

The Horizon

Changes

by Ken Hinman

Things do not change. We change. Henry David Thoreau

The intertwined worlds of billfish, billfishing and billfish conservation have changed monumentally within my lifetime – quite literally.

I was born in 1952, the year Hemingway's Old Man and the Sea was published. For me, as for many Americans, this classic tale of an epic battle between an old Cuban fisherman and a great blue marlin was my first introduction to billfish.

Back when I was a kid, few people knew what a "billfish" was, apparently even experienced fishermen. Consider that 1952 also saw publication of *The Wise Fisherman's Encyclopedia*, edited by A.J. McClane, renowned angler, writer and future IGFA Fishing Hall of Famer. You'll be surprised at his definition of *Billfish*:

(1) Small, non-game fish species such as the needlefish, pipefish or salt water gar.

(2) The name billfish is often erroneously applied to the marlin, sailfish and broadbill swordfish. These are more properly classed as Spearfish.



By the time McClane published his indispensable *Field Guide to Saltwater Fishes of North America* in 1965, the definition was firmly established as we know it today. The Billfish family (Istiophoridae) comprises the marlins, sailfishes and spearfishes. Swordfish are a taxonomic family unto themselves (Xiphiidae) but are often included in billfish gatherings because of their shared attributes. They are all large-bodied marine creatures with a distinctive sword-like snout, swim very fast and very, very far, and sit atop the ocean food chain.

The sixties, a decade of revolution, saw big changes in more than taxonomy, changes that would determine the course of billfish conservation for decades to follow. On the sport side, there was the birth of a burgeoning conservation movement.

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RESTORATION PROJECT

Our Mission

Wild Oceans was founded by anglers in 1973. Like the sportsmen before us who pioneered wildlife conservation on land, we are passionate protectors of fish and the wild world we share.

Our mission is to keep the oceans wild to preserve fishing opportunities for the future. To do this, we bring conservation-minded fishermen and pro-fishing environmentalists together to promote a broad, ecosystems approach to fisheries management that reflects our expanding circle of concern for all marine life and the future of fishing.

So much of what we love about the sea, about fish, about fishing, is in the wildness. But that wild world, and the future of fishing, now hangs in the balance. Everything we do, every decision we make, must be guided by a clear vision of the future we want for our oceans and of how the fishing public and responsible consumers will fit into that future.

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Ocean View

At the crossroads

On the long road to change, we encounter twists and turns, roadblocks and detours. Right now, on the way to changing the way we allocate Atlantic menhaden among fishermen and other predators in the ocean (e.g., striped bass), we are at a crossroads.

For well over a decade, the ASMFC's Menhaden Management Board has been stalled at the intersection of "the most important fish in the sea" and the largest commercial fishery on the east coast, unsure of where to go or how to get there.

But finally we're moving. The vehicle for change is Draft Amendment 3 to the Interstate Menhaden Plan - which offers the public a choice between a fast lane to "ecological reference points" (ERPs) and a slower, uncharted route – and it goes out for comment and hearings up and down the coast this fall. So it's time for the many thousands of fishermen and environmentalists, who've been leaning on the horn for so many years, to get out and give the ASMFC a push.

During the years of gridlock, a consensus emerged among dozens of independent fishery scientists around a path forward, a practicable approach to setting population targets and catch limits for forage species like menhaden. It's a common sense 'rule of thumb' based on the ecological importance of prey fish and the impacts of fishing on predator-prey relationships - a science-based approach that accommodates the needs (if not the wants) of the fishing industry and is ready to be implemented right away. It's an approach we described in our 2015 report, <u>Resource Sharing: The Berkeley</u> Criterion: fishing limits designed to maintain the menhaden population at 75% of its un-fished level, considerably higher than the conventional MSY level (~40%).

If adopted, these reference points would stay in place while a team of ASMFC scientists develops multi-species models and evaluates their ability to suggest ERPs more specific to menhaden. This work will be completed by the next stock assessment in 2019, after which the results will be peer reviewed and then tested through what's called a Management Strategy Evaluation. If adopted by the ASMFC, they likely would not be implemented before 2022.

The strongest argument against delay is the prospect of the fishery being managed another 5 years or more using the current, single-species reference points, which would allow for a more than 40% increase over current catch levels, resulting in a loss of the growth in the menhaden stock we've seen in recent years.

