

# One Fish, Two Fish; I Fish, You Fish

by Michael De Alessi

**C**anadians along the nation's coasts have long been familiar with widespread fisheries depletion and mismanagement of the marine environment, but two recently released studies have renewed North American interest in the oceans. First, the journal *Nature* reported in May that in the last 50 years, commercial fishing operations have wiped out 90 percent of the stocks of the world's larger, predatory fish species, including cod, halibut, tuna, and swordfish (Myers and Worm, 2003).

One case in point is the cod fishery off Eastern Canada's Grand Banks. Once one of the world's richest fishing grounds, it has been hovering near commercial extinction for decades.

The second study comes from the Pew Oceans Commission, a two-year NGO effort to survey the state of US oceans policy. The Pew report does at least posit some solutions, although the standard mantra inevitably begins with either "require" or "regulate." Sadly but predictably, neither study pays attention to *why* some species are conserved, yet others are not.

---

*Michael De Alessi is Director of Natural Resource Policy at the Reason Foundation ([www.reason.org](http://www.reason.org)) and author of *Fishing for Solutions* (London: Institute of Economic Affairs, 1998).*

This fundamental problem of fisheries management is what Garret Hardin termed "the tragedy of the commons." When fish left in the sea are simply fish left for someone else to catch, it is not surprising that depletion ensues. On top of that, the Canadian and US governments have layered on additional perverse incentives such as boat "buybacks" and subsidized loans that make it clear to fishermen that if they are unduly optimistic about the health of fish stocks, the government will be there to bail them out (Brubaker, 1999).

Thus, the oft-repeated phrase "too many people chasing too few fish" was tailor-made for Canada. Subsidies are the only way to explain the following quote from a recent article in the *National Post* (April 14, 2003) on the likelihood of a complete shutdown of the East Coast cod fishery. The article reports that: "Federal officials estimate there are only 900 workers left who are directly dependant on cod fishing. However, Newfoundland estimates there are still 15,000 people fishing and processing cod in that province, and Quebec puts the number at 4,000" (Beauchesne, 2003).

One of the most successful responses to fisheries depletion around the world—including in the United States and Canada—has been a form of privatization. Privately-owned marine

resources are better protected because a fish left in the sea will reproduce and grow larger. For example, one well-documented study that compared public oyster beds in Maryland to privately-leased oyster beds in Virginia found that leased beds were better managed and far more productive than their public counterparts (Agnello and Donnelley, 1975, pp. 521-33).

Since most fisheries are not confined to a specific area as oysters are, another form of privatization has been devised that involves creating rights to harvest a certain percentage of a total catch of fish. These fishing rights are variously known as IFQs (Individual Fishing Quotas), ITQs (Individual Transferable Quotas), or even IVQs (Individual Vessel Quotas), and they have successfully staved off many of the perverse incentives of the tragedy of the commons.

When fishermen own a right to a percentage of a total harvest, healthier fish populations translate into the right to catch a greater number of fish, and an increase in the value of that harvest right. Under an ITQ system, the rights are transferable, so owners can realize the gains from any improvements in the fishery, encouraging them to invest time, effort, and capital into research and stewardship. ITQs are not well-suited to every fishery, and they do not translate directly into private ownership of actual fish or habitat (which would create even stronger stewardship incentives), but they are a definite step in the right direction.

ITQs have only been applied to a limited number of fisheries in the United States and Canada (most notably the Alaskan halibut fishery and the BC Pacific cod/black rockfish fishery), but they are widespread in places like Iceland, New Zealand, and Australia. The Alaskan halibut story is an especially telling one.



The Alaskan halibut fishing season once lasted for almost ten months. When regulators decided that overfishing was a problem, they began reducing the length of the fishing season. Before long, however, the season was down to 48 hours, with almost no change in the amount of fish caught. The motivation to catch as many fish as possible, as quickly as possible, remained, and so ingenuity and technology overcame restrictions.

