How to save a fishery: owning, renting, and expanding the circle of us

In fishery science, there’s a concept known as “the maximum sustainable yield.” That’s the magical maximum number of fish you skim off a stock without digging into the principal. Great idea but, apparently, very hard to actually hit — or, for that matter, not overshoot entirely. This concept is old as they come but somehow, as Krista points out, around 80 percent of the world’s fisheries are either overfished or fished to capacity. Why are fisheries so hard to manage?

You can’t really address this question without first unpacking the weirdness of its very phrasing. To begin with, there’s this idea, now accepted as rote, that natural resources need to be managed. Really, though, fisheries need people managing them like you need a slap in the face with a nice, ripe, week-old flounder. They were fine — better than fine — before people got their hooks in them. So let’s be honest: When we say “fishery management,” we’re really talking about managing people — about setting up the right structures, be they governmental, ethical, or religious, to guide behavior in a...
way that aligns with reality. And that explains why “fishery management” has such a legacy of failure: we’re managing a species — ourselves — that’s as complex and fickle as they come.

Back in the good old days, we had God-given mandates to guide our behavior. “Thou shalt not kill. Thou shalt not covet thy neighbors wife.” And so on. Nowadays, people talk about getting the economic incentives right. That’s because no one wants to squelch the market. The market, a.k.a. economic growth, is sacrosanct. And to some degree, it makes sense; everyone’s got to pay the rent. Without a market, no one’s paying for anything.

But getting the incentives right in fisheries has proven quite difficult. The story usually goes something like this: In the beginning, it was open to anyone — a fishing free for all, a Garden of Eden. If you had a boat and the will, the fish were yours. But the fish began disappearing. Regulations arrived, rules that seemed to do everything BUT limit the number of fish caught. In fact, they may have encouraged waste. Limits on what fishermen could catch per trip increased by-catch; they’d have to discard the excess. Sometimes it was malicious; fishers would reach their quota and keep on fishing in the hopes of catching more valuable fish. At the end of the day, they’d discard the lower quality stuff. (Here’s some footage from last year of a UK vessel doing that — “highgrading.” This video created an uproar in Europe.)

Limits on days at sea, meanwhile, encouraged a fishing frenzy. Fishermen didn’t take care. More by-catch, more habitat destruction, more hurried fishermen hurting themselves. And in all of this, even if fishermen knew they were destroying the stock, they had no incentive to hold back. If just one fish remained in the sea, they might as well take it. If not, someone else would.

These days, the movement in fishery management is toward catch-shares. The mantra is, “ownership promotes stewardship.” Catch shares are supposed to unravel these perverse incentives much the same way employee shares in a corporation theoretically encourage employees NOT to steal office supplies. Fishers “own” a percentage of the profit, the year’s catch. The better the stock is doing, the greater the share’s worth. That theoretically aligns self-interest with fish (self) interest, getting those tricky incentives all pointed in the right direction. Critics deride catch-shares as a “privatization of a public resource.” But, again as Krista pointed out, they seem to — very relatively speaking — work.

But private ownership can lead to a different kind of strangeness. The actual catch-share unit is called an “individual transferrable quota”, or an “individual fishing quota.” There are a limited number traded on an open market. Problem is, some deep-pocketed investor in Texas ends up buying all the IFQs in an Alaska fishery. He hires people to run his boats, exports his catch to the highest paying market, never visits the place, while locals can no longer fish their own waters. They’ve been bought out.

To avoid this, more and more catch-share systems include conditions — the fisher has to be from the community, s/he has to fish a such-and-such size boat, s/he has to hire local help, and so on.

But even the “ownership promotes stewardship” reasoning has some serious flaws. Economist Colin Clark wrote a famous paper in the 1970s in which he posited this scenario: Say a community owns a pod of blue whales. According to catch-share theory, they should “manage” the cetaceans sustainably. But from purely economic standpoint, sustainability makes no sense in this case.
Blue whales live too long — up to 80 years. Sustainability in this case would mean harvesting one whale every human lifetime, maybe even every 1.5 human lifetimes. You can’t pay the rent with that. No. Economically speaking, it makes most sense to kill all the whales now, sell the meat and blubber, and invest the earnings in the stock market. Then you can sit back and drink margaritas on the beach in Mexico.

And there’s another famous example of private ownership leading to a tragedy of the commons: the Dust Bowl. Many farmers plowing away, a dry spell, and the Plains turned to desert. On the flip side, there’s the counter example of public ownership working relatively well. Think the National Forest system. Would all those trees still be standing had the federal government not “managed” them in the public’s interest?

No. The best way to manage a natural resource — that is, manage the people itching to get at it — may have nothing to do with aligning economic incentives at all. Daniel Pauly at the University of British Columbia calls it “expanding the Circle of Us.”

(Quick background: Pauly coined the phrase “Fishing down the food web.” We’ve taken the big fish, the medium ones, and now we’re chasing the small ones — sardines, anchovies, even the krill. Soon we’ll all be eating jellyfish sandwiches, he says.)

Basically, if you’re in the Circle of Us, you’re no longer a resource or a stock. Something has changed; you now have an intrinsic right to exist. The argument then becomes about what’s right and wrong. (Thou shalt not...) This approach has its risks, of course. It can backfire. Al Gore may have done more harm than good to his cause by casting global warming as an ethical issue. No one likes to think that their lifestyle is immoral, even if it includes three SUVs and a McMansion with frosting on top. At best, hearing such proclamations annoys you. At worst, the laws of cognitive dissonance kick in and, instead of converting, you retrench and order more Hummers.

And yet, the Circle of Us argument has a certain elegance and simplicity. E.O. Wilson’s book “The Creation” attempts to bring all of Earth into the Circle of Us. I don’t know how successful he was, how many converts he garnered. But if you back up — and I mean back way up — you begin to see that the Circle of Us has, throughout history, steadily, inexorably expanded. You see that this idea that people, let alone anything alive, has an intrinsic right to anything is quite recent. Historians like to say that it arises in the Enlightenment, that it formed the bedrock of our Declaration of Independence. Yes, at that point, the Circle only includes white, landholding men, but at least the idea is in place, the principle. The value of a person does not depend on external factors, like who might have a bigger stick, but comes with his very existence. And from there, the Circle expands quickly.

In the 1800s, slavery is abolished. In the early 1900s, women fight for and get voting rights. In the middle of the century, the civil rights movement erupts. Silent Spring kicks off the environmental movement. That’s when the Circle begins expanding to other animals. Dolphin-safe tuna becomes de rigueur. They save people from drowning, for crissakes! Industrial whaling mostly stops — Japan and Norway continue to whale — not because of catch-shares or getting the incentives right, but because whales were suddenly in the Circle of Us. They were sentient, feeling, complex mammals, more like us than not, and it became morally reprehensible to kill them.

*Posted by Moises Velasquez-Manoff*
Boy, when I read “Why are fisheries so hard to manage?” I was about to blow my top. But then you wrote just what I was foaming about. Thanks for that, first. And secondly for such a cool-headed approach to the Circle of Us. I’ve been coming at it from the negative angle—the tendency of humans to divide, from each other and from other species, and then to use those divisions as levers to kill. And humans just don’t want to hear it. I hope they listen to this softer sell.