The NCMC
MARINE BULLETIN
No. 136 Spring 2012

NEW DIRECTIONS FOR WEST COAST SWORDFISH

Inside this issue:

Plus:

- **A Federal Offense: River Herring Robbery (see page 5)**
- **NCMC's recent travels are detailed on page 7.**

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PACIFIC COUNCIL CONSIDERS ALTERNATIVES TO LONGLINES, DRIFT NETS

The fishermen who started the National Coalition for Marine Conservation (NCMC) nearly 40 years ago put the swordfish in our logo because they considered catching a big broadbill the greatest challenge of any offshore fish. Since then, we've met even greater challenges, such as preventing the collapse of North Atlantic swordfish from overfishing and then restoring the population to healthy levels, and curtailing the use of drift entanglement nets and pelagic longlines on both coasts, indiscriminate fishing gears that threaten not only swordfish but many other vulnerable ocean creatures that swim with them.

Leatherback seaturtle caught on a pelagic longline.
© Projeto Tamar Brazil/Marine Photobank.

More recently, we've been promoting the use of selective and sustainable alternatives to catch swordfish, tuna and other big, commercially valuable species. (see also page 8) That's because, as we've been telling the Pacific Fishery Management Council, we support a local and sustainable fishery for swordfish off the West Coast. After all, we're fishermen. But as we've also advised the council, the use of drift nets or multi-mile longlines should not be an option, because of the so-far irresolvable bycatch problems associated with these unmanageable and destructive ways of fishing.

Fishing with drift nets – strings of mile-long curtains hung deep into the water column that ensnare large animals swimming into them - are an anachronistic way of fishing that is banned most everywhere in the world but for a few pockets of resistance. As for longlines, the only ones who think they should be an option are focused only on maximizing catches of swordfish while coming up with an "acceptable" take of sea turtles. This is a dangerously myopic way of looking at a gear that hooks and kills such a wide range of species; a gear that was prohibited within the West Coast EEZ (200 mile-zone) eight years ago for that very reason.

Finding alternatives to drift netting and longlining is in the best interests of the fish

continued on page 3

Ocean View
Commentary

ANECDOTAL SCIENCE

Who you gonna believe, me or your own eyes?
– Chico Marx in "Duck Soup"

It is rare indeed for regulators to propose stiff cutbacks in fishing without some fishermen claiming the science is wrong, there are plenty of fish out there. They are speaking from their own experience, out on the water, where they make their living. Who you gonna believe?

Such personal testimony is anecdotal and deserves to be heard, but it is not science. So what do we do with it? What representatives of the fishing industry often want us to do is call-off the catch limits, or at least postpone them until the science catches up with "reality." If this message is delivered loudly enough, it can cast doubt in the minds of regulators, who then feel less secure in following the science; even robust, peer-reviewed science.

Science, of course, is supposed to be insulated from politics, but we've seen time and again how a lightning strike at the council level finds a direct path to the council's scientific advisors. Stock assessments that go unchallenged when they support *status quo* all of a sudden come under intense scrutiny when they trigger catch reductions. Because fisheries science is inherently uncertain, few assessments can withstand such scrutiny without appearing inadequate. By highlighting the uncertainties, scientists are able to back off without appearing to compromise their integrity.

A HEALTHY SKEPTICISM

Of course, sometimes fishermen are encountering more fish, for instance when a stock is in the midst of rebuilding. Assessments are typically a couple of years behind what's going on in the water. As they are when stocks are declining, too, when fishermen are seeing fewer fish than the science says are out there, prompting them to demand that something be done to stop overfishing, now.

In either case, it is prudent to go with the best available scientific information, even if we sense – even if we *know* - it could be better. As much as we think we know what we're seeing and what it means, eye witness accounts are notoriously unreliable - as we are learning from the wave of criminal convictions based on eyewitness testimony being overturned years later by DNA evidence.

Anecdotal evidence from fishermen - whether they are seeing more fish, fewer fish, or they think fishing one species is hurting another - can be used constructively, to inform the science. It should be considered as to how we might study things differently, or more thoroughly, and cause us to re-examine our methods, always a good thing in science. What is not a good thing, what ultimately undermines the whole idea of science-based fishery management, is allowing decisions to be based instead on posturing and power-politics. It would be chaos, polarized and unproductive. Kind of like Congress.