With interim ERPs, we'll keep reasonable limits on the fishery, leaving millions more menhaden in the water for predators while allowing fishing at sustainable levels.

This is the choice being put to the public in Amendment 3. Where will the Menhaden Board decide to go when it finalizes the amendment at a special meeting on November 14th? Straight to ERPs in 2018 or take a turn that won't get us where we want to be for at least another 5 years?

We're at a crossroads. This is the chance we've been waiting for, working for, all these years. Hearings will start in September, so check the *Wild Oceans* web site regularly for news and blogs on Menhaden Amendment 3, sign up for action alerts, and make your voice heard.

- Ken Hinman, President

For the Future of Fishing

Wild Oceans is a 501(c)(3) non-profit organization dedicated to keeping the oceans wild to preserve fishing opportunities for the future.

Our 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 fish habitat and water quality

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A blueprint for a values-based swordfish fishery

by Theresa Labriola, Pacific Programs Director

It's no secret that the California drift gillnet fleet holds the title as the west coast's highest bycatch fishery. More than 60 percent of the haul is regularly dumped overboard. It's also the only Category 1 fishery in the California Current, meaning the nets frequently cause death or serious injury to marine mammals. This unsustainable and wasteful gear contradicts Wild Oceans mission to preserve the future of fishing. A recent poll confirmed that Californians' agree and overwhelmingly support moving forward with a ban on the use of drift gillnets. But NOAA Fisheries is moving in reverse by refusing to implement a hard cap or limit on the number of marine mammals and turtles the fishery can injure or kill. Wild Oceans is advocating for a transition to a fishery that reflects the values of Californian's and supports healthy oceans for future generations.

For more than forty years, we've brought together conservation minded recreational fishermen and ocean advocates to solve some of the most pressing problems facing our oceans. Removing drift gillnets from the ocean is no exception. Wild Oceans is working with a growing coalition to change the status quo. As Bill Shedd, chairman of Coastal Conservation Association of California (CCA CAL) expressed: "My sense is that this partnership between Wild Oceans, American Sportfishing Association, International Game Fish Association and CCA CAL is playing an important role that will ultimately eliminate drift gill nets off California and not allow longlines to replace them."

New standards for gear performance play a key role in the transition to

"greener" gear. If managers set performance criteria based on values such as minimizing finfish bycatch and marine mammal interactions or economic stability, then they can objectively make decisions about whether and how to authorize a swordfish gear to achieve these goals. For



At the June Pacific Council meeting in Spokane, Theresa Labriola and Bob Kurz spoke in support of authorizing deep set buoy gear on behalf of Wild Oceans, IGFA, The American Sportfishing Association, and Coastal Conservation Association.

example, *Wild Oceans* supports development of commercial swordfish gear that minimizes bycatch and bycatch mortality, including non-target fish, and requires fewer management and regulatory costs. Others may value the gear based solely on its economic performance and others on the avoidance of marine mammals or endangered species. Without establishing criteria to act as goalposts, managers will continue to struggle to constrict and constrain whether and how fishermen deploy drift gillnets to reach undefined goals.

Once we set performance criteria, we can begin to adopt fishing methods that meet the qualifications and phase out or keep out gear that doesn't. In the Pacific, researchers and fishermen have spent six years developing and testing deep-set buoy gear, a high yield, low bycatch daytime gear that targets swordfish at depth. About 98 percent of the catch is marketable swordfish, opah and thresher shark, a staggeringly different result than other hook and line gear. More than 25 seasoned and novice fishermen have submitted applications to test deepset buoy gear off California.

Performance criteria can also help avoid replacing one problem gear with another. For example, US longline boats operating in the eastern Pacific discard nearly 50 percent of their catch. Because of the history of high bycatch, waste and regulatory costs associated with conventional longlining, we believe maintaining the prohibition on longlines within the west coast EEZ by indefinite moratorium, with the potential for re-evaluation after completion of a bona fide bycatch minimization research program, is absolutely necessary to maximize protection for fish and other wildlife.

The blueprint for a values-based swordfish fishery starts with *Wild Oceans* working with other ocean advocates to pursue performance criteria for a swordfish fishery and then transitioning to gears that meet these goals. With this comes the opportunity to sunset drift gillnets, a wasteful gear that does not achieve our values of low bycatch, low bycatch mortality, and low regulatory costs.

