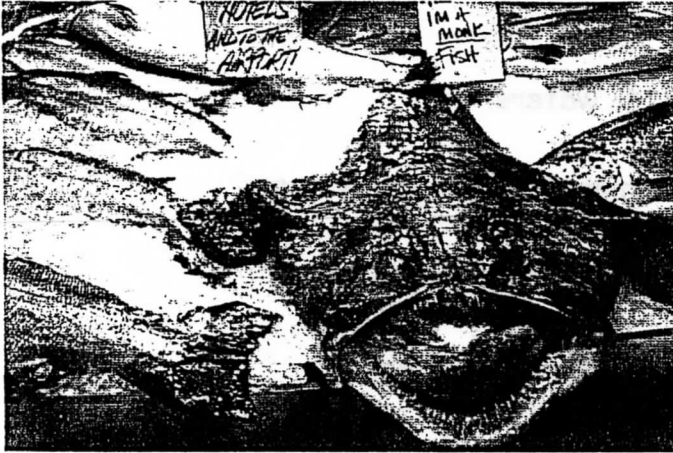


Looking for solutions to overfishing and fisheries mismanagement

CAN WE HAVE OUR FISH AND EAT IT TOO?



As a marine biologist, I have had the opportunity to visit many spectacular and awe-inspiring ocean environments. None have surpassed San Salvador, an island in the Bahamas, for underwater natural beauty. When I saw it 10 years ago, San Salvador was isolated from the rest of the world save the weekly mail boat visits, the occasional scientist, and visitors to its one small dive resort. Only a few hundred people lived on the island and only two fished regularly.

Those reefs still set my standard for what Caribbean coral reefs are supposed to look like. Living coral covered virtually every square inch of the reefs and large predators such as sharks and groupers eyed me curiously on virtually every dive or snorkel.

In 1992 Club Med opened its Columbus Isle Resort on the island with space for 400 tourists. I watched as the impact of the construction, growing population, and the increased and more technologically advanced fishing wiped out the pristine qualities of the reefs. The entire characteristic of the reefs and the island changed in just a few months.

Many people believe that natural fish refuges, like the isolated San Salvador I knew, historically helped sustain fishing in other ocean areas. But a growing human population and advancing technology have made virtually every spot on the ocean susceptible to fishing and other human activities, and the resulting crashes in fisheries have been alarming.

More than 100 fish stocks are now considered overfished in U.S. waters, more than at any other time on record. It is even more disturbing to note that nearly two-thirds of those overfished stocks—which desperately need a chance to recover—are currently being fished at excessive rates. The situation tends to be even worse in poorer countries that cannot afford to make the necessary efforts to reverse these problems. The virtual loss of fish stocks can have dramatic ecological effects on marine environments and dire economic consequences for coastal communities.

Since we can no longer rely on natural fish refuges—and

human pressures on the oceans continue to increase—responsible fisheries management is crucial to conserve and maintain marine ecosystems and the fishing communities they support. We currently rely almost universally on information-intensive systems, which require accurate estimates of abundance, productivity, and catch rates to succeed at maintaining healthy fish populations and abundant catches. Errors in any of these estimates cause conventional management systems to fail, and errors happen often. In the United States, the government claims to know the status of only 22 percent of all fish stocks. Basic information for the remaining 78 percent is lacking, including crucial data on whether the stock may be overfished.

Nevertheless, politics favor these poor-performing management systems. Since fishing communities are often faced with substantial challenges to making a living, they tend to speak with a loud voice requesting to fish—even when populations are in decline. Few politicians have the political will to interfere with citizens' livelihoods, and fishermen usually get their way.

Although the lack of accurate information and the political process has hindered responsible management, there are hopeful signs of change. Decades ago, scientific research showed that management systems can be designed to maintain healthy fish populations and abundant catches even with large amounts of uncertainty. These systems are based on the same science that guides space ships and other rockets, and is distinct from conventional management in that they react much more decisively and proactively to reduce or eliminate fishing pressure when evidence suggests the stock is in decline. The Ocean Conservancy has been reviving these old studies and adding to their findings to strengthen the scientific basis for better fishing management systems.

More responsive management systems will mean setting responsible fishing limits to ensure there are enough fish left in the ocean for the future. Doing so is the best way to maintain the long-term health of ocean environments and fishing communities. We must demand that our government representatives adhere to these levels and treat the ocean—a common resource “owned” by us all—with the care necessary to sustain it into the foreseeable future. This is not an easy task. We have reduced many fish species and populations to such low levels that there are many lean years ahead. But if we, too, speak with a loud voice and have a clear vision of what we need to do, we have the capacity to convince managers to do the right thing.

Dr. Josh Sladek Nowlis is the Senior Scientist for the Fish and Ecosystems Programs at The Ocean Conservancy. He has worked on projects around the world using science to advance understanding of how to responsibly manage ocean ecosystems.

Name: _____

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Article questions

1. What is the authors standard for what Caribbean coral reefs are supposed to look like?
2. How many fish stocks are overfished in U.S. waters?
3. What must be relied on to conserve and maintain marine ecosystems?
4. What percentage of fish stocks are known to the US government?
5. What is necessary for more responsive management systems?
6. Who is Dr. Josh Nowlis?