YoD Newsletter August 2008

Bycatch

Bycatch


© Miguel Iniguez

Bycatch is the unintentional killing of dolphins and other species by fisheries in the process of fishing for other species. Some experts also consider reproductively immature juveniles of the target species to be bycatch.

The biggest threats to marine ecosystems globally are destructive and unsustainable fishing practices. By overfishing target fish stocks, fisheries are destroying the biodiversity of the oceans and an important resource on which millions of people depend for their livelihoods.

Unintentional death of whales and dolphins in fishing gear is pushing some cetacean species to the brink of extinction. Cetaceans are one of the more high profile victims of accidental capture in fishing nets. A new study recognized by the International Whaling Commission (IWC) reveals that about 300,000 whales, dolphins and porpoises are annually killed through entanglement in fishing gear. This makes bycatch the leading threat to the survival of the world's 80-plus species of whales, dolphins and porpoises.

The bycatch of cetaceans is widespread, and can threaten dolphin and porpoise populations. Practically every dolphin species is affected to some degree. As an example, it is estimated that 179 Commerson’s dolphin were victims of bycatch in the coastal waters of southern South America between January 1999 and February 2000, making this dolphin perhaps the hardest-hit cetacean species in the region.

Around the world, bycatch is significantly exacerbating the threats posed by the commercial over-exploitation of the oceans. Pair trawling is a method of fishing implicated in numerous cases of bycatch. Huge nets (some can hold 10 jumbo jets) are towed at high speed by two fishing boats to catch fish such as sea bass, mackerel, tuna and others. However, these fish are also a main food of various dolphin species, which accordingly often follow the fish swarms. These dolphin species are then caught in the same nets and drown.

Dolphins can become entangled in commonly used fishing gear like gillnets, tangle nets, trammel nets, trawl nets and long lines. The animals usually receive cuts to their beaks, fins and flippers. Even if they are lucky enough to escape the nets, they can still die of infections and blood-loss.

Many cases of bycatch have been reported along the coastal areas globally. A recent study shows that the numbers of dolphins killed as bycatch has more than doubled over the last 5 years along the coast of southwest England. The problem is so severe that dolphins (and porpoises) could actually be wiped out from waters around the UK.

Some startling facts on bycatch of dolphins and whales

Hundreds of thousands of whales, dolphins and porpoises die every year as accidental bycatch
Some fishermen deliberately mutilate bycatch victims, attempting to destroy the evidence by making the animals sink.
Large pelagic trawl nets targeting horse mackerel in Ireland are known to catch white-sided, common dolphins and long fin pilot whales
Observers recorded 91 common dolphins caught in the trawl fisheries in southwest England between 2001 and 2003. During 2001 and 2002, total estimated bycatch mortality of coastal bottlenose dolphins attributed to mid-Atlantic gillnet fisheries was 86 and 69 animals, respectively
In U.S. fisheries, cetacean bycatch has been reduced by nearly two-thirds in the past decade, mainly through improvements in employed technology.

Tackling the problem

On a global scale, political will and increased funding for research on cetacean-friendly ways of fishing are needed, as well as the tapping of fishermen's creativity. Whales and dolphins should be protected without undermining the fishermen's survival. In view of decreasing fish stocks, alternative livelihoods need to be offered to many fishermen.
Knowledge of fish behavioral patterns may also allow harvesters to minimize encounters.
Focus public attention on the threat that nets and fishing lines pose to whales.
All marine mammal species have the capacity to respond to underwater sounds. In Canada large baleen whales such as humpback whales were shown to respond to low frequency, low intensity acoustic noisemakers developed to warn them of the net panels to which they were attached. The humpbacks responded to the alarms by investigating the net panels visually, or acoustically. The acoustic alarms significantly reduced the entanglements.
Concerns about bycatch have led fishermen and scientists to develop devices they can put on their nets to reduce unwanted catch. This has been successfully achieved for various dolphin species in most habitats; using acoustic pingers, sound emitting devices that keep dolphins away from nets.
The usage of pingers has helped reduce bycatch in some eastern Pacific tuna fisheries by 98 percent.
'Bycatch reduction devices' (BRDs) are devices inserted into fishing gear that allow unwanted species or endangered species such as dolphins to escape alive.
Modifying fishing gear and restricting the areas fished and periods of fishing are named as the traditional methods of bycatch reduction.