NEW PROTECTIONS FOR MID-ATLANTIC FORAGE BASE EXCLUDE PREY FOR HIGHLY MIGRATORY PREDATORS

Mackerel matters

by Pam Lyons Gromen Wild Oceans Executive Director

In a June 19th letter, the National Marine Fisheries Service (NMFS) informed the Mid-Atlantic Fishery Management Council that it had partially approved the Mid-Atlantic Unmanaged Forage Omnibus Amendment. The Omnibus Amendment, completed by the Council in August of last year, protects over 50 species of unmanaged forage fish from commercial exploitation. Two species, frigate mackerel and bullet mackerel (also called frigate tuna and bullet tuna), did not make the final cut.

"Bullet and frigate mackerel are important prey, particularly for large pelagic species such as tuna, billfish, and sharks, but the information and analysis does not support them as important forage species for Council-managed species," writes John Bullard, the NMFS Regional Administrator for the Greater Atlantic. Despite arguments made by Wild Oceans and our recreational fishing and environmental group allies, NMFS insists that the Mid-Atlantic Council's action, though initiated to safeguard the ecosystem, must have a direct link to a Council-managed fishery. Species included in the omnibus, they say, must be either taken as bycatch or eaten by a Council-managed predator.

"Advancing ecosystem-based approaches to fisheries management demands that we take a broad view of the ecosystem as a functioning whole and avoid a narrow linear focus," *Wild Oceans* asserted in response to the proposed rule explaining NMFS' intent to exclude the mackerels.

As regional fishery management councils strive to broaden management

actions to incorporate ecosystem considerations, they must be granted flexibility to achieve ecosystem-level goals and policies, such as those expressed in the Mid-Atlantic Council's Ecosystem Approach to Fisheries Management (EAFM) Guidance Document from which the idea for the Unmanaged Forage Omnibus originated. Within the EAFM Guidance Document, the Mid-Atlantic Council states, "It shall be the policy of the Council to support the maintenance of an adequate forage base in the Mid-Atlantic to ensure ecosystem productivity, structure and function and to support sustainable fishing communities."

Those sustainable fishing communities undoubtedly should include offshore anglers. According to a 2014 NOAA Technical Memorandum, "Atlantic HMS Angling Permit holders were estimated to have spent \$23.2 million on HMS trip expenditures (e.g., fuel, ice, bait, food), and \$151 million on durable goods (e.g., boats, vehicles, rods and reels). These expenditures are estimated to have contributed \$266 million in total economic output to the economy of the Northeast and Mid-Atlantic regions, \$153 million in value added outputs, \$96 million in labor income, and 1,824 jobs from Maine to North Carolina."

The importance of frigate and bullet mackerel as prey for large tunas and billfishes in Mid-Atlantic federal waters is evidenced by 25 years of stomach content analyses conducted by Virginia Institute of Marine Science Fisheries Department Chair Dr. John Graves, who examined specimens collected during fishing tournaments and concluded that frigate and bullet mackerel are "dominant prey items." Both the International Commission for the Conservation of Atlantic Tunas (ICCAT) and the International Union for the Conservation of Nature (IUCN) concur that these small, schooling, open water mackerels are critical forage for prized big fish.

So where do we go from here to protect the unmanaged prey base for big fish in the Mid-Atlantic? Atlantic billfishes, tunas and sharks are managed by NMFS under its Atlantic Highly Migratory Species Management Division. But NMFS contends its management authority is limited to tunas listed in the Magnuson-Stevens Act: albacore, bigeye, bluefin, skipjack and yellowfin. Ironically, the agency cannot act to conserve prey species directly linked to predators in its own management plan, yet the agency denies the Mid-Atlantic Council the ability to fill this management gap through the Unmanaged Forage Omnibus Amendment.

NMFS does offer a path forward for the Mid-Atlantic Council – the creation of a small tunas fishery management plan, incorporating frigate and bullet mackerel as well as other small members of the tuna family like false albacore. A number of recreational fishermen have urged the Council to address false albacore because of its role as prey and its vulnerability to exploitation.

