

# STATUS AND CONSERVATION OF SEA TURTLES IN THAILAND

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## ABSTRACT

Conservation attempts are being made for the four remain species of sea turtles in Thai waters, which are green turtle (*Chelonia mydas*), hawksbill turtle (*Eretmochelys imbricat*), olive ridley turtle (*Lepidochlys olivacea*) and leatherback turtle (*Dermochelys coriacea*). Green and hawksbill turtles are abundant in the Gulf of Thailand, nesting activities occurs all year round with a peak from May to July. Olive ridley and leatherback turtles are found at the Andaman Sea coast of Thailand, their nesting season is a short period between October and March. Populations of the sea turtles in Thailand have been found drastically declined, which more seriously for the olive ridley and leatherback. The declination caused by several factors. Laws and regulations have been registered in order to conserve sea turtle. Public information on sea turtle biology and conservation have been conducted to increase public awareness.

## STATUS AND THREAT

Five species of sea turtles have been recorded in Thai waters; leatherback turtle (*Dermochely coreacea*), green turtle (*Chelonia mydas*), hawksbill turtle (*Erethmochelys imbricata*) olive ridley turtle (*Lepidochelys olivacea*) and loggerhead turtle (*Caretta caretta*) Phasuk and Rongmaungsart, 1973). There are two main nesting sites of sea turtles in Thailand which are;

In the Gulf of Thailand, nesting sea turtle occurs at Khram island (Fig. 1). The island located at the inner Gulf of Thailand, Chonburi Province. It is the important nesting area for

green and hawksbill turtles. No other specie has been recorded in this area. Nesting green and hawksbill turtles occurs throughout the year with a peak from May to August (Mananansap and Charuchinda, 1994). The whole island is occupied by Thai Navy, entering the island is prohibited. Natural predators are mainly by lizards and ghost crabs. The main problem affected to sea turtle populations in the Gulf of Thailand are the heavy fisheries activities.

The beaches are patrolled the turtle eggs are removed to the hatchery at the Navy base to avoid the predators and erosion of the beach. The baby turtles are rearing for a period of times before released to the sea (Monanunsap and Charuchida 1988).

In the Andaman sea coast and adjacent islands of Thailand (Fig. 1), four species of sea turtles had been recorded nesting in this areas. The olive ridley and leatherback turtles are landing along the coastline of Phuket and Phang-nga provinces while the green and hawksbill turtles are found in the remote islands. They were recorded nesting along the beaches of Surin and Similan Islands. Nesting season of leatherback and olive ridley turtles found a short period during October to March (Chantrapornsyl, 1992b). The nesting areas along the Andaman sea of Thailand can be separated to 4 major nesting sites. 1) Phrathong island, located at the northwest of Phang-nga Province 2) Thaimuang beach, which is located along the western coast of Phang-nga Province. 3) Phuket island: Sea turtle nests at the beach along the west coast of Phuket island.

The number of leatherback and olive ridley turtles are seriously declined, caused by many factors. The nature predator are the beach crabs and dogs. The main threats to sea turtles in this area are include the fishing activities, housing and hotel development egg poachers are the one serious problem. The incidental catches of turtles in gill nets and long-line hooks are also problem here.

