



Fishers for bait fish. © WOLCOTT HENRY 2001

## Increasing Fishers' Awareness Leads to Decrease in Turtle Bycatch

Fishers themselves are at the front line of the fisheries bycatch battle. Increasing their awareness has already been demonstrated to have noteworthy positive results when it comes to reducing bycatch of sea turtles. The government and the fishing industry of Ecuador undertook a major Fishermen's Education Effort starting in 2003 by joining forces with the Inter-American Tropical Tuna Commission (IATTC), the U.S. National Oceanic and Atmospheric Administration (NOAA), WWF, The Ocean Conservancy, and Ecuadorian fishworker cooperatives and environmental groups. The program focuses on deriving solutions that will allow fishers to continue to earn a living from the ocean, while simultaneously protecting the marine environment for the long term. The program consists of four major components:

1. Replacement of J-hooks with circle hooks and testing of their efficacy in reducing sea turtle mortality
2. Provision of tools and training to fishers in techniques for releasing sea turtles
3. An observer program to document the results
4. A continuous communications and outreach program to the fishing community to explain the problem and the proposed solutions, to garner their feedback, and to evaluate the performance of the effort and the gear

Over 70 observer trips were completed during the 2003–2004 Ecuadorian tuna-fishing season. The results showed a significant reduction in the hooking rates of sea turtles through the introduction of circle hooks, as well as a significant decline in the types of hooking that lead to higher post-hooking mortality. It is estimated that the combined effects of both those factors could lead to reductions in overall mortality of 70 percent to 90 percent. Attitude changes among fishers, resulting from the outreach program, are expected to generate even further reduction in sea turtle mortality.

The demise of leatherbacks and of other species of sea turtles in the American Pacific in the past two decades has become one of the most critical global issues in sea turtle conservation, and fisheries have doubtless been a major contributing factor in the declines. Demonstrating that fishers can be a positive force in helping to reverse these downward trends, this successful pilot effort has now grown to other American Pacific countries, including Colombia, Costa Rica, El Salvador, Guatemala, Mexico, Panama, and Peru with potential for replication in other regions of the world.



Drift nets are a critical hazard that can cause death by drowning to sea turtles and other marine life. © ERIC LEONG

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