Bycatch reduction

A cooperation with fishermen to eliminate WASTEFUL practices that threaten marine life

The facts

Bycatch, the incidental capture of “non-target species” is a major fisheries management problem, wasting time and substantial money in damaged gear and inefficient fishing methods. It’s also one of the greatest and most pervasive threats to life in the oceans, wasting a valuable natural resource and causing dramatic declines of many marine species. Fishermen and conservationists share the goal of reducing bycatch.

• A significant portion of all animals caught in fishing gear are thrown away as bycatch — amounting to millions of metric tonnes of marine life wasted each year.
• Over 300,000 small whales, dolphins, and porpoises die from entanglement in fishing nets each year, making bycatch the single largest cause of mortality for small cetaceans and pushing several species to the verge of extinction.
• As many as 250,000 endangered marine turtles, including loggerheads and critically endangered leatherback turtles are caught annually on longlines set for tuna, swordfish, and other fish.
• 26 species of seabird, including 17 albatross species, are threatened with extinction because of longlining, which kills more than 300,000 seabirds each year.
• 89 per cent of hammerhead sharks and 80 per cent of thresher and white sharks have disappeared from the Northeast Atlantic Ocean in the last 18 years, largely due to bycatch.
• Shrimp trawlers catch as many as 35 million juvenile red snappers each year in the Gulf of Mexico, enough to have an impact on the population.

An opportunity for fishermen, exporters and importers to mitigate the main current threat to marine turtles.

WWF addresses these threats in a comprehensive program working with communities and their livelihoods, collaborating with the industry, and influencing policy at a national and international level to restore a harmonious relationship between society and the oceans.

Fishermen can modify current practices in order to significantly reduce bycatch. WWF’s SmarGear competition invites fisherfolk to submit their solutions to bycatch. Exporters, importers and consumers rely on sustainable sources of marine products. Market driven incentives can catalyze the adoption of fisheries best practices and an ecosystem-based approach.

Tackling bycatch mortality of marine turtles in the Eastern Tropical Pacific

The Eastern Tropical Pacific is home to the most critically endangered population of leatherback turtles. These turtles declined by more than 90% over the last 20 years. Bycatch mortality needs to stop for the breeding adults to recover. Bycatch reduction will also benefit the endangered Eastern Pacific green and Olive Ridley turtles. Reducing bycatch in this region is a priority for WWF.

The long-line fishing industry a collaborative win-win solution to marine turtle bycatch

Bycatch reduction is a concern to fishermen and conservationists, who are collaborating currently toward finding joint solutions. Incidental mortality of marine turtles illustrates the need for the adoption of an ecosystem-based approach in Latin American fisheries. This partnership is the foundation to make significant progress toward sustainable fisheries for the benefit of this and future generations. Overfishing and the collateral impact on other species endanger food security in poorer countries.

This largest marine conservation project ever in the Eastern Tropical Pacific is based on a relationship of trust, a common goal and an active and committed engagement by all partners. The Inter-American Tropical Tuna Commission (IATTC) and WWF partnered with industrial and artisanal fishermen, exporters, fisheries agencies and other conservation organizations to build a strong, regional network that so far encompasses eight nations.

Our working principles for bycatch mitigation in Latin America:
• No one wants to catch turtles.
• No one wants to put fishermen out of business.
• Adoption of bycatch reduction measures by fishermen is voluntary.

Consumer choices are a major driver of marine fishing practices. An increasingly aware and critical society demands products that do not harm the integrity of marine life. Marine turtles, dolphins, seals, seabirds, corals, non-target fish species, such as juvenile fish, fish with little commercial value and others... billions of unwanted animals are caught every year by fishing boats, then discarded dead or dying back into the ocean.

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Data courtesy of MINAE

Project countries

Central America
North America
South America

This international effort is driven by a strong partnership between the fishing industry, governments and conservation organizations.

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Fishing crews are trained in correct on-board handling of hooked turtles that improves their chances of survival upon release. Strengthening marine stewardship among fishermen is a critical component of improving sustainability.

Current progress (2004-2005)

• More than 60,000 J-hooks replaced by large circle hooks and experiments with onboard observers ongoing in all countries.
• More than 300 fishermen have participated in experiments and many more in training workshops.
• A network of fishermen, exporters, government agencies and conservation organizations is established and includes eight countries.
• Working relationships established with NOAA for in-water experiments and with the world’s biggest fishing gear provider, the Norwegian company Mustad, that donated 200,000 circle hooks to the project.

Your engagement is welcome

Mitigation of turtle bycatch is a bridge to marine stewardship and ecosystem-based fishery management. You can be part of this profound transformation of a regional fishery and help secure marine resources and healthy oceans for this and the future generations. Contact WWF for information on how to support this project.

Reduction of bycatch in Latin America through gear modifications, best practices and policies

WWF partners test and promote the adoption of gear modifications, and the adoption of best fishing practices to reduce the capture of marine turtles in pelagic long-line fishing operations. In addition, WWF is promoting bycatch reduction in regional fisheries policies through IATTC’s bycatch related resolutions and a Memorandum of Understanding between WWF and OSPESCA (Central American Fisheries And Aquaculture Organization).

Large circle hooks reduce turtle catch rate by over 70%. The replacement of J-hooks with large circle hooks is offered to fishermen as part of their engagement in bycatch reduction experiments.

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Our challenge in the Eastern Tropical Pacific:

• Over 200 million hooks per year set by industrial longliners.
• 1,229 industrial longline fishing vessels larger than 24 m.
• More than 4,000 longline fishing vessels smaller than 24 m, including artisanal boats and thousands of outboard motors boats that fish with longlines about 16,000 in Ecuador alone.

Upon reaching a critical mass of fishermen who adopt the bycatch reduction measures, a snow-ball effect is expected to transform the total longline fishing sector in the Eastern Tropical Pacific. We encourage fisherman-to-fisherman transfer of best practices and of the ecosystem-based approach to fisheries.

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