

## WITEK: COUNTING FISH (from page 9)

In response to the problem, the New England Council is proposing that **100 percent observer coverage be required on groundfishing vessels.**

But, as *The Gloucester Times* reports, that proposal isn't going over very well with fishermen.

"...the fishermen made their displeasure clear, skewering some of the data that was used to tabulate the estimated costs and benefits of going to 100% monitoring levels and flatly proclaiming that forcing the industry to pay for 100% monitoring would bring an end to the historic commercial fishery..."

"This amendment will put the final black mark on the industry," said Angela Sanfilippo, the president of the Gloucester Fishermen's Wives Association and a longtime fishing advocate. "It's not fair to fishermen and it's not fair to taxpayers."

"Gloucester fisherman **Paul Vitale** veered away from the data to talk about the simple act of fishing and how the constant presence of monitors aboard his 48-foot *Angela + Rose* will impact how he does his job."

If the conservationist's suspicions are right, the constant presence of monitors aboard all groundfishing boats might have its greatest impact on the estimates of how many cod are discarded dead; a higher estimate would either shut down the fishery or require fishermen to go out and purchase unused quota from others, at what would undoubtedly be a very high price, in order to cover their discards and allow them to keep on fishing for other species.

And those are things that few, if any, fishermen want to see.

So the incentive to misreport discard numbers remains strong, as does the incentive to go out and convince the New England Council that it shouldn't require universal observer coverage.

Without such coverage, cod discard numbers will continue to be suspect, and it may be impossible for managers to rebuild the stock based on the data that they now have on hand.

But to fishermen who want to keep fishing, a badly depleted cod stock remains the lesser evil, when compared to being tied up to the dock, and not making money, in order to let the cod stock rebuild.

### THE RECREATIONAL CATCH

There is no gentle way to say it: **Surf and private boat recreational landings can constitute the black hole of the fisheries management process.**

Prior to 1981, and the implementation of the Marine Recreational Fishing Statistics Survey—the infamous "MRFSS"—it's safe to say that recreational landings were a complete unknown, and that any landings included in a stock assessment, or used in the regulatory process, were nothing more than a semi-educated guess.

MRFSS attempted to bring order out of chaos, and appeared

to be a statistically valid, peer-reviewed approach to estimating recreational catch, effort, and landings. While it was better than nothing, it turned out to be not too much better than nothing, with the National Academy of Sciences noting, in its extensive 2006 study of MRFSS, *Review of Recreational Fisheries Survey Methods*, that, "Both the telephone and access components of the current approach have serious flaws in design or implementation and use inadequate analysis methods that need to be addressed immediately."

The National Academy went on to explain why recreational data was so difficult to estimate, saying, "it is much more difficult to collect data on recreational saltwater anglers than on commercial fishing operations. There are far more saltwater anglers than commercial fishermen—approximately 14 million

anglers fished annually in recent years—and they do not land their catches at specific points where there are dealers, as do commercial fishermen. In addition, there are many modes of fishing (e.g. anglers who fish from head boats or charter boats, with guides, from shore, on private boats, from private property), and many anglers release fish they catch. Some anglers travel far to fish and only fish a few times each year, which makes them difficult to encounter in surveys. Others, who live within 50 miles of the coast, are much more likely to be intercepted by the MRFSS. Finally, most surveys of anglers depend to some degree on the anglers' recall and willingness to volunteer valid

information. As a result, designing a survey that will provide accurate and timely information, with good coverage at an acceptable cost, is a major challenge."

In response to the MRFSS' problems, the National Oceanic and Atmospheric Administration developed the Marine Recreational Information Program, which received a generally favorable, if not unqualified, review from the National Academy, and brought fisheries managers much closer to having accurate and reliable catch data. While there are still problems with the new MRIP—anglers still have the right to refuse to cooperate with surveyors, and COVID-19 has temporarily (hopefully) reduced both the number and temporal range of the surveys completed in 2020—its structure represents a big improvement over the MRFSS.

Unfortunately, managers have made far less progress improving the way MRIP is used.

As a survey, in which the sampled population serves as a proxy for every angler on the coast, the MRIP will never yield perfectly accurate estimates. NOAA explains,

"Sampling errors are inherent in sampling surveys, and can impact estimate precision. The size of the sampling error can depend on the size of the sample, the design of the sample, and natural variability within the population sampled (increasing sample size, for example, generally decreases sampling error). [emphasis omitted]"

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