- Ken Hinman, *President*

NATIONAL COALITION FOR MARINE CONSERVATION

Founded in 1973

The NCMC is a 501(c)(3) non-profit organization dedicated to the following goals:

- preventing overfishing and restoring depleted fish populations to healthy levels
- promoting sustainable use policies that balance commercial, recreational and ecological values
- modifying or eliminating wasteful fishing practices
- improving our understanding of fish and their role in the marine environment
- preserving coastal habitat and water quality.

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NEW DIRECTIONS FOR WEST COAST SWORDFISH

(*continued from page 1)*

and all ocean wildlife and, just as importantly, the future of fishing for swordfish. On March 3rd, the Pacific Council asked the National Marine Fisheries Service to report back to the Council next year on research into the use of alternative gear types to target swordfish, with a view toward modifying the list of authorized gears, which now includes harpoon, surface hook and line, drift gillnet (banned in most coastal areas to protect endangered leatherback turtles), purse seine, and pelagic longline (currently permitted only on the high seas, i.e., beyond U.S. waters).

LONGLINING CARRIES TOO HIGH A COST

The National Coalition for Marine Conservation has consistently called for phasing out the West Coast drift net fishery and we worked hard a decade ago to secure the current prohibition on pelagic longlining, aware that some at NMFS and in the industry view it as a viable substitute for entanglement nets. We have returned to the Pacific Council often to oppose issuance of permits for "exploratory" longlining in the EEZ. Two years ago, NMFS launched a campaign to persuade the Council to enable an expanded swordfish fishery, pointing out that the U.S. fishery is moribund because of tight restrictions on gear, leaving our market dependent on imports.

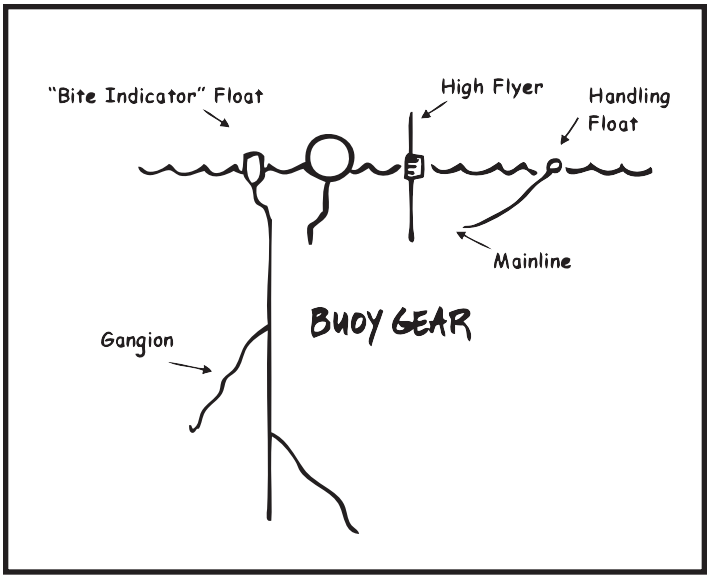
As the Pacific Council set about exploring ways to grow the fishery for swordfish, the NCMC has testified before the Council numerous times, always trying to be constructive. But pointing the way forward requires a fuller understanding of where we don't want to go.

Based on four decades of experience, we know that managing indiscriminate gears, such as longlines, is extremely complicated and terribly costly, from an economic as well as an environmental standpoint. As NCMC president Ken Hinman told the Council at its March meeting in Sacramento, California: "Trying to conserve and protect swordfish, marlin, sharks, tunas, mahi mahi, turtles, marine mammals and sea birds – targeting some, trying to avoid others; species in varying conditions, from abundant to endangered and everything in between; with very different management goals and regulations for each – is the fisheries management equivalent of playing Whack-a-mole. It's futile."