On July 10th, the Mid-Atlantic Council responded to the letter from NMFS, requesting clarification on the roles of NMFS and the Council, should the Council seek to address frigate and bullet mackerel in a separate action. The issue will be raised at the next Council meeting, August 8-10 in Philadelphia. ■

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A vision for the future

Fishing is our oldest and most intimate connection to the sea. We believe that how we envision the future of fishing may, more than anything, determine the future of the ocean, its variety and abundance of wildlife, and not least of all, its ability to sustain us.

We reject the conventional notion that we can manipulate the sea to produce the species we want in the quantities we demand. Instead, *Wild Oceans* advocates for a more balanced, more natural and far wiser approach to managing marine fisheries, grounded in policies that sustain fishing in a way that protects the broader ecosystem and its living communities. This is our vision.

Are the oceans today in crisis?

Yes. But we prefer the Chinese word for crisis, which is composed of two characters, one for danger and one for opportunity. There is danger if we continue to...

- surrender the oceans to industrialized fishing, fleets using mammoth trawls and multi-mile longlines to maximize catches, while killing non-target fish and other wildlife indiscriminately.
-assess the health of fish populations according to mathematical equations rather than sound ecological principles.
-sacrifice wild-caught fisheries that support local fishing communities in favor of seafood massproduced on offshore "farms".
- zone the sea for multiple, incompatible uses, relegating wildness to a handful of marine parks, as we've done on land.

The Ocean Gives Us Life. Help Us Return the Favor!

If we don't change that future, we will be denying millions of Americans, of this generation and the next and the next, the opportunity to fish, to make a living, to eat fresh seafood and enjoy the wild outdoors with our families. But even more important, a healthy ocean ecosystem is essential to the productivity, stability and resiliency of the planet, the only home we have.

Is there an opportunity for change?

Absolutely, and the time is now. We believe the answer is to change how we think, how we fish, and how we work together to protect fish, fishing and the wild ocean world we share. That means learning to fish as just one among many predators, as part of the natural system. In a word it means learning to coexist with the sea rather than simply exploit it. That is the message that guides our mission, educating policymakers, fishermen and the public. Everything we do, every decision we make, is guided by a clear vision of the future we want for our oceans and of how the fishing public and responsible consumers will fit into that future.

Experienced, successful, unique

Wild Oceans is eminently qualified to lead this effort. We were there at the birth of ocean fish conservation in the 1970s and we have evolved along with it, playing a major role in that evolution, an evolution we describe as an expanding circle of concern for all marine life – from charismatic mega-fauna to lowly prey fish. We occupy a unique niche in ocean conservation; we approach issues with the head of an environmentalist and the heart of a fisherman. Because we walk this thin blue line, we are able to bring conservationminded fishermen and pro-fishing environmentalists together in common cause. Throughout our 45 year history, we've been a catalyst, identifying emerging opportunities to get ahead of the curve, bring groups together to pool our strengths, and establish precedents and principles that lead to long-lasting change - for the fish, the wild world we are both a part of, and the future of fishing.

No easy answers. Only persistent, dedicated advocacy

There are no silver bullets in ocean conservation. We've got to be there, in the trenches, working to influence decisions, which are usually the result of research, education, policy change and a long series of meetings over years. It's not glamorous work, it takes tireless commitment, and it goes largely unnoticed outside a small circle. But we can't win without it. Change does occur – our track record attests to that - but there's no escaping that we have to work hard for it. To do this work, we need the support of people who recognize the need for an organization that is not distracted from its primary mission - to conserve ocean fish and the future of fishing – by mixed priorities; that chooses issues near and dear to fishermen and fishing, then takes positions based on what's best for the resource; that is singularly situated to ally itself with both environmentalists and fishermen along with government agencies and businesses to serve as the honest broker to bring these groups together.

To do this work, we need YOU! Join or donate at **WildOceans.org**. And spread the word to others who care about the future of fishing!

Show off your support for the Future of Fishing

with our new Wild Oceans apparel!

Now available in our WildOceans.org Store!

Women's Vintage Crews



Our *Wild Oceans* women's vintage crew is made from silky soft rayonspandex, then custom-dyed and butter washed. It has a relaxed, boxy fit and wide neckline, and is accented with contrasting binding. Available in white with black contrast or grey with black contrast. Trucker Caps





Two different styles! Both caps feature our *Wild Oceans* swordfish patch and mesh backs. Velcro closure. Perfectly fitting with a low-profile. Please see our web store for a closer look at the designs.

