



“FATALLY FLAWED” SCIENCE

KILLING AMERICA’S NUMBER ONE OUTDOOR PASTIME

By Jim Hutchinson, Jr.

September 18, 2009 - While the U.S. economy struggles, the recreational fishing industry is nearing collapse. Additional pressure by federal regulators working off data collected by a system deemed “fatally flawed” in a 2006 report by the National Research Council (NRC) is threatening to shut down a number of coastal businesses from Maine to Texas, while denying access to the nation’s coastal resources for millions of Americans who enjoy what’s been called our nation’s number one outdoor pastime.

“A primary culprit in our industry’s destruction is a statistical survey developed over 20 years ago to track simple trends in the recreational fishery,” said Jim Donofrio, Executive Director of the Recreational Fishing Alliance (RFA). “Couple this faulty science with the arbitrary rebuilding deadlines required by our federal fisheries law and you have a recipe for disaster,” Donofrio said. According to Donofrio and the RFA, “since 1981, fisheries managers have relied on the Marine Recreational Fishing Statistical Survey or MRFSS as a quota monitoring tool on a state-by-state basis, but the fact is that it was never intended for that function.”

MRFSS was first implemented by the National Marine Fisheries Service (NMFS) in the late 70’s to obtain general statistics about trends in marine recreational fisheries. Within a few short years, the data derived from the survey was being used to compile annual harvest figures within the recreational sector. Members of the recreational fishing community point out that management goals and objectives have changed in the past 30 years, as have the specific requirements for use of recreational harvest data.

“Commercial and recreational fishermen are given harvest quotas each year for the amount of fish allowed to be harvested,” explained Donofrio, adding “in theory, commercial fishermen bring their catch to the dock to be weighed and sold, so once the quota is met the fishery is supposed to be shut down. However, tracking the number and pounds of fish that our recreational community takes is a bit more difficult.”

As early as 2001, NMFS was aware of the problems with MRFSS in terms of its accuracy. In a presentation before the Mid Atlantic Fishery Management Council (MAFMC) in February of 2001, Dr. David Van Voorhees, PhD with NMFS, said “monitoring of quotas for small areas or short time periods and in-season, real-time monitoring of catch quotas to determine season closures (are) inappropriate uses of MRFSS estimates.” Eight years later, the idea of “overfishing” in the recreational sector is directly tied to these inappropriate estimates.

The MRFSS program uses two main sampling components, a real-time onsite approach where anglers are intercepted and interviewed at key access points like marinas, bridges and beaches, while a secondary component has MRFSS surveyors calling coastal households at random to find active fishermen. MRFSS random sampling methodology leaves significant gaps in the data reporting, as the access points for the approximate 14 million saltwater anglers in America cannot be covered adequately

by small groups of surveyors, while most survey information relies heavily on individual angler recall and willingness to volunteer valid information by phone.

Ray Bogan, legal representative of the United Boatmen, a NY/NJ party and charter boat organization pointed to the initial “waves” of data coming from the MRFSS findings from the months of May and June of 2009 that indicate that overall angler participation was leading to an overharvest of seasonal quota on summer flounder, sea bass and scup, despite one of the rainiest springs on record. “There should have been significant declines in participation because of bad weather,” Bogan said in a recent report in the *Asbury Park Press* of New Jersey. “Next year will be ugly and short if these numbers are allowed to stand,” he added.

The disconnect between MRFSS numbers and on-water observations is nothing new, as pointed out in a 2008 letter written by the RFA to then Commerce Secretary Carlos Gutierrez. “The recreational fishing community can identify numerous occasions where MRFSS has produced harvest and participation estimates that when compared to receipts for fishing expenditures and weather conditions, could simply not be possible,” Donofrio said, while adding “based on a history of producing erroneous estimates that deviate significantly from industry documentation, the RFA is deeply concerned about MRFSS’ inability to accurately account for abrupt changes in our fishery, such as the current downturn we are experiencing in the 2008 fishing season.”

“In the New York marine district, we’ve seen a 40 to 60 percent drop in tackle sales, marine space, usage and overall business,” Phil Curcio representing the New York Fishing Tackle Trades Association (NYFTTA) and New York Marine Trades Association at the MAFMC meetings in August of 2008. “The participation across the board is way down,” Curcio said at that time.

While the captains under Curcio’s representation saw business halved in 2008 versus 2007, MRFSS data from the summer of 2008 showed that New York saltwater fishing participation was only down about 3 percent overall. According to the first four of five waves of statistical data for the season, MRFSS numbers surmised there were 1.70 million saltwater anglers in New York in 2008 who took 4.39 million fishing trips, compared to 1.77 million anglers who took 4.53 million trips in 2007.

