

Challenge to Fishing: Keep the Wrong Species Out of Its Huge Nets

By OTTO POHL JULY 29, 2003

The most common way to trawl for shrimp is to dredge the ocean floor. As a result, fishermen catch a lot more than shrimp -- 3 to 15 pounds of marine life, including fish, turtles and sharks, for every pound of shrimp. Most of that marine collateral damage, known as bycatch, is simply dumped back into the water, dead and dying.

"Imagine towing a huge net over the landscape, scooping up all the animals and knocking down all the trees, and then plucking out one species and throwing the rest away," said Elliott A. Norse, president of the Marine Conservation Biology Institute, a research and advocacy group in Redmond, Wash. "No one would ever say that's a good way to hunt raccoons," he said. Nor is the problem limited to shrimp. Worldwide, about 27 million tons of fish and sea life are caught as bycatch each year, according to the Food and Agriculture Organization of the United Nations. That is about a quarter of the total catch.

Experts say the practice endangers the survival of many species and threatens the ability of the oceans to support sustainable levels of fishing. But solving what might seem to be a fairly straightforward problem of waste has become emblematic of the struggle to regulate a fractured fishing industry. Strict regulations often encourage fishing fleets to move elsewhere or to reflag their vessels to nations that do not enforce such regulations. Enforcement is difficult in any event, because most bycatch is dumped at sea by fishermen who are rarely motivated to keep precise records.

Many people in the fishing industry agree that the problem of bycatch, although real, is often exaggerated.

"Some environmental groups are creating an aura of crisis, when in reality the opposite is true," said Daniel Cohen, chairman of the National Fisheries Institute Scientific Monitoring Committee, which works with the National Marine Fisheries Service on bycatch problems. Because of careful management, Mr. Cohen said, "we are seeing significant rebuilding of certain fish stocks." Such efforts have produced much progress, experts broadly agree. An example is the campaign in the early 1990's to make tuna "dolphin safe."

The yellowfin tuna tend to congregate under dolphins, tuna fishermen had long noted, so they encircled the schools of dolphins with nets called purse seines, trapping and drowning the dolphins while hauling in the tuna. Under pressure, the United States tuna industry virtually eliminated the problem by modifying its nets so dolphins could escape before the tuna was hauled aboard. The industry also reports success in reducing turtle bycatch.

Similarly, shrimp trawlers plying the Pacific near Oregon recently found a simple way to reduce unwanted catches in their nets. They adjust the trawl opening, so that the horizontal rope forming the top edge of the trawl mouth sits back several feet. "This seems to use the natural tendency of some fish to move upward as they start coming into the stream of the net," said Rod Moore, executive director of the West Coast Seafood Processors Association, a group in Portland that represents many fleets.

"Instead of hitting the top," Mr. Moore said, "there's clear space and they escape." Yet many familiar species continue to fall victim to bycatch. As many as 300,000 dolphins, porpoises and whales are killed each year in fishermen's nets, according to research published last month by members of the International Whaling Commission.

It is hard to stir enthusiasm to save lower profile but ecologically important species, said Jill Jensen, assistant director of the Gulf Restoration Network in New Orleans, a coalition of environmental groups that are working to reduce bycatch in the Gulf of Mexico. Rallying support to save unfortunately named species like the croaker and the grunt can be difficult, Ms. Jensen said, adding, "They're ugly, and they don't taste good."

Bycatch is also a problem for birds. About 100,000 albatrosses a year drown after being caught on the hooked bait put out by long-line fishermen. Dr. Carl Safina, president of the Blue Ocean Institute, a conservation organization in Amagansett, N.Y., says streamers hung from the stern will scare off the birds. "It's astonishingly cheap," Dr. Safina said, "but requires a combination of awareness and motivation on the part of fishing captains."

Although many areas of Alaska, Australia and New Zealand have rules to protect albatrosses, commercial fishing fleets often venture far into international waters to escape such regulations. In the distant Antarctic, the increased fishing of Patagonian toothfish, sold in America as Chilean sea bass, has become a significant cause of albatross mortality. The imports, often illegal and usually cheaper, undermine the competitiveness of fishermen who comply with regulations.

For example, the American shrimp industry has reduced its average bycatch, to 3 pounds from 10 pounds for each pound of shrimp, the Gulf Restoration Network, an environmental group based in New Orleans, said. But American fleets are reluctant to take further measures, fearing that any competitive advantage against foreign fleets will be eroded. That is a problem across the United States industry. Nelson R. Beideman, executive director of the Blue Water Fisherman's Association, a group in Barnegat Light, N.J., that represents long-line swordfish, tuna and mahi-mahi fishermen in the Atlantic, notes that the number of American boats has plummeted in his region.

"Most of our good people have already left," Mr. Beideman said. "They may still be fishing the same international waters. But they are fishing under foreign flags."

QUESTIONS:

1. What is "**bycatch**" as it relates to the fishing industry?

2. How many pounds of other marine life are caught with every pound of shrimp? What other marine life is caught?

2. Why are so many dolphins caught while trying to catch Yellowfin Tuna?

3. Why is bycatch also a problem for birds? Give an example