The halibut season is once again measured in months thanks to an ITQ-style system. Nevertheless, ITQs have met with strong opposition in the United States, as evidenced by a 5-year Congressional moratorium on any new ITQs programs imposed in 1997. The moratorium has now expired, but fisheries managers are waiting for Congress to explicitly authorize tradable quotas before they move forward.

Critics are quick to point out that the Alaskans haven't invested very much in conservation. However, the rights to fish in Alaska are legally revocable at any time, and antitrust laws make it difficult for fishermen to cooperate. In New Zealand, on the other hand, rights to fish are certifiable property rights, and the kiwis have developed innovative quota-owning management groups that invest heavily in fisheries science and enhancement, and tend to fish conservatively.

After New Zealand switched to a system of fishing rights, the hoki (a flaky whitefish that is New Zealand's most important commercial fish species) fleet actually *turned down* an additional 50,000 metric tons of catch allowed by the government in 1993. New Zealand fish stocks are generally healthy, and the fishing industry pays the full cost of all

fisheries management services (that is, there are no subsidies to the industry). In contrast, the fishermen on Canada's Grand Banks and the US's George's Banks continue to clamour for increased harvests, despite severe depletion of what was once one of the world's richest fishing grounds.

Quota owners in New Zealand invest in conservation because those investments are capitalized into the value of the quota, which far exceeds any annual

### *Fishermen will not stand for catch reductions that don't also address the causes of depletion.*

return from fishing. The crucial difference between New Zealand and Canadian quotas is that the rights are more flexible and secure in New Zealand, so quota owners have found ways to increase their quota values. The only way they can do that is by increasing the expected future health and productivity of the fishery. Active trading and futures markets for fish quota in New Zealand discourage overfishing because the consequent long-term devaluation of the quota outweighs the short-term gain from any increased harvest.

The solution to overfishing is simple: catch fewer fish. The *Washington Post* reported that the authors of the *Nature* study were convinced that fishing reductions "would be difficult for fishermen initially, but they will see the gains in the long run." No doubt they are right, but as we have seen over and over again, fishermen will not stand for

reductions that don't also address the root causes of depletion.

No one wants to destroy the source of their own livelihood, including fishermen. Fish-finding sonar and wily fishermen are often made out to be the problem, but they could just as easily be the solution. This is exactly the case in New Zealand, where fishing rights are secure and the fishermen themselves press for conservation and restraint.

Fishing rights will be difficult to enforce in international waters, but even partial rights may make a difference. Bluefin tuna, for example, travel thousands of miles. But when tradable quotas for bluefin were implemented in Australia, the Australians soon contracted with the Japanese fishing fleets to allow more tuna to reach Australian waters.

Of course, tradable quotas are just one form of fishing rights, and they may not be well-suited to every fishery. What is well-suited to every fishery is the sense of ownership and the rewards for stewardship and conservation that such fishing rights convey.

### References

- Agnello, R.R. and Donnelley, L. (1975). "Property Rights and Efficiency in the Oyster Industry." *Journal of Law and Economics*. Vol.18.
- Beauchesne, Eric (2003). "East Coast Cod Fisheries Face Total Shutdown." *National Post* (April 14).
- Brubaker, Elizabeth (1999). "Cod Don't Vote." *The Next City* (January). Document available digitally at [www.nextcity.com/contents/winter98-99/14fish.html](http://www.nextcity.com/contents/winter98-99/14fish.html).
- Myers, Ransom A. and Boris Worm (2003). *Nature* 423 (May 15): 280-283.
- Weiss, Rick (2003). "Key Ocean Fish Species Ravaged, Study Finds." *Washington Post* (May 15). Available digitally at [www.washingtonpost.com/ac2/wp-dyn/A57139-2003May14?language=printer](http://www.washingtonpost.com/ac2/wp-dyn/A57139-2003May14?language=printer).