

The New England groundfish debacle (Part IV): Is cutting back harvest really the answer?

Nils E. Stolpe/FishNet USA
April 3, 2012

Please feel free to reproduce or redistribute this issue of FishNet USA or any others. The only requirement is that you cite the source fully as above. To be removed from this distribution list, please reply to this email with "remove" in the subject line. The FishNet USA website is at <http://www.FishNet-USA.com> and provides access to previous issues as well as a pdf version of this issue.

In the case of long URLs I have used the service offered by the website TinyURL at <http://www.tinyurl.com>. The URLs provided will redirect you to the intended site.

#####

Because of the stringent interpretation of the law that controls fishing in the U.S. Exclusive Economic Zone (EEZ), NOAA/NMFS is enforcing overly rigid requirements that are opposed by a large number of fishermen and a growing number of elected and appointed officials from coastal states. In spite of this and because of the lobbying ability and the PR expenditures of a handful of "charitable" foundations and the ENGOs that they control, the New England groundfish fishery is teetering on the edge of disaster.

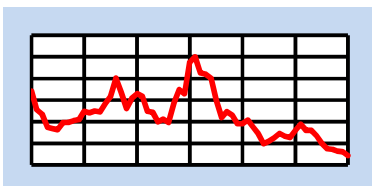
If this is allowed to happen, what specific factors – which the anti-fishing groups tend to stay far away from - will be the cause of this collapse?

The "blame it all on fishing" management philosophy

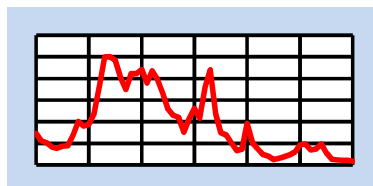
"I suppose it is tempting, if the only tool you have is a hammer, to treat everything as if it were a nail." (A. Maslow, 1966, **The Psychology of Science**)

While it's a fact that's hardly ever acknowledged, the assumption in fisheries management is that if the population of a stock of fish isn't at some arbitrary level, it's because of too much fishing. Hence the term "overfished." Hence the mandated knee jerk reaction of the fisheries managers to not enough fish; cut back on fishing. What of other factors? They don't count. It's all about fishing, because fishing is all that the managers can control; it's their Maslow's Hammer. When it comes to the oceans it seems as if it's about all that the industry connected mega-foundations that support the anti-fishing ENGOs with hundreds of millions of dollars a year in "donations" are interested in controlling.

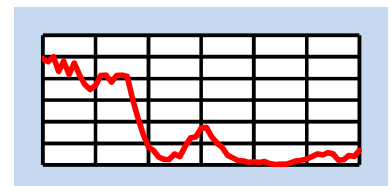
Below are graphs of landings of New England groundfish species from 1950 to 2010 relative to the highest landings over that time period. As they plainly show, landings have been declining steadily for just about all groundfish species from 1980 or before. How much more can fishing mortality be decreased (from http://www.fishnet-usa.com/Research_funding_A_win-win.pdf)?



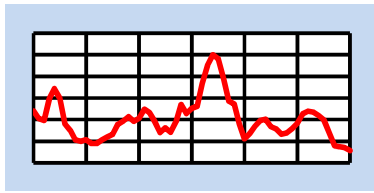
Winter (Blackback) Flounder



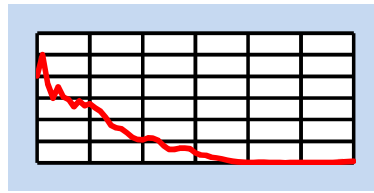
Yellowtail Flounder



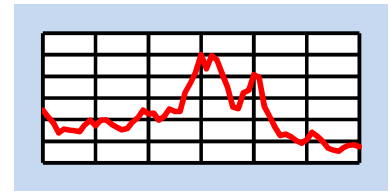
Haddock



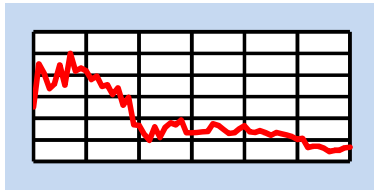
Witch Flounder



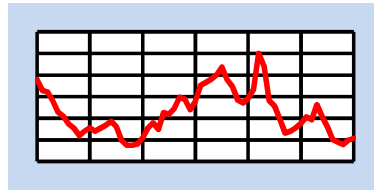
Acadian Redfish



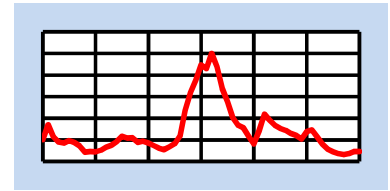
Cod



Silver Hake



White Hake



Plaice

But the managers, crippled by the constraints that have been placed on them by the Amendments to the Magnuson Act, have to either admit defeat, pack up and go home or keep swinging that “hammer.”