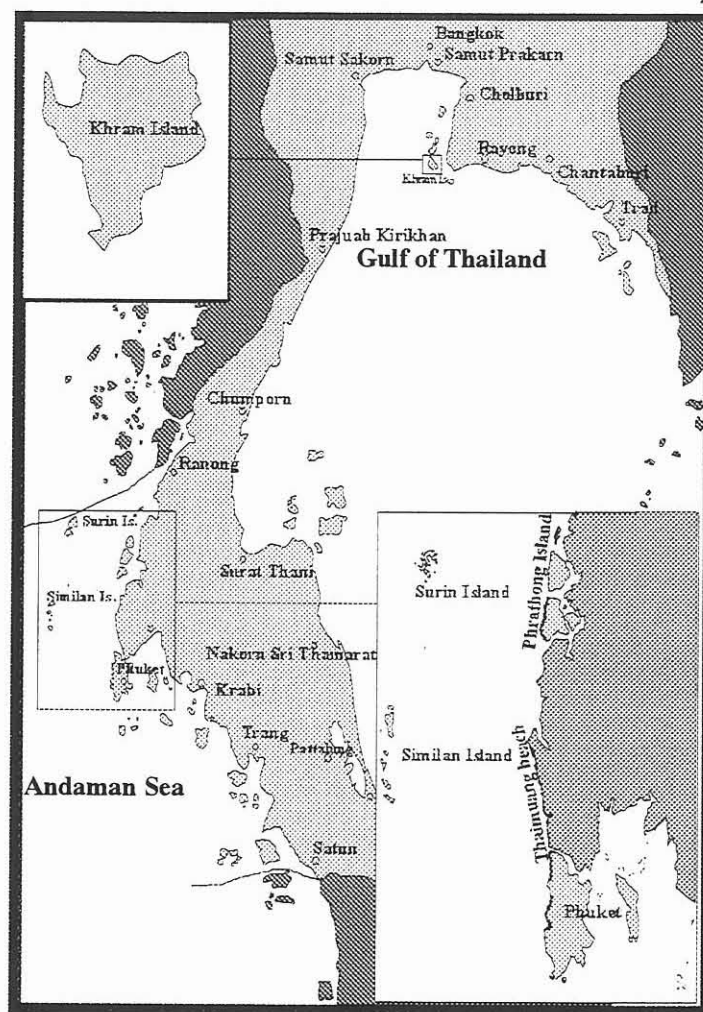


Fig. 1. Map of the coastline of Thailand shows nesting areas of sea turtles of Thailand

The beaches also are patrolled all years against the poachers. The eggs are removed to the hatcheries which is on the selected area of the beach. About 50% of the hatchlings be released directly to the sea, and the rest are transferred to the head-started programme at Phang-nga Province and the Phuket Marine Biological Center.

### LAWS AND LEGISLATION

Awareness of declination of sea turtle population in Thailand lead to raise serious attempts to conserve sea turtles. The sea turtle conservation project has been conducted at Phuket Marine Biological Center since 1971 (Phasuk, 1992; Phasuk and Rongmuangsart,

1973) follow by establishment of sea turtle conservation station at Man-Nai Island in the Gulf of Thailand. Since then, biology of sea turtle have been studied. Sea turtle nesting sites were protected and some areas have been declared as National Park in order to better protect. Laws and regulations have been registered including educational and campaign are provided to public. Many laws and regulations have been conducted and strictly enforced. The protection of sea turtles was officially implemented as follow:

- ◆ Ministry of Agriculture and cooperative Enactment 1947: Sea turtles have been listed as protected animal. Kill of the turtle and eggs collecting are prohibited.
- ◆ Fisheries Act 1972: commercial fishing within 3 kilometers of the coastline was prohibited.
- ◆ Ministry of Commerce Enactment 1980: The export of sea turtle was prohibited.
- ◆ Conservation and protected of living resources Enactment 1992, Act No. 19: Collecting of sea turtles, their products and carcasses are prohibited.
- ◆ Thailand has been signed up to CITES member in 1983.
- ◆ The use of Turtle Excluder Device (TED) in shrimp trawling have been enforced in 1996.

### **PRESENT CONSERVATION INSTITUTES**

There are many agencies responsible for implementation and enforcement of sea turtle conservation in Thailand including:

- ❖ Sea turtle conservation station, Man-Nai Island, in the Gulf of Thailand. The station belongs to the Department of Fisheries. The station responsible for research and conservation of green and hawksbill turtles in the Gulf of Thailand.
- ❖ Sea turtle conservation programme at Khram Island, Chonburi Province and sea turtle conservation programme at Tublamu, Phang-nga Province, These project are conducted

by the Royal Thai Navy the aim is protect hawksbill and green turtles at Khram Island in the Gulf of Thailand and the Similan Island, in the Andaman Sea.

- ❖ Phuket Marine Biological Center (PMBC) is belongs to the Department of Fisheries. The Center responsible for research and comservation in the Abdaman Sea.
- ❖ Kao Lumpee - Thaimuang Beach National Park: Located at west coast of Phang-nga Province. Sea turtle has been protected by the National Park authority.
- ❖ Sirinarth National Park, Phuket Island The National Park authority together with Phuket NGO group try to protect the leatherback and olive ridley turtles in this area.
- ❖ Non-governmental organizations: NGO groups concerning sea turtle conservation in Phuket, Thailand.

#### **FUTURE RESEARCH AND MONITORING.**

- ❖ Long term monitoring survey nesting population
- ❖ Tagging and satellite tracking programme
- ❖ Study on the inter-nesting behaviour and feeding behaviour.
- ❖ Study on incubation and sex ratios of sea turtles.
- ❖ Study on genetic population of sea turtles.
- ❖ Awareness building and education programme

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