

BYCATCH IS THE CATCH OF NON-TARGET FISH AND OCEAN WILDLIFE. ACCORDING TO SOME ESTIMATES, GLOBAL BYCATCH MAY AMOUNT TO 40 PERCENT OF THE WORLD'S 160 BILLION POUNDS OF MARINE CATCH, TOTALING 63 BILLION POUNDS PER YEAR, OR ALMOST 173 MILLION POUNDS EVERY DAY.

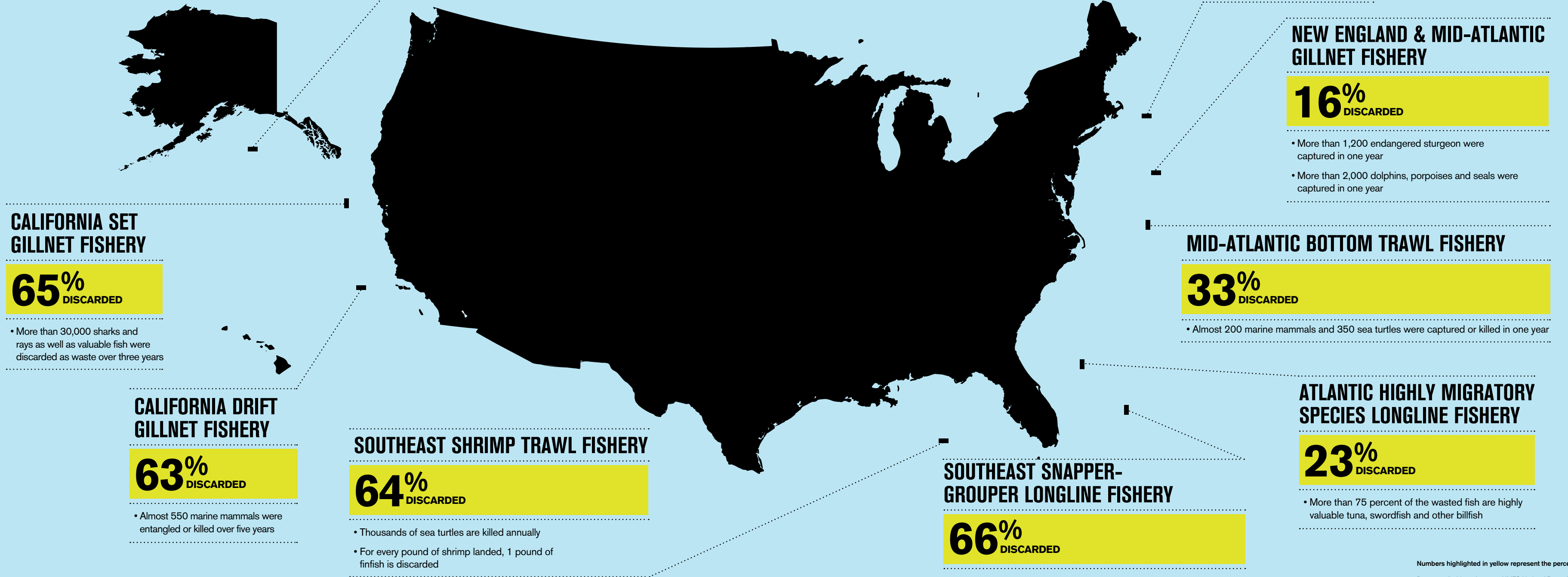
In the United States, despite strong management measures and conservation initiatives, the story is not much better. In fact, some fisheries discard more fish at sea than what they bring to port, in addition to needlessly injuring and killing thousands of marine mammals, turtles and sharks each year. Researchers throughout the 2000s estimated that, on average, 20 percent of U.S. catch is discarded every year, amounting to approximately 2 billion pounds of fish. Unfortunately, the severity of bycatch in many regions and fisheries still remains unknown. In some fisheries, fewer than 1 in 100 fishing trips carry scientifically trained observers to objectively document catch, while others are not even observed at all.