Symptomatic of this “blame it all on fishing” diversion is a recent press release from the Natural Resources Defense Council on in-house research titled *Two-Thirds of Depleted Fish Stocks Rebound Under Federal Fisheries Law* (<http://tinyurl.com/cy9vjeh>). From it:

Of the 44 stocks analyzed in this report, nearly half—21 stocks—were from New England. Indeed, it was the collapse of this region’s groundfish populations in the 1990s, which was estimated at the time to have cost the region \$350 million annually, that largely spurred the SFA’s passage. Today, 12 of these stocks are rebuilt or making significant rebuilding progress, including Acadian redfish, American plaice, barndoor skate, Georges Bank haddock, monkfish, red hake, sea scallops, scup, silver hake, spiny dogfish, windowpane flounder and yellowtail founder (southern New England). The remaining nine stocks are still struggling to rebuild. These stocks include the region’s two iconic cod stocks (Georges Bank and Gulf of Maine), two yellowtail flounder stocks (Cape Cod/Gulf of Maine and Georges Bank), Gulf of Maine haddock, Southern New England/Mid-Atlantic winter flounder, and white hake. Continued overfishing is a key culprit of rebuilding shortfalls in most instances. Recently implemented annual catch limits in the region should allow these stocks to turn the corner.

The NRDC report is an attempt to prevent the reintroduction of much needed flexibility into the Magnuson Act by the current Congress (the Act is due to be reauthorized again this year). In it the claim is made that cutting back on fishing was responsible for “sixty-four percent of once-overfished, monitored (by NOAA/NMFS) fish stocks nationwide” being rebuilt or making significant progress in that direction. Consider that to be monitored a fish stock must support a significant fishery. Therefore fishing has to be a significant source of mortality.

With any population, if you reduce a major source of mortality and everything else remains equal the population is going to grow. Less fishing mortality means more fish, as long as fishing mortality is significant and all other mortality sources remain about constant.

But what about the thirty-six percent of the fish stocks that hasn’t rebounded? The landings for cod, yellowtail flounder, haddock, white hake and winter flounder charted above plainly show that fishing on these stocks can’t be reduced much farther than it has been, but they are still declining. Can any conclusion be drawn from this other than that there are other sources of mortality for thirty-six percent of the fisheries that NRDC examined that far outweigh fishing mortality?

In the sixty-four percent of the fisheries that are “rebuilding,” there is nothing that indicates that fishing is the major source of mortality, only that it is a significant source.

But why should such subtleties matter to the folks at NRDC or any of the other ENGOs who have built multi-million dollar bureaucracies with inflated salary structures based on “blaming it all on fishing?”

Competition and predation

As I wrote last September in *Fishing isn't a four letter word* (http://www.fishnet-usa.com/Fishing_not_four_letter_word.pdf), there are over a billion pounds – 557 thousand metric tons - of spiny dogfish available to the out-of-work groundfish fleet. They are catchable and with a little more market development could be readily salable. Instead this huge biomass of dogfish is either out there competing with the more desirable groundfish species for food and space or is eating them.

In 2004 B.M. Weatherbee and E. Cortes estimated that spiny dogfish consumed between 0.4% and 2.6% of their total body weight every day. If we assume a median level of 1.5% per day, each dogfish consumes its own weight every 60 days, or six times its body weight every year. The million metric tons of dogfish alone are consuming on the order of 6 million metric tons of prey species every year (in 2011 total U.S. groundfish landings in the Northeast were 28,000 metric tons). In 2008 researcher James Sulikowski reported that the stomach contents of spiny dogfish sampled off New England were 87% by weight from bony fish, with cod, herring, and sand lance being the top three species. Sand lance and herring make up a large part of the diets of cod and other groundfish.

For the next three years the proposed spiny dogfish allowable commercial catch will be under 20,000 metric tons per year. This will allow the population to continue to increase exponentially.

Then, thanks to the overall success of the Marine Mammal Protection Act, the populations of seals, sea lions, dolphins, porpoises and small whales are burgeoning. Among the few critters out there that are better at eating commercially valuable fish, or the fish and shellfish that they feed on, than spiny dogfish are these seals, sea lions, dolphins, porpoises and small whales. In fact, using various population estimates and food requirements and using 2006 data I estimated that collectively these protected marine mammals in the Western North Atlantic – that's off the United States' and Maritime Canada's Atlantic coast – were eating 20 million metric tons of food each year. That's well over ten times what U.S. and Canadian fishermen were taking annually from those waters. The rule of thumb is that these marine mammal populations are increasing at a rate of 3% a year (see *Getting real about ecosystem based management* at http://www.fishnet-usa.com/ecosystem_management.htm).