John Mantione of J & J Tackle in Long Island and a spokesman for the NYFTTA told *The Fisherman Magazine* last year that those MRFSS findings were drastically different from what he and fellow business owners were seeing at the counter, arguing “You can’t say that effort is down 3 percent, that’s absolutely wrong.” Mantione, like other shop owners, uses overall indicators like bait sales and gear purchases to establish the most targeted or least targeted species. If big spearing aren’t selling, or when #2 sprout hooks labeled “fluke” on the wall of his shop are still lining the racks at the end of the season, then participation in that fishery is obviously off. But the cash register is the biggest indicator Mantione said.

“Our (2008) sales have decreased by 20 to 25 percent,” Mantione said, a clear indication he explained of lower overall fishing participation on Long Island. “Actual people count is proportionate to the dollar amount, and our numbers, proportionately, are down 20 percent in 2008.”

Despite the plea from RFA on behalf of the recreational fishing community to “consider the reality of reduced recreational fishing participation because of the economy, gas prices and burdensome regulations when reviewing MRFSS data,” the survey findings were once again considered gospel by regional fisheries managers who met in late 2008 to set the 2009 harvest limits for the recreational

community, a process which will once again take place in the coming months with an eye on fishing limits for 2010.

According to MRFSS, Maryland's recreational sector went over their 2008 summer flounder quota by about 32 percent, which in turn necessitated harsher restrictions to the 2009 season. Despite implementing an increase in size limit, a decrease in bag limits and a shortened season, Maryland anglers recently learned that they've once again exceeded their quota in 2009, this time going over the allowable landings by the end of June with MRFSS data waves for July and August still yet to be tabulated.

"It all comes back to the MRFSS numbers," said Capt. Steve Whitelock of the Happy Hooker in a recent article by the *Maryland Coast Dispatch*. "They can't possibly be right. They estimated 73,000 flounder caught through June with the majority of the summer still to go and the quota in Maryland is 61,000."

Whitelock told the *Dispatch* that numbers for June should have gone down, considering the increase in the minimum size for keepers. "The numbers through June can't possibly be right," he said. "They didn't factor in the increased minimum size limit for keepers. There just weren't that many keepers caught with that higher size limit."

At the behest of the recreational fishing community, Congress convened a special hearing in 2005 to look at the data collection methods compiled by MRFSS. The outcome of that hearing was a Congressional charge that the National Research Council (NRC) conduct an in-depth analysis of the recreational data collection. In a subsequent NRFS report released by the National Academy of Sciences in 2006, a panel of experts found 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." In a presentation to NMFS and the recreational stakeholders, Pat Sullivan, the Chair of the NRC committee and a Cornell professor, referred to MRFSS specifically as "fatally flawed."

"Despite the complexity of the challenge and its importance for fishery management, the MRFSS program staff have been severely handicapped in their efforts to implement, operate and improve the MRFSS, including implementing the recommendations of earlier reviews," the NRC 2006 study concluded. "It is not reasonable to expect such a small staff – and one that lacks a Ph.D-level mathematical statistician – to operate a survey of such complexity," the report concluded.

Following the Congressionally charted study, NMFS began work on a new survey methodology called the Marine Recreational Information Program (MRIP) which was supposed to be online and operational by the start of this year. Delays on the federal side pushed back the start date for MRIP, and it's expected that the new federal program won't be online until sometime in 2010. That means the recreational fishing community is still stuck with the gospel according to MRFSS, referred to by federal regulators as the "best available" science.

"The regulatory agencies that control our fisheries have not been willing so far to accept any scientific research that prove theirs incorrect," said Pam Anderson, the Operations Manager at Capt. Anderson Marina in Panama City Beach, FL. "They conveniently call data that's not their own 'not the best available' data," Anderson said, adding that the Panama City Boatmen Association (PCBA) has been working with these agencies for 20 years now and the news only seems to get worse. "We have been

very clear that we want to protect our natural resource *and* have the privilege to stay in business at the same time,” Anderson added.

While MRIP is still in the design and development stage, the recreational fishing industry is left to adhere to the best available science, leaving their own on-water observations and industry data to be considered at best “anecdotal” in nature. According to the NRC report, those types of experiential, narrative or local information should be used during the scientific process. “When no other information is available, anecdotal information may constitute the best information available,” the NRC reported in its executive summary, adding “In addition, anecdotal information may be used to help validate other sources of information and identify topics for research.”

