from the Department of Wildlife and National Parks (DWNP) participated and presented working papers on various issues related to tiger management and conservation.

Objectives

The main objective is to brainstorm ideas to resolve the tiger – human conflicts and facilitate the communication between the Tiger Units from individual states and Tiger Unit at the DWNP headquarters. In addition, outcome of the workshop would also help refine the existing tiger action plan.

Participants and Papers Presented

	Name	Paper Presented
1	Sahir Othman (DWNP)	Conservation and Management of Wildlife in Peninsular Malaysia
2	Wan Shaharuddin (DWNP)	Management of the Malay Tiger in Peninsular Malaysia
3	Dr. Dionysius Sharma (WWFM)	Conservation of Tiger in Peninsular Malaysia (NGO Perspective)
4	Ghazali Omar (DWNP)	Management of tiger – human conflict in Terengganu, Malaysia
5	Zainuddin Shukor (DWNP)	Management of tiger – livestock – human conflict in Pahang, Malaysia
6	Jasmi Abdul (DWNP)	The Role of Belum State Park as a Sanctuary for Tigers in Perak
7	Hassan Kassim (DWNP)	Tiger Conflict in Jeli, Kelantan
8	Dr. Zainal Zahari Zainuddin (DWNP)	Trapping of Large Carnivores – Basic Principles of traps and trappings
9	Dr. Kae Kawanishi (UF/DWNP)	Tiger Research in Taman Negara. Application of GIS in Managing Tiger Data Base. (Presented on behalf of DWNP Management Information System)
10	Dr. Ebil Yusof (DWNP)	Protected Areas – Benefits and Challenges
11	Ab Jalal Kasim (DWNP)	Role of the Enforcement Unit in Tiger Conservation
12	Saharuddin Anan (DWNP)	The Role of the Development Division in Wildlife Conservation
13	Azlan Azad (WWFM)	Tiger – human conflict in FELDA Jerangau Barat, Terengganu

Output of Workshop

Various information and ideas were put forward to formulate a strategy to resolve the tiger – human conflict in Peninsular Malaysia. Problems of surplus captive tigers were also addressed during the workshop. Subsequently, the present Tiger Action Plan would be reviewed and refined based on the information gathered during the workshop (outlines in Malay attached).

Conclusion

The objectives of the workshop were achieved. The information gathered would also be used as a guideline to improve the existing Tiger Action Plan, specifically and for tiger management, generally. In order to formulate a proactive tiger management plan, the management effort needs to be consorted continuously in cooperation with the state DWNP directors and the Tiger Management Units. Outside the formal framework of workshop, the communication between the state DWNP offices and the Tiger Unit in headquarters must be continued.