Fortunately, there may be an alternative. Last year we shared with the Council our successful experience with swordfish buoy gear in the Atlantic and described plans to test the gear elsewhere to determine if it is what we're all looking for – an economically-viable commercial gear that has a high catch rate of swordfish with almost no bycatch. Research is now underway in the Gulf of Mexico, to reduce bycatch of threatened bluefin tuna on their spawning grounds, and off Southern California, where the Pflegler Institute for Environmental Research is experimenting with deep-set buoy gear.

BUOY GEAR & OTHER ALTERNATIVES

Swordfish buoy gear is similar to a very short section of a surface longline, with one or two hook-bearing branch lines attached to a buoyed mainline. Typically, about 15 separate buoys are deployed, with no more than two hooks per buoy. The gear is actively tended from the main vessel, with indicator floats signaling when a fish is on the line.



The proven and potential benefits of this gear are many, as commercial fishermen successfully deploying the gear in Florida have testified. Their anecdotal reports are corroborated by a study under the NMFS Cooperative Research Program, *Characterization of Swordfish Buoy Gear Catches in the Florida Straits* (Bayse and Kerstetter 2010). Here's what we know about buoy gear so far:

- **Very minimal bycatch**. According to the study referenced above, the catch composition is about 94% swordfish, the target species.
- **Insignificant bycatch mortality**. It is not a passive gear like drift nets and longlines, but is actively fished; that is, the gear is tended and fish are retrieved upon hook-up. What little bycatch there is can be released alive, since the animals spend a short time on the hook, as compared to many hours on a longline. In addition, survival of released fish is high because fish are externally hooked, even with J-hooks.
- **No Impact on Protected Species.** No turtles, billfish, seabirds, or marine mammals have been caught on buoy gear. Big non-target fish, like sharks, don't foul the gear, as they do with drift nets and longlines.

continued on page 4

NEW DIRECTIONS FOR WEST COAST SWORDFISH (*continued from page 3)*

- **High catch rates**. The catch rates in Florida are very high – over 300 swordfish per 1,000 hooks deployed as compared to about 8 swordfish per 1,000 hooks on longlines.
- **Fresher Product.** Actively fished gears like buoy gear provide fresher, higher quality swordfish. East coast commercial fishermen are working with retail chains, like Whole Foods, to guarantee higher prices for their "green" product.

MOVING FORWARD

Ten years ago when NCMC was lobbying for the longline prohibition as part of the West Coast Highly Migratory Species Fishery Management Plan, our position was – as it remains today - that the gear should be prohibited indefinitely, "until a research program with pre-established protocols and evaluation criteria demonstrates that alternative gears or alternative fishing strategies would have negligible impact on bycatch species, fish as well as protected species."

As noted, research on the feasibility of using buoy gear off California is underway. It's a two-year experiment that extends through mid-2013. We are hopeful it will prove just as clean and effective as it has on the East Coast. Meanwhile, other studies are needed. For instance, the 2004 FMP identified research the NCMC has supported for over a decade - limited soak times for longlines. Studies show that mortality of bycatch species increases significantly with each hour after hook-up.

Over the next year, NCMC will work with NMFS, the Council and independent researchers in support of alternative gears that can eventually augment the traditional harpoon fishery in California (bycatch-free) and create a local and sustainable supply of swordfish on the West Coast. Meanwhile, we'll be urging the Council to define its research priorities and evaluation criteria, with stakeholder involvement, in order to assess the results. Only then can we determine *if* and *how* we should move forward in revitalizing the West Coast swordfish fishery. ❑

MENHADEN: A VISION FOR THE FUTURE

The Atlantic States Marine Fisheries Commission on May 2nd moved a step closer to implementing new management measures through Amendment 2 to the Interstate Fishery Management Plan for Atlantic Menhaden. The purpose of the amendment is to reduce fishing mortality to the more conservative target level adopted by the ASMFC in November 2011. Draft Amendment 2 will be approved at the commission's August 2012 meeting after which the public will have another opportunity to comment on final measures to be adopted in late October.