Men's Superfine Jersey Crews



Our *Wild Oceans* men's jersey crew is one of the best-fitting, softest shirt you will ever wear. Superfine, combed ring-spun 100% cotton, custom garmentdyed, and butter washed. Available in white or grey.

Just \$20 each! And 100% of the purchase price supports our conservation programs!

Staff travel log

The Atlantic Menhaden Management Board met May 9th in Alexandria, Virginia to review progress on Draft Amendment 3, which considers changes to the current allocation scheme as well as the implementation of ecosystem reference points. Ken Hinman, a member of the board's advisory panel, attended for Wild Oceans. The menhaden board approved the document for public comment at its summer meeting on August 2nd, also in Alexandria. See the Ocean View, page 2.

On May 13th, Wild Oceans President Ken Hinman participated in a Service of Thanksgiving and Celebration for the Life of Christopher Minot Weld, one of the organization's founders nearly 45 years ago, in **Beverly Farms, Massachusetts**. During the service, Ken was invited to join members of Chris' family in giving Remembrances that captured his many passions, his unique personality, and his lust for life. Wild Oceans Pacific Program Di-rector Theresa Labriola attended the Pacific Fishery Management Council meeting in Spokane, Washington from June 9-13. She provided joint testimony with Bob Kurz, a Board Member of the International Game Fish Association and Coastal Conservation Association of California, encouraging the Council to continue their work to authorize deep-set buoy gear (see page 3). In response, the Council tasked its advisors with preparing a range of alternatives for the Council to review at its September meeting. She also attended ancillary meetings of the Highly Migratory Species Management Team and Advisory Subpanel.

Theresa travelled to **Monterey, California** on July 11-2 for a meeting with partner organizations. They discussed strategies for removing indiscriminate commercial fishing gear from the Pacific and for keeping longlines out. They focused on opportunities to advance the Council's progress towards ecosystem-based fisheries management. Specifically, in September, the Council will choose its next ecosystem initiative, and we are supporting a climate shifts initiative to understand predicted impacts on the ecosystem and explore tools and best practices that better prepare the Council to manage their fisheries in an increasingly variable environment. (see below)

On July 19th and 20th Wild Oceans Executive Director Pam Lyons Gromen participated in the Mid-Atlantic Healthy Ocean Ecosystem Indicators Public Workshop in **Baltimore, Maryland.** Hosted by the Mid-Atlantic Regional Council on the Ocean, the workshop was a key step in implementing the Mid-Atlantic Regional Ocean Action Plan, which recognizes the "need to better understand ecosystem changes as they occur, and how those changes impact and are impacted by human activity." ■

Climate change affects bluefin tuna and its mackerel prey

Warming waters are altering migration patterns and spawning times of predators and their prey. Will changes in fish distribution disrupt key predator-prey relationships? *Wild Oceans* research assistant Megan Carpenter, a recent graduate from the University of Virginia, explored this question by synthesizing climate change research on Atlantic bluefin tuna and one of its preferred prey, Atlantic mackerel.

Atlantic bluefin tuna typically migrate to tropical waters to spawn mid-April to June before the water reaches 86°F. Bluefin require a certain temperature to initiate spawning, around 75°F. Because of this narrow range, scientists believe that ocean warming is highly likely to impact bluefin spawning times and areas, ultimately affecting bluefin tuna population size and fisheries that depend on it. For the western stock of bluefin, April and May could be largely unsuitable for spawning in the Gulf of Mexico by the end of the 21st century. In 2016, scientists reported a startling discovery of bluefin tuna spawning in the Slope Sea, an area offshore of the Mid-Atlantic states.

Bluefin feeding patterns are also changing. Three bluefin were caught along the southeast coast of Greenland in 2012, the first time the species had been recorded in such a cold region. The bluefin were found by fishermen pursuing a favorite prey of bluefin tuna, Atlantic mackerel, which has expanded its range into northern waters, driven by increasing ocean temperatures.

