

LAW PROTECTION OF HAWKSBILL TURTLE IN  
KOTA KINABALU, SABAH

CHONG HIN LAM

PERPUSTAKAAN  
UNIVERSITI MALAYSIA SABAH

THIS DISSERTATION IS SUBMITTED WITH THE PURPOSE TO FULFILL  
PART OF THE REQUIREMENT FOR BACHELOR OF SCIENCE WITH  
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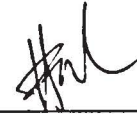


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## DECLARATION

I hereby declare that this dissertation contains my original study work. Sources of finding reviewed here have been duly acknowledged.

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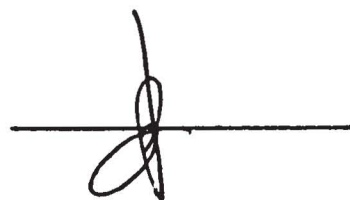
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## ABSTRACT

Hawksbill Turtle is listed as totally protected species of animals in the Schedule 1 Part I of Sabah Wildlife Conservation Enactment 1997. Therefore, the law protection of Hawksbill Turtle in Kota Kinabalu, Sabah was studied. In order to determine the way and the knowledge of the Sabah Wildlife Department's staffs towards implementation of Sabah Wildlife Conservation Enactment 1997, a survey through questionnaire was carried out. Data grouping and analysis using the Statistical Package for the Social Sciences (SPSS) are able to show crosstabulation count of the Spearman's rank order correlation between the level of post in the department and the necessity to study the Sabah Wildlife Conservation Enactment 1997 was not significant. Another correlation which determines the association between the knowledge of the enactment by the staffs and their involvement in patrolling and operations working with other authorities shows to be significant. The study turns out to be more detailed when there was useful information gained through the Wildlife Department Officer's interview. It is concluded that the law protection of Hawksbill Turtle in Kota Kinabalu, Sabah by Sabah Wildlife Department (SWD) seems to be effective when the populations of the turtle appear to be stabilising.

## **UNDANG-UNDANG PERLINDUNGAN PENYU SISIK DI KOTA KINABALU, SABAH**

### **ABSTRAK**

Penyu Sisik tersenarai sebagai spesies yang dilindungi dengan sepenuhnya dalam Jadual 1 Bahagian I yang terkandung dalam Enakmen Pemuliharaan Hidupan Liar 1997. Oleh itu, perlindungan Penyu Sisik melalui undang-undang adalah dikaji. Bagi menentukan operasi serta pengetahuan pekerja Jabatan Hidupan Liar Sabah dalam melaksanakan tugas berpandukan Enakmen Pemeliharaan Hidupan Liar Sabah Tahun 1997, kajian soal selidik telah dijalankan. Pengumpulan data dan analisis menggunakan Pakej Statistik bagi Sains Sosial (SPSS) mampu menunjukkan pengiraan korelasi Spearman di antara jawatan yang dipegang dalam jabatan dengan keperluan untuk mempelajari Enakmen Pemeliharaan Hidupan Liar Sabah Tahun 1997 adalah tidak nyata. Korelasi yang lain dalam menentukan kesatuan di antara pengetahuan serta penglibatan dalam pelaksanaan undang-undang menunjukkan hasil yang nyata. Kajian menjadi lebih mendalam apabila mendapat maklumat-maklumat yang berguna daripada Pegawai Hidupan Liar melalui temuramah. Secara kesimpulannya, perlindungan Penyu Sisik di Kota Kinabalu, Sabah melalui undang-undang yang dilaksanakan oleh pihak Jabatan Hidupan Liar Sabah didapati berkesan apabaila populasi penyu didapati adalah berada dalam keadaan yang stabil.

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## LIST OF SHORT FORMS

AUD	Australian Dollar
EPBC	Environment Protection and Biodiversity Conservation Act
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
IUCN	International Union for Conservation of Nature and Natural Resources
kg	kilogramme
MYR	Malaysia Ringgit
NGO	Non Government Organisation
PERHILITAN	Pejabat Hidupan Liar dan Taman Negara
THB	Thailand Baht
RM	Ringgit Malaysia
SWD	Sabah Wildlife Department
WWF	World Wide Fund
yrs	Years



## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Background**

Wildlife means wild animals, plants and other living things living in a natural undomesticated state (Encarta Dictionary, 2007). “Animal” means any vertebrate or invertebrate and also the eggs. “Plant” means any part includes the stem, branch, tuber, bulb, corn, stock, bud wood, cutting, layer, slip, sucker, root, leaf, flower, fruit, and seed. The plant product, whether severed or attached but does not include any plant product that has undergone a process of heat and drying treatment (Sabah Wildlife Conservation Enactment, 1997).