Members of the recreational industry wonder aloud why theirs seems to be the only industry in America where stakeholder analysis isn’t allowed to be used for statistical reporting. “Look at sales tax revenues, look at regional reports, talk to the manufacturers, come to a show like Hal Brown (tackle trade show),” said NYFTTA’s Mantione. “This isn’t anecdotal; these are solid, hard numbers.”

In-person field sampling and telephone interviews are expected to continue with the new survey program, but many specific survey elements related to both data collection and analysis are being refined for the future. A significant feature of MRIP will be the creation of a national saltwater angler registry, which is said will help improve data collection. Rather using coastal phonebooks, a national saltwater registry of recreational anglers will theoretically streamline the procedure for surveyors to contact actual anglers. While the process may be changed, the content of the actual questions is still open to debate. If current experiences are any guide, it’s hard for the for-hire industry to be overly optimistic.

Capt. Brook Koeneke runs a 45 pontoon boat along the quiet, back bay waters of southern New Jersey, catering primarily to the summer visitors who enjoy a more pastoral summer flounder fishery along the Jersey Shore. Koeneke says the tightened restrictions over the past few seasons on a healthy stock of fish have left his customers with fewer fish to take home. “In 2006, a good day for us out of two daily trips, when conditions were okay, was anywhere from eight to 12 keepers per trip. Anymore, a good trip is two keepers, and that’s about it. Being a back bay operation, I can’t go out in the ocean chasing the big keeper fish.”

Like other registered fishing captains, Capt. Koeneke occasionally gets phone calls from federal surveyors asking about for-hire participation, but he says the questions are obviously not producing the right answers. “They want to know where I leave from, where I return to, how many people are fishing and how many hours of fishing do the people get when they do fish,” Koeneke said, adding “I ask them, ‘don’t you want to know what I caught,’ and they say ‘no’.”

Koeneke, like most professional captains whose business has suffered in recent years, is not one to mince words when it comes to the current state of the industry and the response from regulators and legislators alike. “The government doesn’t want to know what I catch and I think this is dead wrong. They could care less about what I catch,” he said. “Why the hell can’t they ask me and all the other back bay guys what we catch? Because they’re not doing the job, that’s why.”

“Angry about it? Damn right I am, I’m madder than hell,” Koeneke said.

Fellow New Jersey charter captain Adam Nowalsky said it’s time to take a closer look at the original MRFSS data to better correlate the data between date and locations. Doing so he says will prove that

some of MRFSS trends have failed to take into account the loss of participation during times of bad weather. "We need to get the raw intercepts and find out when and where people were going dockside" to interview fishermen Nowalsky said. At a New Jersey Marine Fisheries Council meeting, Nowalsky appealed for help from the state's Division of Fish and Wildlife, but that agency's marine fisheries administrator said that his office would not help. "We have no staff," said Tom McCloy, explaining "We're completely 100 percent overboard" already trying to meet legal obligations. McCloy said the recreational industry should mount a challenge itself using the federal Freedom of Information Act.

The New Jersey captains are not unique in their frustration, though according to some of their neighboring states, the Garden State anglers should have a rosier outlook than they do. Bad MRFSS data going back to 2003 has forced New York anglers into a terrible position in recent years, with a summer flounder season and bag limit that's a fraction of what they have in New Jersey, with a trophy-status size limit of 21 inches. "We know folks who tried all summer long to catch a keeper fluke in New York, with no success," said Donofrio. "It all goes back to a MRFSS anomaly from 2003 when recreational anglers allegedly overharvested during one of the wettest and windiest springs on record according to NOAA's own weather observations."

According to Donofrio, every year that NMFS comes back with an overage in one season, fisheries managers must cut back that much more in the season to follow. "That's like missing a credit card payment, where every time the bill arrives, you're stuck trying to pay back the interest alone. With MRFSS' help, we're never going to get a chance to work on the principle."

Captain Mike Barnett, who runs a six-passenger downeast style charter boat called the Codfather along the South Shore of Long Island, said NMFS already has a method for statistical data collection, but it's just not being utilized properly. As a federal fisheries permit holder, Capt. Barnett said he's required by law to submit vessel trip reports (VTR) to both the state and federal fisheries service, but wonders where that data actually gets used. "I am required by NMFS in conjunction with New York State Department of Environmental Conservation to submit a VTR for each recreational trip I take," Barnett said, adding "this particular report is kept but not utilized by NMFS." Like Capt. Koeneke, Capt. Barnett can't help but wonder about the effectiveness of the survey questions in the first place.

