Who, us?

An examination of who's catching what in the world of fishing

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Ever since several Pew-funded researchers had the temerity to suggest that recreational angling could actually be detrimental to the health of fish stocks (**The Impact of U. S. Recreational Fisheries on Marine Fish Populations**, F. Coleman, W. Figueira, J. Ueland and L. Crowder, Science, August 24, 2004), recreational fishing advocates have been in a tizzy, vociferously proclaiming to anyone who will listen that "it isn't us killing all the fish, it's those nasty netters."

According to Karl Wickstrom, editor of Florida Sportsman magazine, *"this study is designed to obfuscate the fact that industrial level over-fishing is the cause of the global fishing crisis we have. There is a mountain of information saying commercial fishing is the cause of fish depletion"* (**U. S. anglers big impact on fish stocks**, CNN.com, August 27, 2004).

Then in a recent column the Recreational Fishing Alliance's Gary Caputi wrote "*it is the extensive expansion of commercial landings that has caused overfishing.*" He then elaborated "*in the past 22 years the commercial harvest has expanded by 57.8 percent, while the recreational catch has declined by 23 percent. Landings data for species such as blackfish, sharks, porgies, tuna and summer flounder, clearly show that in the past 20 years, the total catch of recreational fishermen has declined and has been replaced by an expanded commercial catch.*"

Needless to say, Mr. Caputi's words piqued our interest – particularly since he neither specified what "commercial harvest" he was writing about nor disclosed the source of his information. We hadn't addressed who is catching what in our waters since 1997, when we did take a fairly close look at the mid-Atlantic situation. Needless to say, at the time we weren't surprised to see that in fisheries that were shared between recreational and commercial fishermen, our for-fun colleagues were more than capable of killing more than their share of fish (see Commercial harvesting and sportsfishing - who's catching what? at http://www.fishingnj.org/njnet5.htm). But, based on what he had written, and on his colleagues' chronic claims that they "weren't killing hardly anything at all," we decided to do an update.

Availing ourselves of the extremely user friendly (at least if you are actually interested in finding out who's killing what when it comes to fishing) commercial (http://www.st.nmfs.gov/st1/commercial/index.html) and recreational (http://www.st.nmfs.gov/st1/recreational/index.html) fishing databases that the folks at National Marine Fisheries Service have made available on their website, we decided to first verify that commercial fishing had really grown at the expense of recreational fishing over the last two decades.

Looking at the aggregate commercial landings from all states, we did indeed see that they had increased significantly since the early 1980s (see Chart I at http://www.fishingnj.org/recstuff/MinusAlaska.htm). Deciding to look a little more closely at the data, however, we found that Alaska's commercial landings had grown at such a rate during this period as to mask a decline in total landings from the rest of the country (see Charts II and III). And virtually all of the growth in Alaskan landings were in two fisheries. Pacific cod landings increased from 60 million pounds in 1984 to almost 2/3 of a billion pounds in 2003, the most recent year for which data is currently available, and Alaskan pollock landings increased from under 10 million pounds in 1984 to 3 and 1/3 billion pounds in 2003. In 2003 the total commercial landings in Alaska were 5.3 billion pounds. The two fisheries almost entirely responsible for the tremendous growth in Alaskan landings (in 1984 total Alaskan landings were just under a billion pounds) couldn't in any realistic way be considered to be in competition with recreational fisheries.

Regarding the "declining" recreational landings, we totaled them for all species for each year and, in accordance with Mr. Caputi's pronouncement, there really was a decline over the latest twenty years for which data is available. However, on examining that data we noticed that bluefish play a similar role in recreational landings as do Alaskan Pollock and Pacific cod in commercial landings. Recreational bluefish landings in 1986 were 93 million pounds – slightly over one quarter of the total recreational landings for the U. S. As we did with Alaskan pollock/ Pacific cod, we looked at the data for those years minus bluefish landings and saw that recreational landings had actually increased (http://www.fishingnj.org/recstuff/TotalRec.htm).