Wildlife plays an important role in biosphere to balance out the ecosystem. Therefore, in order to protect wildlife and preserve endangered species, it is focus in protection of their habitat, regulate hunting, prevent illegal killing, and other measures necessary for the purpose (Ministry Wildlife Protection Areas of Japan, 2007).

The protection of wildlife is important just because to ensure one or more of the species from being extinct. If there is extinction occurred, future generation will only have the opportunity to know the extinct species through books or via television.

Species judged as endangered with extinction are listed by state, federal, and international agencies as well as by some private organizations. The most cited of these lists in the Red Data Book issued by the International Union for Conservation of Nature and Natural Resources (IUCN) (Bolen & Robinson, 2003).

One of the species listed in the IUCN Red List CR A1bd category in year 1996 as critically endangered species was the Hawksbill Turtle (Braille & Groombridge, 1996). Besides that, the species was also categorised as totally protected animal in Schedule 1 Part I of the Sabah Wildlife Conservation Enactment 1997 (Sabah Wildlife Conservation Enactment, 1997).

Hawksbill Turtle (Figure 1.1) are threatened by the loss of nesting and feeding habitats, excessive egg-collection, fishery-related mortality, pollution, and coastal development. Despite their protection under CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora)(Reeve, 2002), as well as under many national laws, there is still a disturbingly large amount of trade in hawksbills products, and this probably constitutes the major threat to the species (World Wide Fund, 2007).



**Figure 1.1** Hawksbill Turtle (Source from World Wide Fund, 2007).

The wildlife protection system preserves wildlife can be done by law enforcement. Legislation has been seen as an important conservation tool for decades and can be enormously important as a way of controlling wildlife trade, especially when used thoughtfully - to be successful, laws need to be widely understood, accepted and practical to apply (TRAFFIC, 2004).

## **1.2 Objectives**

The objectives of this study are

1. To study the law provisions prescribed under the Sabah Wildlife Conservation Enactment, 1997 in the protection of Hawksbill Turtle in Kota Kinabalu, Sabah.
2. To determine the law enforcement activities and the knowledge of Sabah Wildlife Department's staffs towards the protection of Hawksbill Turtle based on the Sabah Wildlife Conservation Enactment, 1997.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Hawksbill Turtle (*Eretmochelys imbricata*)

##### 2.1.1 Physical Descriptions

As the English name suggests, the hawksbill has a narrow pointed beak look like an eagle. The shell of the Hawksbill Turtle called bekko is thin, flexible and highly coloured with elaborate patterns (Ernst & Barbour, 1989). The carapace of the hawksbill is unusual amongst the marine turtles as the scutes (the hard, bony plates that constitute the shell) are overlapping (Figure 2.1). These are often streaked and marbled with amber, yellow or brown, most evident when the shell material is worked and polished. This species is the sole source of commercial "tortoiseshell" (Ernst & Barbour, 1989).





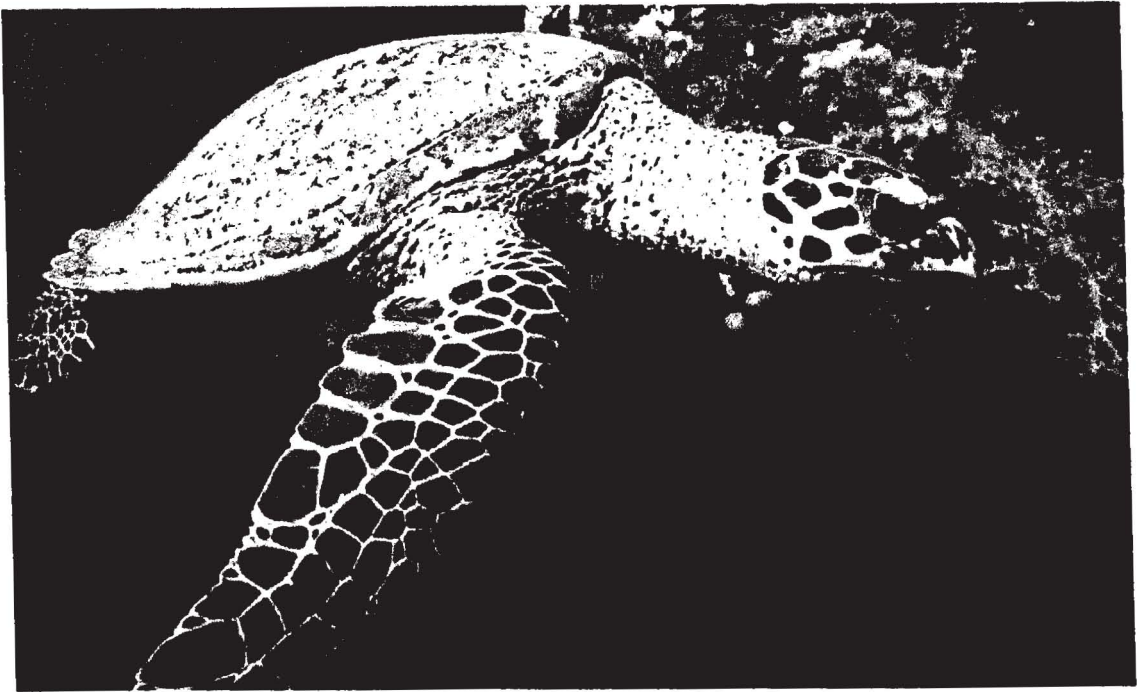
**Figure 2.1** Colour pattern on the overlapping scutes of the hawksbill (Source from Carlos Drews, 2005).

