

On My Mind  
3/30/08

I've just finished reading the most disturbing book I've read in a long, long time. The book, published in 2007, is *The Unnatural History of the Sea* by Callum Roberts, a professor of marine conservation. It begins with descriptions of seas so full of fish as to be almost unbelievable - mullet crowding the sides of a boat so thickly that they could be speared without letting go of the spear shaft (at Palmyra, 1798); sea cows (now extinct) at all seasons of the year in great numbers and in herds (the Bering Strait, 1741); runs of salmon, shad and whitefish numbering hundreds of thousands of individuals (in France, 300 AD); salmon and cod so thick by the shore that one could hardly row a boat through them (Newfoundland, 1620); lobsters, some as much as 20 pounds, so plentiful that they were seldom eaten, but were used as bait (New England, 1620s); seas that abound with whales, swordfish, porpoises, killer whales (Gulf of Maine, 1709); otters, beavers, fish so thick with their heads above water (Chesapeake Bay, 1612); sturgeon and shad in such prodigious numbers that within the space of two miles, fishermen caught above six hundred sturgeon with hooks in one day, and more than five thousand shad with a single haul of the net (Chesapeake Bay, 1614); banks of oysters so extensive that they were a hazard to navigation (Carolinas, 1709); turtles gathering in colossal numbers (Caribbean, 1697); a sea so thick with very large turtles that it seemed the ship would run aground on them (Cuba, 1600's); 18-20 foot sharks in great schools (Cocos Island, 1790's) - not just along one coast, but around the world; not just one species but all manner of species; not just one year, but over several centuries. And each and every description is carefully foot-noted with its source - a letter, a diary, a journal, documenting when it was written, and by whom. An incredible wealth that, unfortunately, no longer exists, anywhere.....

Roberts also describes, in harrowing detail, the lengths to which fishermen, and the fishing industry as a whole, have gone over the past six centuries or so to capture this wealth. Not only has the fishing industry, having fished out near-by shores, been forced to go farther and farther afield to find fish - in early days, seeking new, unexplored areas; in more modern times, seeking out those places where restrictions have not yet been put in place (as is occurring even now) - but it has also had to go deeper and deeper into the ocean, as the marine life closer to the surface has been fished out, to where trawlers now literally scrape miles of ocean bottom of all coral, sea grass, rock formations and anything else that offers protection, a hiding place, to ocean dwellers, in the process sweeping up anything that moves in the search for fish. And the fisheries have had to be satisfied with smaller and smaller fish.

Modern technology adds to the "efficiency" of the fisheries industry in capturing what's left of the oceans living creatures - first with bigger and faster ships, larger and stronger nets, heavier and more efficient equipment, then with over-flying light planes and helicopters to sight distant schools of fish, and now with satellite positioning chips put into logs seeded around the ocean (logs are aggregating devices - fish gather under them for shade, attracting more and larger fish - enough, eventually, to make it a worthy

catch).

The by-catch - the fish, turtles, dolphins not wanted that are snared by fishnets - only add to the slaughter, says Roberts.

The problem is not confined to the U.S. east coast, where the cod fishery is now dead, nor to the U.S. west coast, where even now a collapse of the salmon fishery is said to be imminent. The problem is world wide - around every continent, in the middle of every sea, at every depth. Fish and marine mammals are being taken at a rate that cannot keep up with replenishment through natural breeding - not only because of the ruthlessness of the fisheries, but also, in part, because the fish, the turtles, the seals and whales and porpoises are no longer being allowed to grow to maturity and continue to lay eggs and to breed; because the breeding places themselves are being destroyed; and because harvesting is being done during breeding season, when and where fish and marine life are known to aggregate in large numbers.

Says Roberts, "The wholesale removal of marine life and obliteration of their habitat is stripping resilience from ocean ecosystems. Moreover, it is undermining the ability of the oceans to support human needs. Overfishing is destabilizing the marine environment, contributing to the spread of anoxic dead zones and the increasing prevalence of toxic algal blooms, for example. Nature's power to bounce back after catastrophes or absorb the battery of stresses humanity is subjecting it to is being eroded, collapsed fishery after collapsed fishery, species by species, place by place."

Roberts warns: "To recover the world's fisheries we must change the way we think about and manage oceans. For much of the last hundred years, fisheries management has been conducted as an arms race between fishers and regulators. Regulators make laws to restrain fishing; fishers think up ways around them. In most places fishers have kept one step ahead of regulators, and fish populations have fallen. Ultimately, if fishers win the race with regulators their industry will self-destruct. The best that managers can claim in most places is that they are slowing the pace of suicide. **Fisheries will become sustainable only when we set more modest catch targets and fish in ways that have less impact on fish habitats and other marine species.**" (emphasis added)

But Roberts does hold out some hope. He does not believe all species would be able to return to their original plenitude, but many could, over time, if changes are made now. He lists seven steps that must be taken: (1) reduce the amount of fishing - that is, decrease the total number of boats; (2) keep politicians out of the decision-making process - that is, limits should be set by scientists, not legislators; (3) replace catch quotas with limits on fishing effort, i.e., limit where, how long and with what gear a vessel can fish; (4) require fishers to keep what they catch - an incentive to adopt the best fishing practices; (5) use the best available fishing technology to reduce bycatch; (6) ban or restrict the most damaging fishing gear - like bottom trawlers; and, most importantly, (7) implement extensive networks of marine reserves that are off-limits to fishing.

Roberts believes that 20-40% of the ocean should be set aside in reserves (of which the proposed Marianas trench monument would be but a tiny fraction). "Doing

this," he writes, "will maximize returns to the fishing industry, provide adequate refuges for vulnerable species, sustain genetic variability in populations, and afford protection to the full spectrum of biodiversity....This is the degree of scaling up of protection that is necessary to achieve a turnaround in world fisheries."

If our children and our grandchildren are to continue getting food from the sea, that is what is necessary to make sure they can. It is a challenging list - one that must be taken up by every coastal "state" throughout the world if it is to succeed. Unfortunately, it seems to be a low priority on almost everyone's list.

Further information about the book can be found at: <  
<http://www.york.ac.uk/res/unnatural-history-of-the-sea/index.htm> >.

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Short takes:

Are there so many candidates for the position of non-voting Congressional delegate because the salary sounds tempting? Let's hope that the people of the CNMI honor Pete A - who has worked so hard and diligently to push the position through Congress - by electing him as the first delegate. As with the first CNMI governor, there is an opportunity here to set some precedents, to establish a model of performance for all who follow. But it will take someone of experience and integrity, as well as industriousness - all of which Pete A has shown he has in abundant supply.

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I observed a lot of laid-back drivers during my short stint in Hawaii in April - I had to drive since my daughter was in the hospital, and for numerous reasons, I ended up doing a lot of near-illegal lane switching, yet no one ever honked at me (well, only once!), no one yelled or gestured, I didn't add one scrape to the rental car - the drivers just politely faded back and let me in. It was amazing!

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With traffic lights going off all over Saipan due to power outages, it appears that some Saipan drivers, at least, are also pretty laid-back, letting cars in from the left and right of them even without working lights or anyone out there conducting traffic.

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To those who may not know: the Karidat fund-raiser has been postponed once again, this time to June 20<sup>th</sup>.

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Question(s) of the week: Is there anyone in authority who has the necessary knowledge - and credentials - to solve CNMI's power problems? If so, who? If not, how does one find him or her? And what does "solve CNMI's power problems" really mean? Is there a written definition anywhere of what it is the CNMI wants in terms of solution to the CUC "problem"?