In recent years, the western stock of Atlantic mackerel on the eastern U.S.

coast is believed to have shifted northeast, particularly during the winter months when the U.S. fishery is at its peak. U.S. Atlantic mackerel catches have steeply declined, a reflection of greatly reduced availability. So what does this mean for mackerel predators in our waters?

Shifting fish distribution patterns could have serious implications for the future of fishing. While bluefin tuna, a highly migratory species, seems to have kept pace with Atlantic mackerel, other mackerel predators, especially resident species, may not fare as well.

"It is necessary to keep pushing for research to understand the ecosystem as a whole in a changing climate so that we can best prepare ourselves for the future," says Megan. ■

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On the commercial side, there was the introduction of large-scale longlining for tunas and swordfish. Two trains running on the same track, but going in opposite directions.

Catch, Then Release

Edward Hewitt long ago described the "evolution of the master angler" thus: first, catch as many fish as possible; then, catch the largest fish; and finally, catch the most difficult fish. A fourth stage has since been added – not to "catch" the fish at all, but release it alive.

In his book The Albatross Fleet, my late friend and Wild Oceans board member Jack Cleveland recalled how in 1958 he caught a blue marlin off Cape Hatteras he guessed weighed 300 to 400 pounds and shocked everyone by letting it go. This unusual act of conservation was the talk of the docks and the subject of outdoor columns up and down the coast. Kip Farrington, noted big-game fishing pioneer, wrote and told Jack it was the first release of a blue marlin he knew of.ⁱ Of course. what was news 60 years ago is commonplace now. It's the fisherman that brings a billfish to the dock who raises eyebrows and starts people talking. Today, over 90 percent of sportcaught marlin and sailfish are released alive.

As anglers began releasing more and more billfish, they wanted to make sure the fish survived. Along came circle hooks, championed by people like our chairman Tim Choate, who at his Hall of Fame Induction ceremony last fall called it the sportfishing community's greatest contribution to billfish conservation. It's a simple change in gear with a profound impact on the survival of released fish – about 99%.

Playing Ocean Roulette

In the late 1950s and early '60s, in the waters off Maritime Canada and New England, longlines were introduced into the commercial swordfish fishery, eventually replacing harpoons. Harpooning was a clean fishery, producing thousands of tons of swordfish a year in a sustainable manner. The Nova Scotia Harpoon Association described its way of fishing as "One man, one arrow, one fish....nothing wasted."

It was a pointed comparison to longlining, an industrial-scale fishery with sets upwards of 40 miles long with thousands of hooks. Because of the non-selective nature of the gear, by the late 1980s it had opportunistically taken full advantage of its capacity to catch any large hungry fish swimming by – in my 1998 report, Ocean Roulette, I likened longlining to an underwater minefield – and evolved into a mixed species fishery; that is, indiscriminately hooking yellowfin and other tunas, dolphin, marlin, sailfish and sharks, as well as numerous threatened species, including endangered turtles, marine mammals and seabirds.

Modern longlining, of course, was a global phenomenon, with fleets across the Atlantic and Pacific soon depleting stocks of swordfish, bluefin tuna, marlin and oceanic sharks. Bycatch of marlin and shark were accepted as added value, since there were ready markets for the meat and fins, respectively. In other words, incentives to fish cleanly didn't exist....until much later. _

So for years, fishery managers and conservationists struggled, without success, to find ways to control fishing mortality for any single species, in particular swordfish whose numbers in the Atlantic went into a freefall. That's the world I entered when I joined *Wild Oceans* (then the National Coalition for Marine Conservation) in 1978. These opposing ways of thinking about and fishing for billfish were on a collision course. Something had to give and, happily, over the next several decades it did.

Change for the Future

First, it's important to understand why conserving billfish is such an extraordinary challenge. They are oceanic migrants, spending much of their time in the no-man's-land of the high seas, ignoring political boundaries and demanding cooperation among nations with differing values and objectives; the vast majority die as unintentional bycatch in commercial fisheries for other, more valuable species; with the exception of swordfish, billfish are far more valuable, economically and socially, as a recreational resource, but there is a demand for marlin in global markets, consuming fish that might otherwise be avoided or released.

Over the years, we – and here I'm speaking of this organization and the many other individuals and organizations that have united in common cause – have brought about significant changes to protect the future of billfish.