### **2.1.2 Habitat**

The habitat of the turtles is usually of rocky places and coral reefs. It also occurs in shallow coastal waters, such as mangrove-bordered bays, estuaries, and lagoons with mud bottoms and little or no vegetation, and in small narrow creeks and passes. It is occasionally found in deep waters and has been taken from floating patches of Sargassum weed. *Eretmochelys* shares its water habitat and nesting beaches with all other marine turtles (Lutz *et al.*, 2003).

In the past, there is perception that hawksbill turtle tends to be less migratory than the other species of marine turtle. However, more recent work involving satellite telemetry has revealed that the species does make long distance migrations. It is likely they use completely different area for feeding and breeding (World Wide Fund, 2007). The hawksbill turtles feed on invertebrates, preferring sponges in the sea (Figure 2.2).





**Figure 2.2** Hawksbill turtle live on coral reefs where their favourite food, sponges are most plentiful (Source from World Wide Fund, 2007).

## **2.2 Population of Marine Turtle**

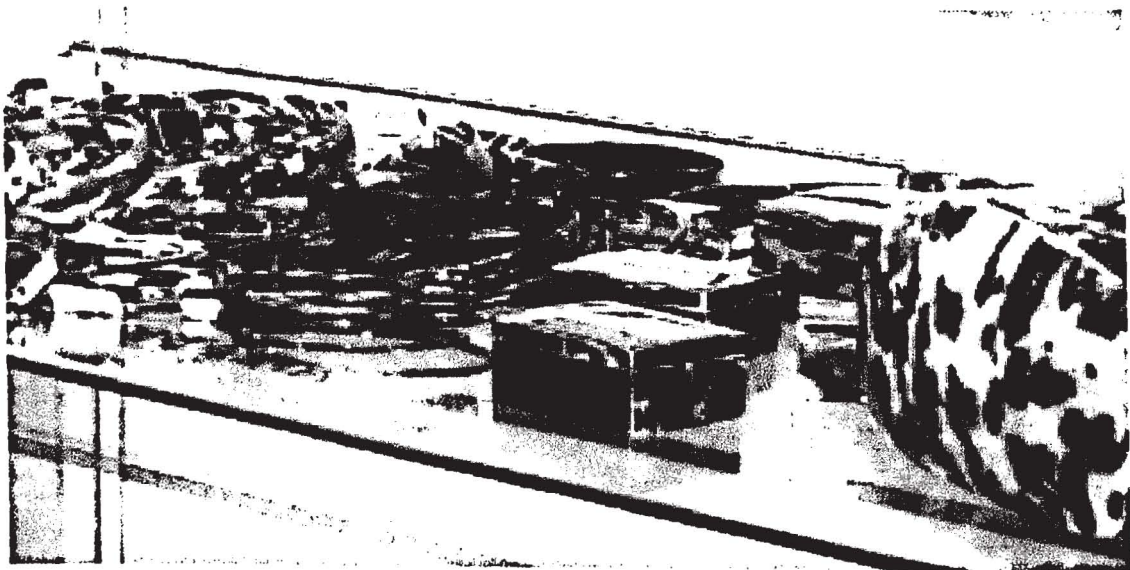
There are four species of marine turtles can be found in Malasia: Leatherback, Green, Hawksbill, and Olive Ridley turtles (Tan, 2006). These gentle reptiles of the sea swim great distances and only come on land to nest. They are known for their long life-span among local cultures. Unfortunately, the number of marine turtles in most places has decreased and some populations are on the brink of extinction (Tan, 2006).

The largest population of Hawksbills Turtle is found in the Turtle Islands of Sabah, Malaysian Borneo with an average of 500-600 nests each season and now the population of the turtles seems to be stabilising (World Wide Fund, 2007). Malacca's

sandy coastline has the second largest population of Hawksbills Turtle with 200-300 nests per season while Johor and Terengganu have lower numbers (Tan, 2006).