Oceana has identified nine fisheries that have some of the worst bycatch in the U.S., based on factors such as the amount and rate of discarded fish and the number of protected species that are harmed. These nine fisheries are responsible for more than 50 percent of reported U.S. bycatch, and yet bring in just 7 percent of U.S. landings. Not only do these fisheries discard valuable fish, but they injure and kill thousands of protected and endangered species every year.

While reducing bycatch can be challenging, it is a solvable problem. Essential steps include: accurately documenting all catch (whether brought to port or discarded at sea), setting scientifically based catch limits for target and non-target species that result in fishing closures if exceeded, and making every effort to actually avoid bycatch with improved fishing technologies. Reducing bycatch will not only save thousands of sea turtles, sharks, dolphins, whales, seals and birds, but it will also help to rebuild overfished populations and maintain healthy ones into the future.

CORRECTION: This report referenced a bycatch rate of 40% as determined by *Davies et al. 2002*, however that calculation used a broader definition of bycatch than is standard. According to bycatch as defined in this report and elsewhere, the most recent analyses show a rate of approximately 10% (*Zeller et al. 2017; FAQ 2018*).

NINE OF THE DIRTIEST US FISHERIES



Numbers highlighted in yellow represent the percent of total catch discarded.

Data compiled from the 2014 NMFS National Bycatch Report unless otherwise noted. Bycatch estimates for the two Pacific fisheries were derived from recent observer data. See full report for complete citations.



THE OCEANA APPROACH

For more than a decade, Oceana has advocated to reduce bycatch and bycatch mortality in the U.S. Oceana works fishery-by-fishery, as well as at the national level, to promote the Oceana Approach to bycatch: count all catch (including bycatch), cap bycatch using science-based limits, and control bycatch through effective management measures that will ensure bycatch limits are not exceeded and that bycatch is reduced over time.

RECOMMENDATIONS

COUNT EVERYTHING, EVERYTHING COUNTS

Everything that is captured, even if discarded, should be counted and documented with accuracy and precision.

MINIMIZE DISCARDS AND IMPROVE SEAFOOD USE

Fishery Management Councils should develop innovative measures and proposals to further collaboration between fishermen so that the amount of wasted marketable fish is minimized.

ESTABLISH BYCATCH CAPS IN ALL FISHERIES

Bycatch limits for non-target fish, sea turtles, marine mammals, seabirds and depleted shark populations must be based on scientific information. Once these limits are reached, fisheries should be shut down for the remainder of the season.

IMPLEMENT ECOSYSTEM-BASED MANAGEMENT

The National Marine Fisheries Service must account for the cumulative impacts of fishing activities on all protected species when authorizing additional injury and mortality across different fisheries and regions of the country. The detrimental impacts of bycatch on habitat and the amount of forage fish that are in an ecosystem must also be accounted for.

DOCUMENT CATCH WITH STATISTICAL ACCURACY

Fishery Management Councils must document bycatch consistently and must produce accurate and precise bycatch estimates. Increased resources must be dedicated to fund higher levels of observer coverage to ensure that catch limits and bycatch caps are not exceeded.

PROMOTE CLEAN GEAR

When possible, fisheries should transition to cleaner, more selective fishing gear and eventually prohibit harmful fishing methods with high bycatch.

IMPLEMENT BYCATCH REDUCTION INCENTIVES

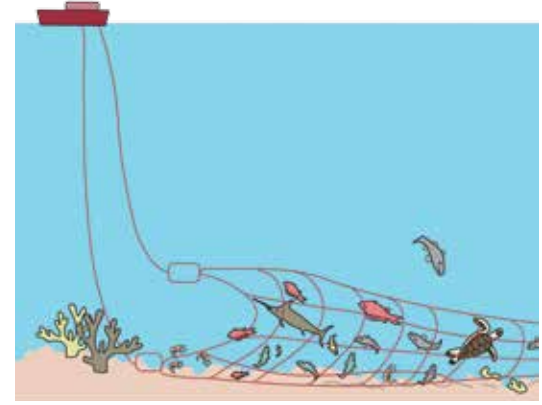
Fishery Management Councils must encourage fishermen to reduce bycatch by creating incentives within Fishery Management Plans to avoid hotspots, use cleaner gear, or install devices that deter marine animals.