Prior to the May meeting, the National Coalition for Marine Conservation submitted detailed written comments on the timeline for meeting the new target and ways to monitor and regulate the commercial reduction and bait fisheries. Our comments (available at **www.savethefish.org**, Conservation News, NCMC Weighs In On the Future of Menhaden) were guided by our vision of what we would like the Atlantic menhaden fisheries to look like in the future.

First and foremost, because of menhaden's critical role as food for other fish and wildlife, we would like the resource to be restored to and maintained at a level of abundance substantially higher than the conventional targets set for other marine fish, as recommended by a number of national and international bodies, most recently the Lenfest Forage Fish Task Force (see page 6). We would like the age structure of the menhaden population to reflect that of a natural population, because a more balanced age structure with more, older spawners would significantly enhance breeding success.

We would like to see growth of the menhaden population so the species returns to its historic range, to areas where menhaden have not been seen in abundance for decades. With this growth, we would like to see the fisheries for menhaden distributed throughout the species' geographic range, not concentrated in certain regions, especially in and near sensitive estuaries (e.g., Chesapeake Bay), and not dominated by industrial-scale fisheries for reduction or bait, but rather smaller-scale bait fisheries that support local commercial and recreational fisheries.

Our vision of the future for menhaden recognizes the long-term social and economic benefits of recovering menhaden to higher abundance and greater geographic distribution, as well as the significant value associated with leaving a forage fish like menhaden in the water to serve ecosystem needs.

The commercial fisheries targeting Atlantic menhaden utilize a public resource for private profit. The substantial costs of managing those fisheries are borne by the public, i.e., taxpayers. The public then should determine the future of Atlantic menhaden, not the industry. That public will benefit most, socially and economically, through increased menhaden abundance, for not only the fisheries that harvest menhaden, but also the commercial and recreational fisheries that target the many fish species that prey on menhaden, and the non-consumptive (*e.g.*, bird-watching, whale watching) and non-use benefits (*e.g.*, protecting the health of marine ecosystems). After all, menhaden conservation is about *all* of these things. ❑

A Federal Offense: River Herring Robbery

How are river herring managed on the Atlantic Coast?

River herring are being considered for listing under the Endangered Species Act. While coastal states limit the catch of these important species, no restrictions prohibit commercial fisheries from catching large amounts in federal waters.

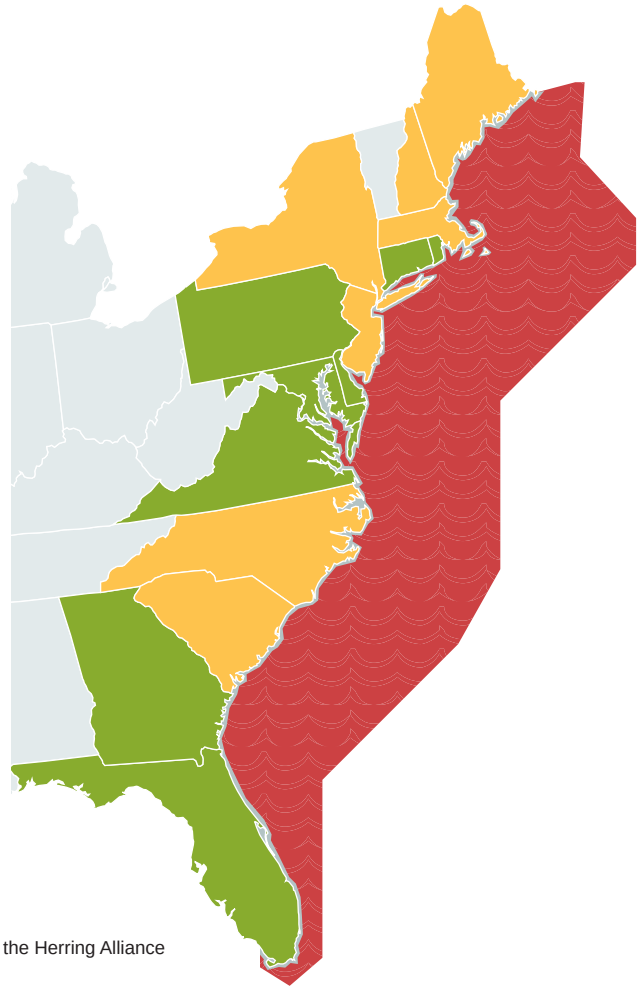


image courtesy of the Herring Alliance

Protective Rules

No fishing
These states do not allow recreational or commercial fishing, or the landing of river herring.