Continued cutbacks based on fatally flawed data is leading some groups towards what they believe is their only recourse – legal action. In Florida, recreational anglers are suing NMFS based on the federal agency's inability to meet the NRC requirement to "fix the broken problem" with regard to MRFSS. The suit contends that Florida anglers are being denied access to both the snapper and grouper fisheries due to questionable scientific assessment and a faulty survey system. Similarly, New York State Attorney General Andrew Cuomo has taken the Department of Commerce to court on behalf of recreational anglers in that state. "By relying on indisputably obsolete science, the federal government and the Atlantic States Marine Fisheries Commission are subjecting New York to limits that not only discriminate against New York anglers, but fail to properly protect the fishery," Cuomo said.

Maureen Wren of the New York State Department of Environmental Conservation (DEC) recently told the *Long Island Press* "NMFS establishes harvest limitations based on historical knowledge of how many fish recreational fishermen catch, which we feel are inaccurate." In that same interview, NMFS employee Teri Frady admitted, "We don't have the most efficient data to collect information on anglers, and the fluke fishery is one of the most peer reviewed, highly scrutinized and complex fisheries in the nation due to the recreational component."

While NMFS officials continually point out that their scientific process is “peer reviewed” by independent scientific researchers, the federal fisheries staff can’t discount the actual inaccuracies coming out of their scientific reporting, particularly true with summer flounder stock assessments. “Peer review isn’t corroboration of the data, it’s an actual review of the process itself,” said DePersenaire, adding “The methodology itself might be way off the mark, but it could still pass the peer review because researchers followed the actual process for employing a certain model.

According to the RFA, that’s tantamount to saying that the means justifies the ends. “Imagine if a hospital uses a procedure that leads to infection in 35% percent of the patients, but an independent peer review shows that the procedure was actually administered correctly,” Donofrio surmised. “We’re trying to offer a safer, more successful treatment option, but our experts have continually been kept out of the operating room.” In 2008, the recreational industry was finally able to crack through the theoretical wall of science by raising money for new scientific analysis through the industry-supported Save the Summer Flounder Fishery Fund. With the help of internationally recognized fisheries biologist Mark Maunder, Ph.D, the previously “peer reviewed” stock estimates for summer flounder were adjusted by approximately 60 million fish, proving overnight that the summer flounder stock was not overfished and that overfishing was not occurring.

Industry advocates are hoping that Mid Atlantic example can help lead to bigger advances in the South Atlantic and Gulf of Mexico where both snapper and grouper restrictions are devastating the recreational fishing industry there.

"If government is allowed to arbitrarily use information that is not accurate (to set rules), there's something wrong with that," said South Carolina charter boat captain Mark Brown recently in the *Charlestown Post & Courier*. Brown, like other captains in attendance for the South Atlantic Fishery Management Council hearings in South Carolina in September said he doesn't trust the research. Much of that flawed MRFSS data is actually used to determine the overall stock assessment of fisheries like red snapper, which is especially troubling to researchers like DePersenaire. “The most profound problem is not MRFSS itself but how the managers are currently using it,” said DePersenaire. “You have heard Dr. Van Voorhees say numerous times just as I have, that MRFSS is not intended to be used on fine geographic or temporal scale, yet, year after year NMFS and fisheries managers disregard the known limitations of MRFSS and use it inappropriately, often to the harm of the recreational fishing community.”

DePersenaire doesn't believe there's any hope that MRFSS can be sufficiently improved upon in order to satisfy the federal management demands, not unless the scientific method is broadened to include corroborating information from other sources, including industry data and onwater observations. “Perhaps in the future, some regression can be made between fuel sales, tackle sales, bait sales, and fish harvested or effort,” DePersenaire said, adding that the inclusion of such ‘metadata’ in fisheries statistical analysis could help scientists substantiate or ‘ground truth’ the data. “If metadata ground-truthing was permitted, the 10 year MRFSS trend would probably be lower and New York may not be in the inescapable downward spiral that began in 2003.”

While NMFS continues to redesign a more workable solution to a “fatally flawed” statistical survey, members of the recreational fishing industry continue to take stock of their own future. “Recreational fishing is one of the most enjoyable American pastimes, and these East Coast and Gulf retailers we distribute products to provide equipment, information, and support to many fishermen and women along

with their families while on vacation or throughout the year,” said Gary Zurn, Senior Vice President of Marketing at Big Rock Sports, an international tackle distributor.

As newly appointed Chairman of the Government Affairs Saltwater Committee at the American Sportfishing Association, Zurn supports the RFA’s efforts to address the stifling scientific anomalies in the marine recreational fishery, adding “Further restricting fishing access to recreational anglers due to inaccurate science will deprive these anglers of a sport they love and our retail dealers from making a living in a business they are passionate about.”