

Fishing Industry's Effects on Coral Reefs



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Blast Fishing

Fisheries often use extremely destructive methods in order to catch fish. One very common destructive fishing method is by the use of dynamite, often referred to as "blast fishing." (Caldwell, Fox, 2006). This involves the use of a bomb set to explode under water in a coral reef (World Wildlife Foundation). When the bomb detonates, it kills or stuns the majority of fish within its radius and the dead or stunned fish float to the surface, where they can easily be caught (World Wildlife Foundation). Unfortunately, the illegal practice of blast fishing is commonly used in over 30 countries and has caused major damage and loss of Coral Reef Ecosystems, including over 50% of reefs in Southeast Asia (Caldwell, Fox, 2006) (Eco-Reefs). Blast Fishing is particularly damaging because it shatters the reef structure, therefore, on top of all the fish and coral lost due to the initial blast, the damaged ecosystem is reduced to rubble (Caldwell, Fox, 2006). Corals require a solid structure upon which to rebuild themselves, and an environment with constantly shifting rubble and dust does not allow for this, commonly killing coral before they have time to develop and rebuild (Caldwell, Fox, 2006). It takes an estimated 100 - 106 years of recovery for a coral reef system to rebuild itself from the effects of destructive blast fishing (Caldwell, Fox, 2006).



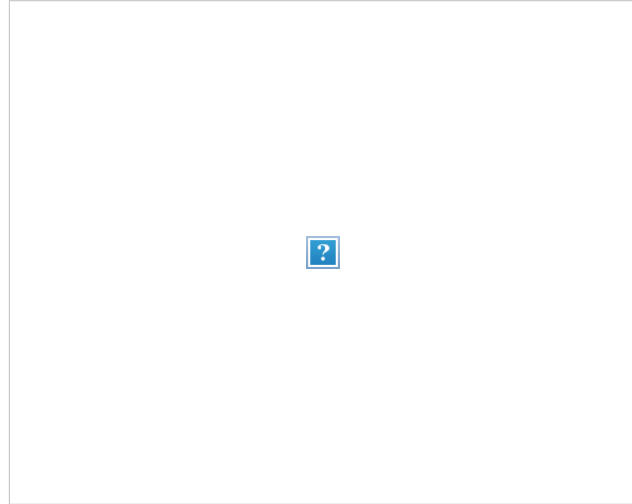


http://www.reefcheck.org/news/aceh_images/reefcheck_blastfishing_400.JPG

Cyanide Fishing

A different commonly used (but still destructive) method of fishing is called "cyanide fishing." Unlike blast fishing, cyanide fishing does not destroy the physical structure of coral reefs, but causes irreversible damage in other ways (Mak, Yanase, Renneberg, 2005). Cyanide fishing is a fast method to collect fish by poisoning them until they become stunned, making them easier to catch (Mak, Yanase, Renneberg, 2005). This illegal process (originally developed in 1962) involves crushing sodium cyanide, mixing the substance with salt water and storing it in bottles where it can later be brought underwater to corals and squirted into reef fish's habitat (Mak, Yanase, Renneberg, 2005). Cyanide fishing is commonly used for capturing fish for the aquarium industry, but its effects far more than just the fish caught. Sodium Cyanide is poisonous to coral polyps (an invertebrate comprising the majority of coral life) by killing off their source of food. The death of coral polyps result in coral bleaching, or the discoloration of coral colonies. Cyanide fishing is also a threat to surrounding marine life (Mak, Yanase, Renneberg, 2005). The sodium cyanide can poison and kill fish eggs, as well

The sodium cyanide can poison and kill fish eggs, as well as adult fish (Mak, Yanase, Renneberg, 2005). In some cases, cyanide fishing can result in physical damage to corals as well, because stunned fish hide and get caught in crevases out of reach, requiring fishermen to physically rip coral apart to capture the fish (Mak, Yanase, Renneberg, 2005).



<http://dynamic.protu.no/pictures/121/dyndigi14889.jpg>