Some Rules

Limited fishing
These states allow limited commercial and recreational river herring fishing in state waters, or boats fishing in federal waters can land river herring bycatch (in MA and NJ).

No Rules

Lots of fishing
In federal waters, there are no restrictions on the catch of river herring.

River herring and shad are in dire need of conservation and management in federal waters. American shad stocks are depleted to historic lows and alewife and blueback herring are under review for a threatened listing under the Endangered Species Act. The Atlantic States Marine Fisheries Commission mandates the closure of state fisheries for shad and river herring unless the state can demonstrate that its fishery is sustainable. As a result, the majority of states have already implemented river herring moratoriums. Limits on fishing for American shad are imminent for 2013. Some of these closures are due to inadequate resources to monitor the fisheries and document sustainability. As NCMC Executive Director Pam Lyons Gromen testified at a recent federal hearing, "The burden of proof rests entirely on the shoulders of river herring and shad fishermen, the same men and women who in many cases are actively engaged in efforts to improve water quality and restore habitat and fish passage. There is no such burden of proof on fisheries catching river herring and shad in federal waters."

Despite insufficient monitoring and data to prove that levels of incidental catch are sustainable, the catch in federal fisheries is for all intents and purposes unrestricted. That can change...

Visit **www.herringalliance.org** to learn what NCMC and other Herring Alliance members are doing to protect river herring and shad at sea, and how you can help.

ASSESSMENT CONCLUDES RIVER HERRING ARE DEPLETED

River herring (alewife and blueback herring) stocks are depleted to near historic lows according to a new peer-reviewed stock assessment approved on May 1st by the Atlantic States Marine Fisheries Commission (ASMFC).

The assessment team reviewed information for 52 river-specific stocks along the Atlantic coast. Of these, 23 were depleted relative to historic levels, one stock was increasing, and the status of 28 stocks could not be determined because of insufficient data.

For all systems examined, total mortality surpassed sustainable levels. An independent panel of scientists that reviewed and endorsed the assessment noted that "(d)etermining the relative contribution of various factors to this mortality is difficult given the limited data, but it is likely that a number of factors will need to be addressed, including fishing (both in-river and ocean bycatch), water passageways, water quality, predation, and climate change, to allow for the recovery of river herring."

River herring are anadromous, spending years at sea before returning to their natal rivers and streams to spawn. In-river recreational and commercial fishing for river herring is already severely restricted. The majority of states and jurisdictions prohibit river herring harvest in accordance with the ASMFC interstate fishery management plan.

While at sea, river herring congregate with sea herring and mackerel, making then vulnerable to bycatch. Currently there are no restrictions on river herring bycatch in federal waters even though large numbers - an estimated 5 million fish per year - are taken. (see page 5) Both the New England and Mid-Atlantic federal fishery management councils are scheduled to take action at their June meetings to address river herring bycatch. NCMC is urging the Councils to work collaboratively to set limits on bycatch and implement robust catch monitoring and sampling programs.

"The number of river herring taken at-sea is alarming because many are immature and have not had a chance to spawn," said NCMC Executive Director Pam Lyons Gromen who attended the stock assessment meetings. The level of fishing mortality that stocks can sustain is lower when immature fish comprise a significant portion of the catch.

The National Marine Fisheries Service (NMFS) will use the information compiled in the stock assessment to help determine whether or not alewife and blueback herring qualify for a threatened listing under the Endangered Species Act (ESA). The Natural Resources Defense Council filed the ESA petition last August, and in November, NMFS found the petition to merit a full status review. NMFS is expected to issue a final decision by August 5, 2012. ❑

TASK FORCE FINDS CONVENTIONAL MANAGEMENT TOO RISKY FOR FORAGE FISH

In April, the Lenfest Forage Fish Task Force released "Little Fish, Big Impact," a report detailing the findings of a team of 13 preeminent scientists, who for the last three years examined the science and management of forage fish in order to provide practical advice to fishery managers.

