

Underfishing in New England: have things really changed?

Back in April NOAA/NMFS was trumpeting "good news" about increased catch limits in the New England groundfish fishery (see NOAA/NMFS press release dated 04/08/11 titled *New England fishing season to open with higher catch limits*). The total amount of groundfish available for harvest was 39% lower in FY '10/11 than it was in FY '08/09, and the amount of groundfish excluding haddock was 24% lower. From the release:

"The increase in catch limits is a result of the rebuilding process underway and is one of many steps we are taking to grow economic opportunity in diverse, working waterfronts that support fishing jobs in the Northeast," said Jane Lubchenco, Ph.D., under secretary of commerce for oceans and atmosphere and NOAA Administrator. This year's higher catch limits will affect 12 groundfish stocks. These stocks include: Georges Bank cod, Gulf of Maine cod, Georges Bank yellowtail flounder, Southern New England/Mid-Atlantic yellowtail flounder, Cape Cod/Gulf of Maine yellowtail flounder, American plaice, witch flounder, Georges Bank winter flounder, Southern New England winter flounder, redfish, white hake, halibut."

Several years back I wrote *Chronic Underfishing - The Real New England Groundfish Crisis* (http://www.fishnet-usa.com/chronic_underfishing.htm). In it I examined the Target Total Allowable Catch (Target TAC) and the actual landings of the various species for Fishing Year (FY) 2008-09 in the New England groundfish (multispecies) fishery. Using NOAA/NMFS data, I determined that the mostly New England fleet, because of an overabundance of management-demanded restrictions, had landed only 20% of the total groundfish that it could have caught sustainably.

Accordingly, when the same data was passed out for FY 2010-11 at the New England Fishery Management Council's most recent meeting (*NMFS Preliminary Catch and Landings information for NEFMC FMPs for Fishing Year 2010-11*), I was most interested in comparing the underfishing performance pre- and post-catch shares in the groundfish fishery.

A very preliminary analysis seemed to indicate that the New England fleet had indeed performed better, landing 35% of the groundfish that it could have sustainably landed (note that the previously used Target TACs had been replaced with Annual Catch Limits or ACLs, which are essentially the same measure). This appeared to be quite an improvement and quite a recommendation for catch shares in this and every fishery.

But is it really an improvement? In FY 2008-09 the Target Total Allowable Catch (Target TAC) for the groundfish species was 162 thousand metric tons and total landings were 32 thousand tons. Haddock made up 66% of the target TAC (108 thousand tons). Less than 7 thousand tons of haddock were landed. The non-haddock target TAC was 54 thousand tons and the non-haddock landings were 25 thousand tons (46% of the non-haddock TAC).

Then in FY 2009-10 the Target TAC was 135 thousand tons and total landings were 33 thousand tons. Haddock made up 67% of the Target TAC (91 thousand tons). A bit more than 7 thousand tons of haddock were landed. The non-haddock Target TAC was 44 thousand tons and the non-haddock landings were 26 thousand tons (59% of the non-haddock TAC).

In FY 2010-11 the Annual Catch Limit was 95 thousand tons and landings were 33 thousand tons. The ACL for haddock was 53 thousand tons (56% of the total ACL) and haddock landings were under 9

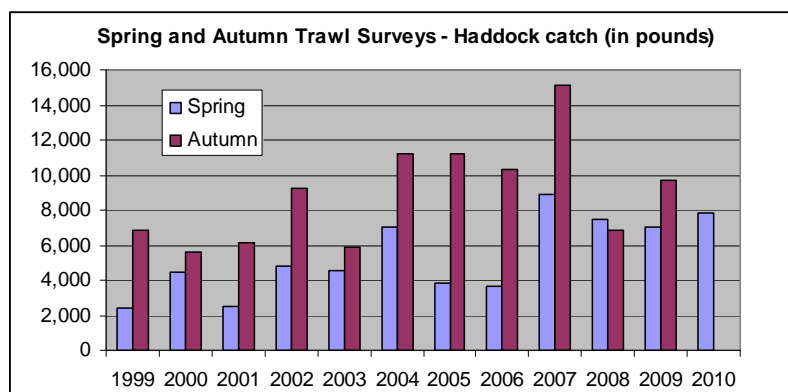
thousand tons. The non-haddock ACL was 42 thousand tons and non-haddock landings were 23 thousand tons (55% of the non-haddock TAC).

For FY 2011-12 the overall ACL is 86 thousand tons, with 34 thousand tons (40%) of that being haddock. This leaves a non-haddock ACL of 52 thousand tons.

According to NMFS/NOAA, in four years the amount of sustainably harvestable haddock has decreased by 68% (76 thousand tons). It went from 108 thousand tons to 90 thousand tons from 2008 to 2009 - a drop of 17% - then plummeted to 53 thousand tons in the following year and to 34 thousand tons in 2011-12, drops of 42% and 36%. As the lack of any trend in the level of underfishing in the non-haddock stocks (45% to 59% to 55%) clearly demonstrate, this decrease in the haddock TAC/ACL is what has driven the level of underfishing in the groundfish fishery lower.