For Oceana's full Wasted Catch report, please visit oceana.org/wastedcatch

DIRTY FISHING GEARS

Though some fishing methods are more harmful than others, researchers, fisheries managers and conservationists all agree that bycatch is highest in trawl, longline and gillnet fisheries. The nine fisheries that account for more than half of the nation's reported bycatch all use these harmful gear types.

TRAWL FISHERIES: BULLDOZING THE OCEANS

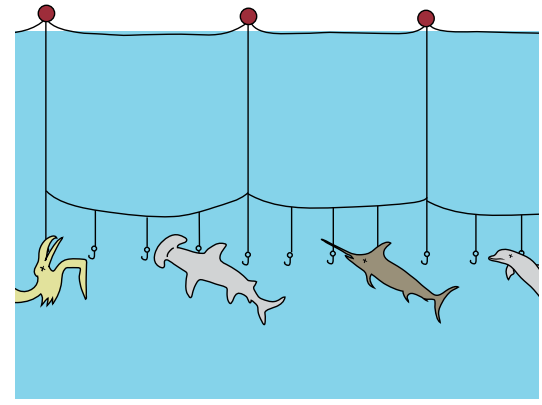


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Trawling is one of the most harmful fishing methods. Enormous nets as wide as a football field are dragged through the water or across the seafloor, capturing almost everything in their path while damaging vulnerable habitat. Every year, trawlers around the world drag nets over an average of six million square miles, impacting an area equivalent to twice the size of the entire U.S. Most fish that are targeted by trawls can be fished using other, more selective methods.

- Avoid bycatch using real-time reporting across fishing fleets.
- Minimize injury and deaths by using Turtle Excluder Devices in all trawls.

LONGLINE FISHERIES: THOUSANDS OF HOOKS

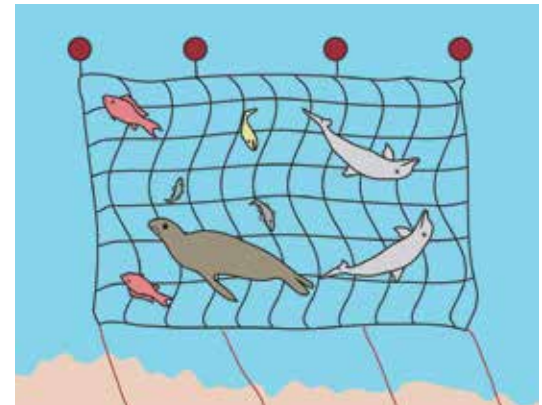


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Longline fishermen use lines that can extend for up to 50 miles, with thousands of baited hooks branching off from the main line. Unfortunately, the baited hooks attract a vast array of species that are not intentionally targeted, including diving birds. If an animal becomes hooked, it is often seriously injured or dead by the time the gear is retrieved. Using more selective gear instead of longlines is proven to reduce bycatch and improve fishing efficiency.

- Transition to cleaner, more selective fishing methods and develop more incentives to reduce bycatch.
- Assign enough observers to accurately and precisely estimate bycatch.

GILLNET FISHERIES: WALLS OF DEATH



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Gillnets are walls of netting that drift ("drift" gillnets) or are anchored ("set" gillnets) in the water, designed so that fish get stuck around their gills when they try to swim through. The netting can be up to two miles long and anchored hundreds of feet deep or left floating at the surface. Though researchers work to develop ways of reducing entanglement in gillnets, this gear has been banned on the high seas by the United Nations, as well as by many other countries.

- Eventually ban the use of drift gillnets in the U.S.
- In the meantime, avoid setting nets in bycatch hotspots and limit the amount of time nets can remain in the water before being retrieved.



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THE FACES OF BYCATCH

- The dolphins that die to bring you canned tuna
- The sea turtles caught to bring you shrimp
- The flounder thrown overboard to put seared scallops on your plate
- The endangered whales that become entangled for the sake of lobster bisque
- The millions of pounds of halibut or cod thrown overboard when fishermen have already reached their quota

Much of this ocean wildlife is dead or dying when thrown back overboard.



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