The Task Force focused on developing more holistic, ecosystem-based approaches to forage fish management because of the critical role of forage fish as the main energy path from lower to upper levels of the food web. Conventional fisheries management, also referred to as single-species management, is based on the concept of maintaining a maximum sustainable yield (MSY) to the fishery, and considerations are limited to the biology of the target species. Environmental influences and impacts to dependent predators are not taken into account.

Using food web models, the Task Force compared conventional MSY strategies - used to manage most forage fisheries within the United States - to more precautionary approaches and found that "the only fishing strategies that reliably prevented a decline in dependent predators were those that limited fishing to half the conventional rate." Doubling the minimum biomass that should be left in the ocean from the conventional minimum to 40% of the unfished biomass further improved sustainability.

The information available to fishery managers is an important consideration in determining the magnitude of precaution to apply. Halving fishing rates and doubling minimum biomass from conventional levels is sufficient when managers know enough about forage fish interactions with predators and the environment to assess the impacts of fishing. However, in data-poor situations, the Task Force recommends maintaining a biomass floor of at least 80% of an unfished level for existing fisheries, while prohibiting new forage fisheries from developing until information improves.

Forage fish account for 37% of the global catch from wild marine fisheries, and 90% of this catch is reduced to fish meal and oil used primarily in industrial aquaculture. In estimating the value of forage fish to fisheries, the Task Force found that the value of commercial fisheries supported by forage fish ($11.3 billion) was twice the direct value ($5.6 billion). In other words they are worth twice as much when left in the water.

To read "Little Fish, Big Impact" visit:
www.oceanconservationscience.org/foragefish

NCMC TRAVELS

A log of where we have traveled to fight for the fish in the last quarter...

- NCMC Executive Director Pam Lyons Gromen traveled to **Raleigh, North Carolina** for the Atlantic States Marine Fisheries Commission's (ASMFC) River Herring Stock Assessment Review Workshop that took place March 13-15. The assessment concluded that river herring stocks are depleted to near historic lows. (see page 6)
- On March 22nd in **Baltimore, Maryland,** Pam attended a meeting of the Mid-Atlantic Fishery Management Council's Scientific and Statistical Committee where the committee discussed goals for the Council's developing ecosystem plan and special considerations for forage fish in catch-setting practices.
- A meeting of the full Mid-Atlantic Council took place April 10-12 in **Duck, North Carolina**. Pam provided written and oral comments at the meeting, requesting the Council to strengthen its guidance for determining biologically-safe fishing limits, including providing additional clarification for ecological considerations.
- NCMC President Ken Hinman was invited to participate in a West Coast Forage Fish Strategy Meeting sponsored by the American Littoral Society, April 11th in **Portland, Oregon**. The meeting, which came on the heels of a new report from the Lenfest Forage Fish Task Force (see page 6), was a facilitated gathering of about 15 regional groups to share objectives and talk about our respective activities and look for ways to coordinate tactics to further the cause through the Pacific Fishery Management Council.
- The following day, April 12th, Ken traveled to **Seattle, Washington** for a meeting of the Pacific Council's Ecosystem Plan Development Team. The purpose of this meeting was to draft a report and recommendations to the council at its June meeting, with advice on developing a Fishery Ecosystem Plan as well as ways to protect currently unmanaged forage species as a precautionary action.
- NCMC chair Tim Choate, accompanied by president Ken Hinman and representatives from IGFA and the Center for Coastal Conservation, visited Congressional offices in **Washington, D.C.** on April 24th and 25th to answer questions about The Billfish Conservation Act of 2011, which is awaiting action in both the House (HR 2706) and Senate (S 1451).
- Pam was invited to present at a Herring Alliance event that was held in **Annapolis, Maryland** on April 26th where she summarized past and ongoing efforts to protect river herring and shad from unregulated bycatch in industrial trawl fisheries for Atlantic herring and mackerel. The Herring Alliance is comprised of over 50 groups and organizations, including NCMC.
- At a hearing hosted by the Mid-Atlantic Council in **Alexandria, Virginia** on April 30th, Pam testified in support of affording river herring and shad the same conservation and management standards as other federally-managed fish. The Council will convene in June to decide on a final course of action to protect river herring and shad, which will be implemented through Amendment 14 to the Council's Atlantic mackerel, squid and butterfish plan.
- The ASMFC held its Spring meeting in **Alexandria, Virginia** the week of April 30- May 3. Pam represented the Shad & River Herring Advisory Panel on May 1st when the Shad & River Herring Board finalized its position on a New England Council plan to address river herring bycatch in the Atlantic herring fishery. The Board emphasized its support for 100% at-sea observer coverage, improved at-sea catch sampling and measures to reduce river herring bycatch where it is occurring. Pam also attended the Menhaden Board meeting on May 2nd as guidance was developed for Draft Amendment 2 to the menhaden plan (see page 4).
- Ken, a member of the U.S. Advisory Committee to the International Commission for the Conservation of Atlantic Tunas, attended advisory meetings May 1-2 in **Silver Spring, Maryland**. He's a member of the Billfish Working Group, which did early planning for the November 2012 ICCAT meeting, where the commission will develop a multi-year plan to rebuild blue marlin and white marlin populations based on new scientific advice. ICCAT scientists have also been asked to explore the benefits of time-area closures to aid in marlin conservation and report at this year's meeting.
- On May 15th, the Atlantic States Marine Fisheries Commission's Menhaden Technical Committee and Stock Assessment Subcommittee met to begin work on updating the stock assessment for Atlantic menhaden. Ken participated in the meeting, held in **Raleigh, North Carolina**. The results of the 2012 stock assessment will be used to determine the catch reductions necessary to achieve the new, more conservative fishing target adopted by the ASMFC last fall.

