

COLLABORATIVE RESEARCH WITH LOCAL FISHERMEN TO REDUCE
GREEN TURTLE BYCATCH IN UBATUBA, BRAZIL.

Berenice Maria Gomes da Silva¹
Bruno de Barros Giffoni¹
Fernando Siqueira Alvarenga¹
Geraldo de França Ottoni Neto²
Lucas de Oliveira Borsatto¹
José Henrique Becker¹

1- Fundação Pró-TAMAR. Rua Anthonio Athanasio, 273 – Itaguá- Ubatuba/SP-
Brasil.11680-000. curupira@tamar.org.br

2-ICMBio-Instituto Chico Mendes de Conservação da Biodiversidade.

Located on the southeastern of Brazil, the Ubatuba coast is an important feeding ground for juvenile *Chelonia mydas*, where turtles originating from multiple nesting areas, aggregate. It is therefore considered a “mixed stock area”. Since 1991, with the voluntary collaboration of local fishers, Projeto Tamar has already recorded 10,994 turtles incidentally captured in different artisanal coastal fisheries. Our results show that juvenile *C. mydas* were by far the most common species captured and that gillnets are the major source of mortality for this species in the region. Among the different types of gillnets used, we noticed that surface gillnets, kept close to the rocky shore, capture a larger number of green turtles, since they normally feed in nearshore habitats. Once entangled, the turtles drown and often die from forced apnea. In a survey conducted between 2007 and 2010, we recorded 154 fishermen using gillnets in the rocky shores in Ubatuba. This study aims to present an efficient strategy to mitigate green turtle bycatch in Ubatuba, as part of a collaboration between local fishers and Tamar researchers. According to Projeto Tamar’s studies and observations, *Chelonia mydas* reduce their activity level at night, resting under ledges in reefs and rocks. Comparing this information to the experiential knowledge of local fishers, that night fishing is much more productive than day fishing, we conducted a study between March 2009 and February 2011, aiming to reduce green turtle entanglement and mortality in surface gillnets, with little impact in the fishing activity.

This study compared the catch rates of targeted fishes and turtles in gillnets during daytime and nighttime fishing. The experiment was conducted setting the fishermen's own gillnets in traditional fishing sites. A total of 49 sets with 24 hours of duration each, were monitored through regular visits every four hours, where the total amount of catches and sea turtle bycatches were recorded. Green turtle captures were significantly higher during daytime while fish captures were significantly higher at night. Our findings were then presented in different fishing communities with the purpose of sharing the results and discussing a proposal to avoid gillnet fishing in shallow waters near the rocky shore, during the day.

Due to the difficulty of bringing all fishers together in a meeting to discuss the results, we have printed the results in A3 panels in order to share the outcomes of the meeting with fishers who were not able to attend. The proposed solution has been well accepted by fishermen, demonstrating to be an effective strategy to reduce green turtle mortality with minimal interference with fishing activity.

.