



Tips To Turn Tide in Favour of Endangered Sea Turtles -- Guide Gives Fishermen Advice on How to Catch Fish, not Turtles

NAIROBI/HONOLULU/BANGKOK, 2 August (UNEP) -- Fishermen who use large circular hooks baited with fish rather than squid may not only boost their catches, they may also significantly reduce the number of turtles killed and harmed in fishing gear every year.

Studies, using so-called "circle hooks" baited with mackerel, found that around 90 per cent fewer leatherback turtles and over 60 per cent fewer loggerhead turtles were caught compared to the use of traditional J-shaped hooks baited with squid.

Meanwhile the fishermen -- involved in the United States Atlantic longline swordfish fishery -- caught up to a fifth more swordfish when using the circle hooks and mackerel as bait.

The importance of testing new kinds of hooks and fishing methods as a way of conserving rare and endangered migratory marine turtles is highlighted in a new booklet called "Catch Fish Not Turtles Using Longline" compiled by the Honolulu, Hawaii-based Blue Ocean Institute.

It has been produced in collaboration with the United Nations Environment Programme's (UNEP) Regional Seas Programme and the Indian Ocean-South-East Asian (IOSEA) Marine Turtle Secretariat, as well as numerous fisheries and research bodies.

Sea turtles are among the most extraordinary and charismatic creatures on the planet. They are some of the world's great nomads, sometimes navigating thousands of miles between feeding and nesting grounds. Some turtles, like the olive ridley, have been around over 200 million years, once living alongside the dinosaurs. Revenue-raising tourism has been developed in some parts of the world, based around the unquestioned attraction to visitors of seeing turtles at first hand.

Klaus Toepfer, UNEP's Executive Director said: "We need to balance the legitimate economic needs of fishermen, including longliners, with the need to conserve the marine environment, including sea turtles. I am sure the tips and advice in this booklet can play their part in furthering the urgent need for more responsible fishing that respects the natural world upon which we all depend."

"If we are to ensure the survival of sea turtles well into the future, action needs to be taken now to protect them in the oceans and at nesting sites. The tragic

truth is that many species are in precipitous decline. Some experts predict that leatherbacks and loggerheads may become extinct in the Pacific Ocean within two decades", he added.

Eric Gilman of the Blue Ocean Institute noted: "In the last few years, preliminary progress has been made to develop techniques that effectively avoid sea turtle capture, reduce injury to hooked turtles, and are acceptable to the longline industry. It should be possible to reduce sea turtle deaths in pelagic longline gear to negligible levels."

"The booklet highlights new techniques and tips that could, given greater support and genuine will within the industry, propel us towards this goal. However, the methods found to be effective and commercially viable in preliminary trials in one longline fishery may not be the answer in other fisheries. So we must step up research into other techniques and technologies, otherwise we face losing sea turtle species and fishermen risk losing their livelihood", he added.

Douglas Hykle, Coordinator of the Bangkok-based Indian Ocean-South-East Asian Marine Turtle Secretariat, said, "Sea turtle numbers have declined dramatically in recent years due to the combined effect of many threats, including mortality in fishing gear. Whether some populations survive the next few decades is an open question."

The 2002 World Summit on Sustainable Development set an ambitious target of 2010 for achieving a significant reduction in the current rate of loss of biodiversity, and called for the establishment of a representative network of marine protected areas by 2012. Much work still needs to be done to achieve these goals, which are directly relevant to sea turtle conservation.

"An international approach is critical to deal with the conservation of highly migratory species and management of threats that occur over broad areas", said Mr. Hykle. "This multilingual booklet presents the current knowledge of how to address the threat to turtles from capture in longline fishing gear, and serves as a model to tackle other priority threats through collaboration with industry, managers, scientists and other groups."

Background

Hooks and Deep-Sea Setting

Many longline fisheries traditionally use so-called J-shaped hooks. Tests have recently been carried out on larger circle-shaped hooks, baited with mackerel rather than squid as outlined above, with promising results. Tests indicate that the wider the hook, the smaller the chance of a turtle being able to swallow it.

Furthermore, when hard-shelled turtles, like the loggerhead, are hooked, the turtles tend to deeply swallow conventional J-shaped hooks, whereas circle hooks tend to hook them in the mouth making it easier to remove the gear and save the animal.

Other preliminary studies from Australia and Hawaii indicate that fishermen who set their lines and hooks below 40 metres deep may catch just as much fish but far fewer turtles.

The booklet says that using large circle hooks and setting gear below 40 metres

"appear to be solutions for some fisheries", but adds: "More research and commercial demonstrations are needed, especially for fisheries where large hooks and deeper setting are not economically possible."

Fish or Squid Bait

Some studies indicate that use of fish bait can help conserve turtles. The booklet notes: "Fish appears to come free of the hook while being progressively eaten by a turtle in small bites. Squid holds much more firmly to the hook and tends to cause more turtles to ingest the hook with the squid." Because definitive research has yet to be conducted on this, the booklet suggests that fishermen compare bait types to determine which ones maintain catch rates of target fish and catch fewer turtles.

Other Ideas

Scores of other low and high tech devices and techniques are being studied, including deterrents designed to scare turtles away from hooks and lines. These include the deployment of fake, fibreglass sharks, light emitting diodes, acoustic devices or "scarers", and dying bait blue.

Other kinds of hooks are also being tested including ones with bimetallic strips that conceal the point of the hook only at deeper, cold water temperatures, rather than in the warmer, shallower waters where turtles are generally found.

Releasing Capture Turtles

The booklet also gives eight key tips on how to handle a snagged turtle in order to maximize its chances of survival. These include advice on how to remove an ingested hook and how to treat a turtle until it can be released.

Notes to Editors

Fish Not Turtles Using Longlines', is available online at <http://www.wpcouncil.org> and www.ioseaturtles.org.

It can be ordered free of charge in English, Japanese, or Spanish from Blue Ocean Institute, 2718 Napuaa Place, Honolulu, Hawaii 96822, United States; e-mail: ericgilman@earthlink.net.

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