FEDS ACT TO REDUCE LONGLINE BYCATCH OF BLUEFIN

The National Marine Fisheries Service is floating ideas for future management of Atlantic bluefin tuna, with an emphasis on reducing bycatch of these threatened giants in the United States longline fishery, including in the Gulf of Mexico, the bluefin's only known spawning ground in the western Atlantic Ocean.

Until July 15th, NMFS is seeking public comment on a recently-released Scoping Document, which can be viewed along with instructions for submitting comments on NCMC's web site, **www.savethefish.org**. The management alternatives that survive this round of comment will be developed through Draft Amendment 7 to the Atlantic Highly Migratory Species Fishery Management Plan later this year.

The issues and objectives under consideration are based on comments received by the agency over the last several years, recognizing that the U.S. longline fishery has a detrimental impact on efforts to restore overfished bluefin tuna to healthy levels. **Four measures long-advocated by NCMC are included in the document and we urge members to contact NMFS to show their support for them**:

- Implement a New Closed Area in the Gulf of Mexico. Closure of the Northern Gulf to longlining during peak spawning months of April through June would significantly reduce bycatch of rare breeders. It could be expanded through the summer months to minimize bycatch of billfish. It is enforceable through electronic vessel monitoring systems.
- Longline Catch Cap by Region or Fleet-Wide. An annual cap on incidental catch of bluefin tuna (landed and discarded), after which longlining would end for the season, would create a strong incentive for tuna and swordfish longliners to avoid bluefin or switch to more selective alternative gears. A bycatch cap would require enhanced observer coverage.
- Transition from Longlines to Alternative Gears. Closures and caps can be used in combination to move the fleet away from longlines to the use of greensticks for yellowfin tuna and buoy gear for swordfish. The shift to these alternative gears would maximize protection for breeding bluefin because bycatch is insignificant while catch rates of target species are high.
- Restrict Length of Longline Gear During Specific Times and Areas. The root problem with longlines is they're too *long*, from 20 – 40 miles, and they're in the water 12 hours or more. Shorter lines and soak times may not help bluefin in the Gulf, where mortality after hook-up is high because of the warm waters and amount of energy expended during spawning. But studies indicate billfish and sharks that are on the line from 3-6 hours have a substantially higher survival rate than fish that spend more time on the hook, even using circle hooks. ❑

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