Taking this a step further, we took the recreational landings of marine fish from Alaska from 1994 to 2004 (in number of fish from http://www.sf.adfg.state.ak.us/Statewide/ParticipationAndHarvest/index.cfm) and compared them to the landings of Alaskan Pollock and cod from those same years. Assuming that Mr. Caputi and Mr. Wickstrom were right about increasing commercial effort driving down recreational landings, we would have expected to see a decline in "adjacent" recreational fisheries when these two commercial fisheries expanded so rapidly. That wasn't the case. The recreational landings grew at about the same rate as the commercial landings of cod and pollock http://www.fishingnj.org/recstuff/AlaskaStatus.htm).

So we have Mr. Caputi, Mr. Wickstrom and other recreational fishing advocates blaming declines in their recreational fisheries that never really happened on an increase in commercial landings that never really happened either, or at least never happened in commercial fisheries that would impact any recreational fisheries. The increase in commercial landings was due to an increase in the landings of two species and the decrease in recreational landings was due to the decline of a single species.

Our skepticism having been piqued by this seeming distortion, we decided to dig into the data a little farther, next looking at recreational and commercial fishing mortality in the major East and Gulf coast fisheries that have significant landings by both user groups.

Those who are familiar with the NMFS recreational and commercial databases will know that they differ in the species they cover. Accordingly, we initially used data on those species that were treated similarly in both, choosing twenty-five to compare. We retrieved commercial and recreational landings in pounds from 1993 to 2003. We subsequently included six species that are commercially significant but support no recreational fisheries.

For recreational landings we used the NMFS category Type A + B1 (fish that are brought back to the dock in a form that can be identified by trained interviewers or fish that are used for bait, released dead, or filleted). We ignored fish "caught and released," in spite of the fact that catch and release mortality in some recreational fisheries (striped bass and bluefish, for example) can be quite significant. We plotted yearly recreational and commercial landings (in pounds) for each species and linear trend (regression) lines for each species.* The charts are all available at http://www.fishingnj.org/recstuff/RecCatch.htm.

We also determined the proportion of recreational to total landings for each species for each year and plotted them on separate graphs.** Thus, we've made available in an easily digestible series of charts a picture of what proportion of twenty-five selected species recreational and commercial fishermen are catching, whether the amount of each species they are catching is increasing or decreasing, and whether the recreational "share" of each species is increasing or decreasing (needless to say, when the proportion of the total catch taken by recreational anglers increases, the proportion taken by commercial fishermen decreases).

And with the six fisheries that we consider to be solely commercial because they have no significant recreational component, we plotted the percentage of each year's catch as a portion of the total catch of that species over the time period (see http://www.fishingnj.org/recstuff/Comtrends.htm). This allowed us to demonstrate on a single chart whether the landings for each species were increasing or decreasing. In five of these fisheries the landings

have been trending downward since 1993 and in one, ocean herring, they have been trending upward. (We included the swordfish fishery in this chart because no recreational landings are recorded in the NMFS recreational fishing database. However, in recent years an important recreational swordfish fishery has developed and landings appear to be increasing dramatically from year to year. Verification of this increase is readily available through visiting "Swordfishing Central" at http://www.swordfishingcentral.com, a website that focuses entirely on the recreational swordfish fishery).

Were we to accept Mr. Caputi's and his recreational fishing colleagues' assurances, we would expect to see commercial landings in the fisheries increasing, recreational landings decreasing, and the recreational "share" decreasing as well; if not in all of the species we examined, then at least in the overwhelming majority of them.

This wasn't what we found. As a matter of fact, this wasn't anywhere near what we found. Instead, we found that landings were increasing in eight commercial fisheries out of thirty one and in fourteen recreational fisheries out of twenty-five (and remaining level in two commercial and two recreational fisheries). We also found that in the time period covered more fish were harvested by recreational anglers than by commercial fishermen in twelve of these fisheries, and in 2003 that number had increased to thirteen.

Then when we looked at the recreational "share" of the particular fisheries (by dividing the total landings for each year into the recreational landings for that year, we got a relative proportion of recreational landings per year). We saw that it had increased in sixteen of the twenty-five shared fisheries. Of course, it had increased at the expense of the commercial harvest, so the commercial share had decreased in those same sixteen fisheries.