So a very large proportion of the groundfish remaining in New England waters are being eaten by or are having their food eaten by a whole bunch of very prolific predators.

A management regime that demands the simultaneous Maximum Sustainable Yield (MSY) from all stocks being managed

As interpreted by NOAA/NMFS in National Standard #1, “*the Magnuson-Stevens Act establishes MSY as the basis for fishery management and requires that: The fishing mortality rate does not jeopardize the capacity of a stock or stock complex to produce MSY.*” (see NMFS's National Standards Guidelines/50 C.F.R. 600.310 et seq. at <http://tinyurl.com/chnvreb>). This assumes that all stocks of managed fish in a given area are capable of being and should be at the MSY level simultaneously. Anyone with even a beginners' grasp of ecological principles will realize that this is not possible in complex ecosystems where various species compete with each other for limited resources. Rather, it harkens back to the days centuries back when there was a belief that there was a balance in the natural world that would only be upset by some unnatural disturbance (think Edward Hicks and Henri Rousseau).

It doesn't work like this in the real world. To some degree cod compete with haddock, haddock compete with yellowtail flounder, yellowtail flounder compete with blackback flounder, and on and on and on. If they don't compete for food, they compete for space. When the population of one species is up, because these species inhabit identical or similar niches and

their numbers are determined by the availability of identical or similar resources, the population of another is going to be down. Yet the federal law that governs fisheries management in our coastal waters demands that they all be up at the same time and if they're not, guess what? They're determined to be "overfished" and, the fishermen are held responsible and fishing has to be cut back.

In the New England groundfish fishery there are a handful of species that are known as "choke" species. These species are less valuable than the other species that they are inextricably mixed with, but the harvesting of the more valuable species will be - and has been - curtailed because there aren't maximum levels of the "choke" species which are taken with the far more valuable fish as unavoidable bycatch. You can only appreciate the ridiculousness of this when you consider that the sea scallop fishery (2011 landings valued at \$580 million) could be closed with tens or hundreds of millions of dollars worth of sea scallops uncaught because the sea scallop fleet had reached their bycatch limit of yellowtail flounder (valued at < \$1 million).

This is also the reason for the spiny dogfish TAC of 20,000 metric tons. This is a rate that is guaranteed to keep the dogfish population at or near record levels – at the same time keeping dogfish predation on and competition with much more valuable fish stocks at record levels as well.

What about warmer water?

In 2005, Institute of Marine Research (Bergen, Norway) scientist Kenneth Drinkwater wrote in the International Council for the Exploration of the Sea (ICES) Journal of Marine Science that a temperature increase of 4 degrees celsius would lead to collapse of the cod fishery off Georges Bank and a sharp decline in the Gulf of Maine as the cod migrated north. *"It is quite clear that, with future warming, there will be a northward migration of cod,"* he wrote.

<http://icesjms.oxfordjournals.org/content/62/7/1327.full.pdf>

In the past year, the temperature in the Gulf of Maine reached record highs. *"At some point, (the gulf) is going to be inhospitable to cod. We're getting close to that now,"* said Jeffrey Runge, biological oceanographer at the University of Maine. In the past four years, the surface temperature in the gulf has risen between 2 and 3.5 degrees fahrenheit a year, more than enough to cause the near-collapse due to migration that Drinkwater predicted in 2005.

(<http://bangordailynews.com/slideshow/alarmingly-warm-water-in-gulf-of-maine-bringing-changes/>)

Considering all of the effort that the eco-alarmists are putting into convincing the world that we are on the brink of a climatological Armageddon because of man-made climate change, you would think that those of them who are fishing-focused would be doing their best to bring this to the public's attention. Not so. In fact, Peter Shelley, a lawyer with the Conservation Law Foundation (for more on Mr. Shelley and the CLF see my column Flotsam and Jetsom at http://www.fishnet-usa.com/Flotsam_Jetsam_2012.pdf) suggested that the New England cod fishery be shut down.

Now it should be apparent to anyone who isn't dead set on destroying the remaining vestiges of our traditional New England fisheries that fishing on the remnants of a stock of any fish that has been displaced by a shifting temperature regime, something that I'll remind you happens periodically and more or less regularly in the North Atlantic, isn't going to have any effect on that stock. When the ocean temperatures go back to where they were – when the regime shifts again – the fish will come back. Until that point fishing or not fishing will have no significant impact.