It's kind of difficult to imagine such a decrease in the acceptable haddock harvest being implemented without there being a really noticeable decrease in the haddock biomass.

But, as the chart below demonstrates, the Northeastern Fisheries Science Center Spring and Autumn Bottom Trawl Surveys don't reflect any precipitous decline in the haddock population. The survey data hints at nothing approaching a crash of the haddock stocks, yet what else could account for such a drastic cut in the TAC/ACL?



(Note that in the 2007 Autumn Trawl Survey, 2 adjacent stations yielded over 11,000 pounds of the total of 15,000 pounds for the entire survey. In the series of 23 surveys extending over 12 years - involving well over 7,000 sample tows, only about a dozen tows yielded over 2,000 pounds of haddock.)

If haddock were removed from the calculations, or if the haddock stocks weren't represented as declining precipitously over such a short time, the underfishing situation would appear to be significantly different.

Let's assume, solely for illustrative purposes, that the haddock TAC/ACL was reduced only half as much as it actually was, and that the decline was spread out evenly over the three years post 2007. A 34% total decrease would equal a haddock ACL of 108 thousand tons in 2008-09, 96 thousand tons in 2009-10, 84 thousand tons in 2010-11 and 72 thousand tons in 2011-12. In that case total landings would have been 20, 24 and 26% of the total TAC/ACL in FY2008-09, 2009-10 and 2010-11 respectively. Or, if the haddock TAC/ACL had remained constant at 108 thousand tons, 20%, 22% and

22% would have been landed in each of the three years respectively. The only thing that makes the efficiency of the groundfish fleet (efficiency here meaning the percentage of the TAC/ACL that is actually landed) appear to be improved under the current catch shares regime is a drastic decrease in the haddock TAC/ACL. That decrease doesn't appear to be warranted by the haddock caught in the Autumn and Spring Bottom Trawl Surveys extending back over ten years.

In FY 2008-09, 56% of the Target TAC of all of the sustainably harvestable groundfish species minus haddock were harvested. In FY 2010-11 this figure was 59% - considering the precision of the data involved, I think we can consider them identical.

So what happened to those missing hundreds of thousands of tons of haddock (assuming that, like other species, 25% or so of the total biomass can be sustainably harvested every year)? Were they conveniently swallowed up by the same statistical black hole that all of those pollock that were responsible for increasing the pollock ACL by 500% were pulled out of last year? One of the nice things about dealing in highly complicated statistical manipulations and esoteric computer modeling is that no one "on the outside" really has much of an idea of what you are doing.

But in this instance at least, the why it's being done seems obvious.

NOAA head Jane Lubchenco, the people who work for her and the ENGOs and the foundations that are behind them are committed to their catch shares revolution, arguably to make the fisheries more efficient but unquestionably to get rid of boats, to get rid of fishermen, and to get rid of the influence on fishing and ocean-use policies that fishermen have rightfully had for generations. Of course the best way to demonstrate that catch shares actually work would be to have the fishermen in a fishery catch more fish, but it just seems as if this idea is anathema to Ms. Lubchenco and everyone behind her. You certainly don't spend hundreds of millions of dollars convincing the world that fishermen are and have been the ruination of the world's oceans and then tell them - those few who you've allowed to survive - to go ahead and catch more fish. But you can tell them that the proportion of the fish they could catch relative to the fish that they are catching is improving, and considering that you've effectively whittled down the number of them who are still fishing, their individual catches are improving as well. Those "black holes" can sure come in handy.

But regardless of all of that, the big question is - or should be - why is so little being done by NOAA/NMFS and the ENGO community to increase the proportion of the TAC that is landed in the groundfish fishery? In FY 2010-11 only 16% of the haddock ACL was landed. While it could be argued that this was significantly better than the 6% taken in FY 2008-09, the difference is only 2 thousand tons. With at least 50 thousand more tons of haddock out there to catch and with boat after boat and fisherman after fisherman leaving the fishery, that's inarguably not enough of an increase - unless, of course, you're intent on getting rid of boats and fishermen.

What of foundation-supported programs like World Wildlife Fund's Smart Gear contest? I used to be impressed with WWF's efforts there until I did a little research into the dollars behind it. WWF received \$400,000 from the Moore Foundation in 2005 to fund the Smart Gear competition in 2006 and 2007. In 2006 the awards amounted to \$35,000. In 2007 they totaled \$55,000. It seems like WWF raked in at least \$310,000 to give away (someone else's) \$90,000. They're sure doing their bit, aren't they? WWF has a PR bonanza playing ocean savior (WWF even won the NOAA Sustainable Fisheries Leadership Award in 2007) while making 340% "overhead" on the bucks handed out. Do you think anyone there ever considered that if they only kept 200% they could more than double their awards to fishermen?

The fish are out there and they're out there in numbers that are large enough so that their harvest could be substantially increased yet still be sustainable. If Ms. Lubchenco would implement a crash program to decrease the level of underfishing, not just in New England and not just in the groundfish fishery, with the same zeal that she has put into her catch share revolution, I doubt if that or any other revolution in how we run our fisheries would be necessary. Could there be a connection in there somewhere.

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