CONSIDER THE TUNA: ITS NEAR-PERFECT HYDRODYNAMICS

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!