We finally addressed Mr. Caputi's statement that "landings data for species such as blackfish (tautog), sharks, porgies (scup), tuna and summer flounder, clearly show that in the past 20 years, the total catch of recreational fishermen has declined and has been replaced by an expanded commercial catch." Without a lot of trouble we discovered that recreational anglers have been increasing their proportion of at least three of the five fisheries he focused on; tautog, scup and summer flounder. We don't know how the landings compare in the shark and tuna fisheries because the recreational and commercial databases don't address these groups of fisheries in the same manner, but in the yellowfin tuna fishery - the most important tuna fishery of the Atlantic and Gulf – the recreational share and the recreational landings have both been increasing as well (for a comparison of the recreational and commercial shares of these fisheries over the last two decades, see http://www.fishingnj.org/recstuff/20yearcomp.htm).

So what are we to make of all of this? It's hard to credit Mr. Caputi's claim that "it's the extensive expansion of commercial landings that has caused overfishing," and while Mr. Wickstrom might have been accurate when he wrote "there is a mountain of information saying commercial fishing is the cause of fish depletion," all of that "mountain" of information is apparently of the same caliber as Mr. Caputi's, at least concerning our domestic fisheries.

A couple of days immersed in the NMFS data and some fairly simple spreadsheet manipulations have shown us that:

• In spite of the claims of recreational fishing activists, there is no evidence that increases in commercial landings have driven down recreational landings. Nor, according to NMFS data, are their claims that commercial landings have increased over the last two decades (except in Alaska) valid.

• In Atlantic/Gulf coast fisheries that are shared between recreational and commercial harvesters the recreational share (even discounting catch and release mortality) has increased in two-thirds of the fisheries we examined.

• In over half of those shared fisheries the recreational harvest exceeded the commercial harvest.

• Landings were increasing in almost half (twelve out of twenty five) of the recreational fisheries and less than a third of the commercial fisheries (ten out of thirty one) that we examined.

We can certainly understand the recreational fishing activists' attempts to convince their constituents, the general public and federal and state policymakers that their inability to catch whatever they want whenever they want to catch it is the fault of commercial harvesters. In fact, it sometimes appears as if that's all they have to base their campaigns for increased quotas upon.

We can't, however, fathom the seemingly total concentration of fisheries managers on their two preoccupations – conscientiously reducing commercial fishing effort and studiously ignoring the obvious impacts of the increasing recreational fishing-induced mortality (exacerbated by "catch and release" angling) on the sustainability of our fisheries. In fact, the just-released NOAA Recreational Fisheries Strategic Plan for FY 2005 to FY 2010 proudly proclaims:

"*Saltwater recreational fishing is more popular than ever. Over the past decade, the number of angler trips rose nearly 10 percent, to 82 million trips in 2003. Not surprisingly, the number of fish caught by anglers since 1993 has increased proportionately. Although saltwater anglers have caught more fish in recent years, they also have released their catch more often*" (available at http://www.nmfs.noaa.gov/recfish/Fisheries_Strategic_Plan.pdf)

Notice that whoever was responsible for penning these words, in spite of recognizing the reality of who's catching how much of what, attempts to leave the reader with the impression that, because of the growth in "catch and release" fishing, recreational fishing mortality isn't increasing in spite of increased recreational fishing pressure. Nice try, but as we've just shown in fishery after fishery, NMFS' own data proves the contrary.

Commercial fishermen have paid and continue to pay for real conservation. Their reward: continuing efforts by the management establishment to further reduce commercial fishing effort. Recreational fishermen continue to pay for bigger and better boats, for longer and more expensive fishing trips, and for the ability to catch – and to kill – a higher proportion of fish every year.*** Their reward: carefully crafted statements disguising what's really going on from the agency that's supposed to be managing fisheries for everyone.

And because commercial landings can't keep pace with consumer demand, we import more seafood every year. Is it any wonder?

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* The NMFS recreational fishing database does not include Texas, which with its large recreational fisheries in red drum, black drum, red snapper and spotted sea trout would have increased the recreational landings of these species significantly.
** The time interval selected can be critical. As we demonstrate with striped bass, while the trend line shows a decline of about 2% in the recreational proportion of the total striped bass catch from 1993 to 2003, when the time period is extended to twenty years we see a 20% increase in the recreational proportion.
*** For an explanation of the role that recreational fishing expenditures play in fisheries management, see http://www.fishingnj.org/netusa4.htm.