



Voracious. Ships called purse seiners can scoop up entire schools of tuna.

FISHERIES

Protecting the Last Great Tuna Stocks

Representatives of Western Pacific island nations put the finishing touches last week on a series of bold, new measures aimed at saving the world's last great tuna stocks.

Last May, the group decided to bar fishing in two huge pockets of international waters, creating the largest ever no-fishing zone. Fishing in the rest of the Western Pacific is regulated by the Western and Central Pacific Fisheries Commission, a treaty-based organization that includes 15 island nations and 10 countries that pay them for the right to fish in their so-called Exclusive Economic Zones (EEZs), which stretch 200 nautical miles from land. Meeting last week in Niue, a tiny island nation 4000 kilometers south of Hawaii, the ministers decided to add two smaller pockets of international waters.

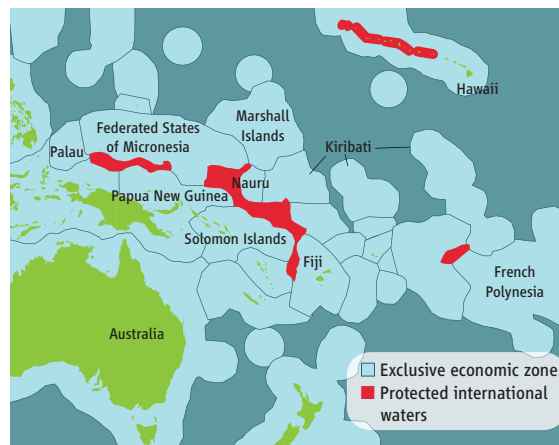
The result: four no-take areas totaling 1.2 million square kilometers stretching 7000 km from French Polynesia to Palau. Combined, the no-take zones are more than three times the size of California and dwarf the 360,000-km² reserve in the Northwestern Hawaiian Islands, whose waters contain far fewer fish.

"It's a big victory for us, because these pockets were being fished much more intensively than our own waters," says Sylvester Pokajam, managing director of the National Fisheries Authority of Papua New Guinea. "They were also used as refuges by ships that poach in our waters." Phil Kline of Greenpeace USA says the agreement "proves that an international process can actually achieve this" united front.

The measures, which take effect in January, would reduce by 10% the number of fishing days in these EEZs for most of the 225-ship international fleet of purse seiners, says Pokajam. The ships, which use huge nets to take out entire schools of tuna, account for three-quarters of the catch. The

new rules also oblige the ships to carry independent observers, restrict the use of floating platforms, called fish-aggregating devices, that disproportionately attract juveniles, and ban throwing dead fish overboard to make room for more valuable fish. All boats, even those that use hooks and lines, will be barred from fishing in the high-seas pockets.

"These are the broadest and most effective measures of any tuna fishery in the world," says James Joseph, a fisheries scientist who for decades managed the commission that regulates the eastern Pacific, and



Tuna sanctuary. Four pockets of international waters (red) will be permanently closed to all fishing in January to protect tuna.

they come none too soon. He says most of the world's tuna stocks are being fished at an unsustainable rate. "Bluefin is a catastrophe, bigeye and yellowfin are in trouble in most places, and so are some albacore," he says. "Only skipjack are still in good shape."

The Western Pacific's catch has gone from 500,000 tons a year in 1970 to 2.4 million tons in 2008. That's 60% of the world tuna catch, worth \$3.9 billion, with purse seiners accounting for most of the increase. As a result, in the past half-century, the Pacific

stocks have shrunk by 50% to 80%, except for skipjack. In the past decade, the fleets that depleted the tuna stocks in the Atlantic and the Eastern Pacific moved in, aggravating the problem. The spike in fishing created a bonus for the region's microstates, which receive an average of 5% of the value of the landed catch. For Kiribati, for example, the windfall provides a third of the government's revenue.

When fisheries scientists warned that these rates were not sustainable, the islands' leaders embraced their advice, including a recommendation for an immediate cut of at least 30% for bigeye and 10% for yellowfin. The fishing nations, including Japan, Taiwan, and South Korea, resisted, and a compromise solution was designed to lower the take by 10% a year over 3 years.

The United States has resisted even that reduction. Under a separate treaty that lumps together access fees and development aid, the U.S. government pays most of the access fees for the 40-ship U.S. fleet. The U.S. has agreed to abide by the new agreement but says that the treaty exempts it from the 10% reduction.

The island nations are not happy. "The United States has expanded its fleet from 11 to 40 ships in the past few years, mostly by allowing Asian ships to take the American flag," says Pokajam. "These ships, which don't even supply the American market, now fish without limits in our waters. The U.S. talks about conservation but behaves differently."

Several fisheries experts warn that the new measures probably aren't sufficient to stop the bigeye's free-fall. "It's a great leap forward, for sure," says Kelvin Passfield of the Pacific Ocean fisheries program of the International Union for Conservation of Nature. "But I'm afraid it's not going to be enough. If you don't cut 30% of the take when you need to, it usually means you'll have to cut 50% later."

Daniel Pauly, a fisheries scientist at the University of British Columbia, Vancouver, says fish species have survived only because some of their ranges have been inaccessible to fishers. "Now that fishing methods are much more effective, we need to create no-take zones so that we don't exploit the whole range of any given species," he explains. "In other words, a natural sustainability mechanism has to be replaced by a deliberate one to avoid species collapse."

—CHRISTOPHER PALA

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