

FUTURE PLAN FOR THE SEASTAR2000

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Planning

In 2000, we have discussed 5 subjects on the workshop in Kyoto for the green turtle research and conservation to avoid by-catch by shrimp trawl net in Thailand. The subjects were as follows:

- 1) Tracking of post nesting adult females to understand the migration paths from nesting beach to foraging ground. The migration paths will be superimposed on the fishing ground of shrimp trawl, sea grass distribution, and environmental physical information such as water temperatures or surface current using GIS.
- 2) Sand temperature fluctuation to monitor the nesting condition such as, sex ratio, success of hatchling and escapement from nesting beach to the sea. They are all depended on the sand temperature in the nest.
- 3) Correlation between shrimp fishery and species of shrimp around the Gulf of Thailand. They are useful to develop GIS system to avoid by-catch.
- 4) Correlation between sea grass density distribution and migration paths of green turtles since they eat mainly sea grass. The post nesting migration paths are thought closely correlated with the sea grass mat density distribution along the coastal zone.
- 5) Estimation of local population size based on DNA analysis of green turtles in the Gulf of Thailand.

In 2001, all of these scientific subjects will be continued by the similar method as tried in 2000.

Each research subject described above will be tried by each group consisting in several scientists under the collaborative supporting with Thailand and Japan and the results should be arranged until November 2001, when we have workshop.

- 1) The first subject, tracking of adult female turtles in post nesting periods, will be

carried out two different seas in Thailand; the Gulf of Thailand and the Andaman Sea using platform terminal transmitter (PTT). The satellite PTTs will be provided by Japanese scientists, although they cannot estimate available number of devices since there are no information of scientific fund to support this project. We hope to use 4 PTTs at least both seas. The scientists of PMBC and Mannai Island (MI) will participate the tracking work with the Japanese researchers of Kyoto University and Ocean Research Institute, Tokyo University (ORI).

- 2) The second subject, monitoring sand temperature using data loggers, will be tried by sea turtle researchers in Mannai Island and ORI, Matsuda and Tatukawa. The scientists of PMBC will support the work if necessary.
- 3) The third subject, research of shrimp trawl in the Gulf of Thailand, is consisted mainly of the data collection by fisherman along the coastal zone of the Gulf of Thailand, and will be carried out by two scientists, Wannakiat and Shiba.
- 4) The research of sea grass density distribution in the Gulf of Thailand will be tried by Komatsu, of ORI.
- 5) DNA analysis to distinguish the local population of green turtle is not yet tried. However this work will need to understand the migration pattern of each local population. The research plan will soon be discussed with Kongkiat (PMBC) and Kinoshita (Kyoto University).

In addition to these works, in 2001, we will test the different new devices such as the micro-CCD logger and the geomagnetic recording logger to attach on the carapace of sea turtles. This work will be carried out at first in the experimental big pond located in the Mannai island by Arai, Togawa and Mickmin. Finally, in the late of autumn in 2001, we will have the second workshop in Thailand.