

BLUEFIN TUNA: FAST, BUT MAYBE NOT FAST ENOUGH

CONSIDER THE TUNA: ITS NEAR-PERFECT HYDRODYNAMICS

and efficient propulsion, powered by warm-blooded muscles deep within the body, make it an outstanding swimmer. The largest ones top 70 kilometers per hour, or around 40 knots–fast for a power-

boat, and far faster than any known submarine. • But their size and tasty meatiness have put the most majestic of these fish on the road to extinction. The white meat you get in cans comes from the relatively abundant albacore, a small fish, typically less than 40 kilograms (red canned meat comes from the abundant skipjack, another small tuna). In contrast, bluefin (in Japanese, maguro or hon maguro, true tuna) has always been the rarest tuna. Adults can grow to more than 3 meters and weigh more than 600 kg. • The bluefin is Japan's first choice for sashimi and sushi. When these dishes became popular in Edo (Tokyo) during the 19th century, the choice cuts originally came from the less oily red inner muscles (akami); later the preference shifted to cuts from body sides below the midline (fatty *chūtoro*) and from the fish's belly (extra-fatty ōtoro). Exceptional bluefins have been sold for exceptional prices at Tsukiji's New Year's auctions. The record was set in 2013: US \$1.76 million for a 222-kg fish. That's nearly \$8,000/kg! • Japan consumes about 80 percent of the worldwide bluefin catch, far more than its own allowed quota, and to fill the gap bluefins are now imported to Japan either fresh, as air cargo, or gilled, gutted, and frozen solid. The latter category is increasingly composed of fish caught in the wild and then fattened in cages, where they're fed sardines, mackerel, and herring.

The demand is reaching new highs as the sushi craze has turned a Japanese favorite into a global status food.

The reported worldwide catch of three bluefin species is now about 75,000 metric tons a year. That's less than it was 20 or 40 years ago, but illegal catches and underreported landings, both widespread and constant for decades, remain substantial. A pioneering comparison of logbooks of Japan's tuna-fishing fleet (thought to be highly accurate) and tuna sold in Japan's principal fish markets showed at least a twofold discrepancy.

The principal fishing nations have resisted any deep cuts in their fishing quotas. Therefore, the only way to ensure long-term survival is to stop the trade in the most endangered stocks. In 2010, the World Wildlife Fund, fishery experts at the U.N.'s Food and Agriculture Organization, and Monaco asked for an international trade ban on the northern bluefin, but the proposal was defeated. Moreover, it might be too late for even a total fishing ban in the Mediterranean and in the northeast Atlantic to prevent the collapse of those bluefin fisheries.

And, unfortunately, it's very hard to raise bluefins from eggs on a sea ranch, as it were. The most successful Japanese operation, Kindai University's Fisheries Laboratory, has worked for some 30 years to master the process, but even so only 1 percent of the fish survive to maturity.

Declining catches and farming challenges have resulted in rampant mislabeling around the world, and particularly in the United States. There is a very high chance that you are eating another species rather than the bluefin that's listed on your restaurant's menu. But that wouldn't necessarily qualify as good news: The phony tuna on your plate may well be a cut of banned fatty red whale meat!

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