The Future of Billfish Is Not For Sale. As longline fisheries expanded and became more opportunistic, sales of Atlantic marlin in the U.S. increased. We responded with a 1990 prohibition on sale; a federal ban on selling striped marlin on the west coast followed. Tying up loose ends, the Billfish Conservation Act halted all foreign imports of billfish. Today only traditional fisheries in the western Pacific are permitted.

Taking Stock. While international management bodies struggled with declines in commercially-valuable tunas and swordfish, they didn't even assess the health of marlin and sailfish killed as bycatch in those same fisheries.

Farrington joined the Hall of Fame in 1998, the same year as the aforementioned A.J. Mc-Clane. Perhaps Jack Cleveland, author, angler and conservationist, will one day be so honored. - KH



We took the initiative with a series of international symposia to gather the science and lobbied for stock assessments, paving the way for ocean-wide limits for Atlantic billfish; similar conservation measures are in the works for the Pacific.

Sanctuary. Beginning in the year 2000, we secured safe spaces for billfish and other vulnerable species (sharks, turtles), creating large no-longlining zones in the southeast, in the Gulf of Mexico and off the west coast. As a result, the bycatch of billfish has been vastly reduced from pre-closure days and has helped restore Atlantic swordfish by protecting juvenile broadbill on their nursery grounds.

Gearing Down. The network of east

coast closed areas fostered innovation among commercial fishermen, cultivating the use of smaller-scale, actively-tended gears, namely buoy gear for swordfish and greenstick gear for yellowfin tuna, with insignificant bycatch and bycatch mortality. These changes in the way we fish commercially for big fish are being exported to the Gulf of Mexico (see, NOAA Launches Gulf Restoration Project, p. 10), the west coast (see, A Blueprint for a Valuesbased Swordfish Fishery, p. 3) and to the fleets of other nations fishing the same highly migratory stocks.

No Habitat, No Fish. Billfish, like other wide-ranging predators, depend on healthy oceans and habitat, unobstructed migratory pathways, and an abundant and available supply of prey,

where and when they need it. We obtained international protections for *sargassum* as essential habitat on the high seas (Sargasso Sea) and made preserving the ocean's forage base a national priority, resulting in many prey species put off limits to harvest with more conservative rules for those targeted by fisheries. (see, Ocean View p. 2)

Clearly, during my lifetime there has been so much change, for the better, for billfish and other big fish, and I'm proud to have played a part. But there's more that can and should be done, and I'm committed – and Wild Oceans is committed – to seeing all our good work continue and bring about a healthy future, for the fish and fishing.

OIL SPILL MONEY USED TO REDUCE LONGLINE BYCATCH, MOVE TO CLEANER GEAR

NOAA launches gulf restoration project

A new project aimed at reducing bycatch in the tuna and swordfish longline fisheries got underway in the Gulf of Mexico this spring. The *Pelagic Longline Bycatch Reduction Project* is part of an effort to restore pelagic fish species, including bluefin tuna, billfish, sharks and mackerel, harmed by the disastrous 2010 Deepwater Horizon oil spill. These fish and numerous others are routinely killed as bycatch by fishermen using indiscriminate longlines to catch yellowfin tuna and swordfish.

According to NOAA and the National Fish & Wildlife Foundation, who are jointly administering the project, it is designed to lower fishing mortality during a voluntary suspension of longlining in the gulf each spring. Participating vessel owners who agree to refrain from longlining from January to June will be compensated, through Gulf Restoration Funds collected in a settlement with oil company BP in 2011. During the 6-month "repose," vessel owners will be testing alternative gears, such as buoy-gear for swordfish and green-stick gear for yellowfin, which have demonstrated minimal bycatch in other regions.

The project was launched in 2017 as a 4-month "pilot", March through June, with seven vessels participating, to allow the project designers to evaluate it while continuing to engage with additional fishermen to increase participation in a full rollout of the project in 2018. The project is expected to continue for an estimated five to 10 years.

Wild Oceans is strongly behind the PLL Bycatch Reduction Project, which we view as an innovative means to reduce multi-mile longline gear and its unmanageable bycatch from the gulf during a sensitive period, while helping commercial fishermen change over to more selective ways to catch swordfish and tuna, allowing them to continue fishing, support coastal economies, and supply fresh fish in a sustainable manner.

Your mailing label includes your membership renewal date.

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