### 2.3 Factors of Getting Extinct

Traders which are trying to make money hiring poachers to hunt for Hawksbill turtles as the turtles have the economic value. Hawksbill turtles are popular with their beautiful brown and yellow carapace. Therefore, it becomes the target for jewellery and ornaments manufacturing (Figure 2.3). Besides that, the turtle are used for food, traditional medicine, religious release and decoration.



**Figure 2.3** Jewellery and ornaments that made of the turtle scutes (Source from Carlos Drews, 2005).



There are a few studies of egg use, and these have focused primarily on economic value and how use is regulated (Lagueux, 1991 ; Campbell, 1998). It is said that the eggs are full with nutritional value. Therefore, turtle eggs are usually become the target for own consumption or selling.

### **2.3.1 Traders from Worldwide**

Today, there are more humans and more threats. From the beach, where poachers may wait with a knife for her shell, leather and meat, to the sea where dangers range from the very large (fishing nets) to the invisible (life-threatening pollutants), this cycle is breaking down, fast.

Japan has long history of crafting hawksbill shell (bekko) into various decorative items, some of which have been found in ruins of a seventh-century city. Bekko is craft using traditional techniques and tools thought to be the same as those used 300-1000 years ago. Families pass on skills from one generation to the next, and one of the oldest bekko family (Ezaki in Nagasaki) is traced to 1709 (Kaneko & Yamaoka, 1999).

In Palau, the large coastal hawksbill scutes are molded into polished bowls called toluk and used as an exchange valuable among women. This form of traditional money is circulated exclusively by Palauan women to give gratitude for services and courtesies offered among their families (Smith, 1983).



The people of Seychelles view turtles as an integral part of their culture and economy (Mortimer & Collie, 1998). Hawksbill shell has been used for more recently 200 years, exported to Europe and more recently Japan, and fashioned locally into no items for sale to tourists. This ended in the late 1990s, when the government of Seychelles banned commercial trade in hawksbill products and slaughter within territorial waters. Artisans were compensated and sold their stockpiles to the government. Stockpiled shell was burned publicly in 1998.

## **2.4 Law Enforcement**

As there are a lot of traders and poachers from world wide which harm the turtles, it shows that there are lacks of protection efforts such as law enforcement. But there are certain countries which are alert to decrement of the species; hence law enforcement is used to stop illegal activities which are harmful to the turtles. One the country mentioned is Malaysia.

In Malaysia, the responsibility for the protection of wildlife and implementation of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) is divided between the federal authorities in Peninsular Malaysia and the states of Sarawak and Sabah. Each authority exercises independent administrative and legislative responsibilities.

In peninsular Malaysia, the primary legislation for the protection of wildlife is the Protection of Wildlife Act 1972 (Act 76), which is implemented by the Department of Wildlife and National Parks (Pejabat Hidupan Liar dan Taman Negara,



or PERHILITAN). The legislation is applicable only of mammals, birds, reptiles (excluding chelonians) and insects (butterflies only). Inexplicably absent from these schedules are all species of freshwater turtles and tortoise and found in Peninsular Malaysia, as well as fish and amphibians. The exclusion of native chelonians from this Act means they are extremely vulnerable to exploitation (TRAFFIC, 2000).

In Malaysia, turtles are afforded some protection under the Fisheries Act 1985 (Act 317) which allows for the control of the exploitation of native turtles and their eggs. However, this Act was primarily intended for the management of marine turtles and riverine fisheries of native terrapins (i.e. freshwater turtle species *Batagur baska*, *Collagur borneoensis* and *Orlitia borneensis*) only, and adoption and enforcement is prerogative of the various states. Thus, the onus lies on each state to formulate effective legislation to protect native turtles (Gregory & Sharma, 1997).

This circumstance has led to a lack of standardized legal protection across the States of Malaysia. Of the eleven peninsular states, only six currently have legislation pertaining to protection and exploitation of turtles, and three States have draft documents under review. One of the states mentioned is the Sabah state (Gregory & Sharma, 1997).

The protections of wildlife in Sabah are carried out based on the Sabah Wildlife Conservation Enactment 1997 enacted by the Legislature of the State of Sabah. An Enactment to make provisions for the conservation and management of wildlife and its habitats in the State of Sabah for the benefit and enjoyment of the present and future generations of the people of the State of Sabah (Sabah Wildlife



Conservation Enactment, 1997). Inside this enactment, there are few sections which specifically protecting the turtles. It is because the Hawksbill Turtle is listed as the totally protected animal in Schedule 1 Part I of the same enactment.



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