To his limited credit, limited because he was easily five years late with his suggestion (see *A plague of dogfish* at <http://www.fishnet-usa.com/dogforum1.htm>), in the same blog post where he pushed for the closure of the cod fishery Mr. Shelley did write *"and you should be focusing on increasing harvests on skates and dogfish and some of the other predators that you have an ability to manage and reducing the mortality associated with some of them."*

And then there's not sampling where the fish are

A particular managerial shortcoming is the belief that a fish stock only extends as far as the area in which that stock is sampled, which is generally the jurisdiction in which the fishery is accomplished. With New England groundfish, that means out to the limits of the various bottom trawl surveys – generally a bit past the outside edge of the EEZ. So what happens if, perhaps because of too warm water or too much competition/predation, most of the fish pack up and move to the East beyond where the trawl surveys sample? According to the stock assessments, those fish no longer exist. Management restrictions are put in place accordingly.

Then what happens when/if the fish come back? Not much until the next assessment, which could be three or four (or more) years down the line. This might well be the situation that is presently occurring with inshore yellowtail flounder and cod off New England (see R. Gaines *Auctions confirm renewed 'uptick' in cod* in the 03/25/13 Gloucester Times at <http://tinyurl.com/cjujwkj>). This is exactly the behavior that fishermen were predicting in spite of the “doom and gloom” predictions of the scientists.

It's a big ocean out there, with a lot of room for the fish to move around, and possibly with an increasingly lot of reasons for them to move. We can't expect the government to have the resources to chart the full geographic extent of every stock that's being managed, but we should expect a management system that recognizes that fishermen have been observing how fish stocks behave for decades - and in many instances for generations - and that they have knowledge that is, or that should be, extremely relevant to effective fisheries management. That was the management system that Congress designed for us in 1976, but it's definitely not the one that we have today. This one was designed by the anti-fishing ENGOs and because of it our fishermen, our fisheries, our fishing communities and our seafood consumers are suffering. But for the last two Magnuson reauthorizations these ENGOs have been laboring – and spending – mightily to keep things the way they are, and they have already started their foundation-funded campaigns to insure that real on-the-water knowledge is kept away from what they now consider their and their scientists' management system. Tilapia, anyone?

Last but definitely not least

The people at NOAA/NMFS were apparently convinced that the groundfish assessment preceding the one that has precipitated the current “crisis” represented the best available science, as the Magnuson Act requires. Hence the rosy picture of the condition of those stocks and their progress towards being rebuilt that Ms. Lubchenco painted before the Senate committee.

Things were thought to be so good then that the Conservation Law Foundation's Peter Shelley wrote on the CLF blog in arguing against federal disaster aid for the Massachusetts groundfish industry “*contrary to the local headlines and talking points from Massachusetts politicians rushing to align themselves with 'the working man,' there is no evidence of a disaster in the Massachusetts groundfishing industry* (my emphasis). *In fact, the Massachusetts groundfish fleet netted \$3 million more under the new program than the previous year, even though fuel costs soared some 30%.*

(<http://tinyurl.com/bpyxv7>)

Mr. Shelley testified to the New England Fishery Management Council on February 6 of this year that “*there's no biological wiggle room left. This is your best available science and this is what these motions have to be based on.... You should be talking about closing it (the groundfish fishery) to everybody. You are in a crisis* (ditto).”

(<http://tinyurl.com/bqdu8n8>)

The current NOAA/NMFS claim - that's the same people in the same offices using the same computers running the same software and utilizing the same data sources - is that they were wrong then but they are right now. They “fixed” the system, the data, the assessment or something or other else.

These are the people, the computers, the software and the data that Mr. Shelley and his ENGO/foundation cronies have decided should be in complete and unrelenting control of fisheries management in the U.S. It seems that he and they are

still of that opinion even after this 180 degree flip. And there's nothing to make anybody think that there won't be another flip in the near future, because the scientists, the bureaucrats and the modelers don't have all of the answers. In fact the only answer they seem to be in agreement on, and we can include their ENGO colleagues in there with them, is that it's the fishermen who should bear the burden.

That's accepting on faith that the same system that was so wrong then is so right now, and the social and economic consequences of that acceptance are going to be staggering. But not, and you probably won't find this at all surprising, for the ENGO/foundation people who are ultimately responsible for this. They aren't going to feel any of those consequences, except for maybe shedding a crocodile tear or two.

The Magnuson management inflexibility, which is the result of successfully putting the scientists with their grossly inadequate science "in charge" of the management process and of doing away with any real input from fishermen, is ultimately responsible, and such distortions of the original intent of Congress in managing our nation's fisheries won't be made right until people with first-hand knowledge of our fish, our fisheries, our inshore and offshore waters and the workings of our coastal communities are once again given a significant say in how our fisheries – not just our fishermen – are managed.