Goin' Fishin'

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In 2003, an international study, carried out over the previous 43 years, documented that dozens of ocean fish species, almost every commercially important type of marine organism, had been reduced to roughly 10% of the size that had existed in 1960, at the inception of the study. This incredible loss of all major fish stocks had occurred in spite of numerous attempts to protect them. The primary reason? Too many fishermen; too few fish.

Chronic overfishing together with the development of new technologies that increased efficiency, accounted for the dramatic depletion of these stock. Moreover, in spite of the continually decreasing availability of these species, their rates of loss, percentage-wise, have actually been increasing. The study revealed that conservation comes in a poor second when finances bite.

In the early 1990s, the European Union (EU), recognizing the problem, set directives for fleet reduction to try to protect jeopardized stocks. The 2003 study revealed that success had been disappointingly limited. Numbers of ships proved to have decreased only 5% over the previous 7-year period,

but technological advances actually allowed increased yields. Virtually every fish of large size can now be located and caught using sonar, radar and even satellite data. The 6 billion euro subsidy to fishermen had not helped. In fact, already in 2002, as billions of fish were still being discarded as by-catch, the original policy of the EU was abandoned and replaced by an altered one. The protective efforts were said to have been more damaging than beneficial. How could this have been after years of planning? And what new policies are now being conceived to replace the old ones?

As was true of the original plan, the altered policy, abandoned in early 2007, proved to have prompted fishermen to dump billions of dead fish back into the sea, contrary to intent. Well over a million tons of mostly dead fish were being thrown overboard every year! Almost all of the fish caught and returned to the sea had died in the crush of the net or during the sorting process on deck. They included specific fish species and young fish of all kinds that could not be kept because of quotas that had been set to protect them.

Fishermen argued that the strict limits gave them no choice but to discard much of the catch including low value fish, crabs and shellfish. The practice of throwing away low value organisms left room for more lucrative catches. In citing their decision to abandon the old policy, the EU commissioner for fisheries described the dumping as morally wrong, a practice that had to be discouraged. The new policy, to be adopted in 2008, will encourage fishermen to

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use recently developed techniques designed to cut back on the accidental catch of so many young, restricted and commercially worthless fish.

Officials admitted that they are trying to learn the lessons of “no discard” policies presently in operation in Iceland and Norway where fishermen dump only 4% of their catch. In European waters, up to 90% of the entire catch is sometimes thrown back by fishermen, particularly in the southern North Sea. Discarded fish include protected juvenile cod and plaice caught by trawlers using small gauge nets to capture the more lucrative sole. Similar practices are operative throughout much of the world.

New targets for the acceptable level of “by-catch” for each species will hopefully be able to drive down the dumping. However, fishermen demand compensation if they are ordered to bring everything they catch back to port. If the subsidy level is set too high, fishermen could see it as incentive to catch worthless fish, while if it is set too low, dumping could just continue, since these practices are difficult to police. These facts illustrate how difficult it is to legislate human behavior. Perhaps an equally important approach would be to educate fishermen on the long-term practical benefits of conservation, and the ultimate consequence of current practices, namely, collapse of the fishing industry.

So what are the potential solutions being contemplated? Instead of just discarding the dead by-catch, unwanted fish could be used in food or in products such as fish oil. The commissioner noted, “The sooner we bring this wasteful practice to an end, the better for fish stocks, the marine environment and the fishing industry.” New technologies being researched to reduce the unwanted fish caught in the southern North Sea include the use of underwater electric pulses to shock the fish which then shoot up off the sea bed. Some researchers believe that the bigger fish will move higher off the sand than juveniles, although this has not yet been

established. If so, it is reasoned that nets could be set at the depth to catch only adult fish, cutting back on the need to trawl the seabed which catches innumerable unwanted sea creatures ultimately to be discarded. Trawling also destroys the natural habitat, an even more serious offense. However, three problems can be anticipated. First, small, juvenile fish might be seriously damaged by such procedures; second, nothing is yet known about the consequences of this practice to long-term adult fish behavior; and third, more selective disappearance of adult fish would be expected to put a serious damper on reproduction.

Electroshock was once common practice used for the rehabilitation of mentally disturbed humans, but the irreversible damage done was often greater than any potential benefit that might have accrued. In the case of marine organisms, little is known about the long-term effects of electroshock on their vitality and behavior. Regardless of the laudable intentions or decisions ultimately to be made, mistakes are costly and may cause permanent damage to marine ecosystems. Strictly enforced legislation based on scientifically tested information that takes the greedy shortsighted nature of humankind into account may be required to overcome these difficulties. While action is needed as soon as possible, more unwitting mistakes that have deleterious effects cannot be tolerated. We need to recognize the value of the marine environment and preserve it and its inhabitants at all costs.

Considering our current knowledge, it seems that the only sure fire, rational, immediate solution would be to prevent fishing altogether. Only then can we guarantee that fish stocks will rebound. But for long-term solutions, we must recognize that to save the planet, we need to implement a dramatic decrease in the human population. Let’s hope we can do so with minimal suffering, by intentionally decreasing the birth rate rather than unintentionally increasing the death rate.