

**Wild
Oceans**
For the future of fishing

The Horizon

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MULTIFACETED PROJECT WILL INFORM AND STRENGTHEN PACIFIC BILLFISH CONSERVATION

Introducing the Wild Oceans Kona Project

by Rob Kramer, President

As fishermen, we are inherently curious about the fish we pursue. Where are they going? Where are they coming from? Why do they behave in certain ways? As passionate as we can be in wanting to learn more about our fish, many of us are equally passionate about wanting to protect our fish and ensure that they are around for generations to come. Sometimes these two passions come together, and indeed that is the case with an exciting new multi-year billfish project that *Wild Oceans* has just launched in the Pacific – The Kona Project.

As we have reported before, North Pacific striped marlin are depleted oceanwide, and all species of Pacific marlin are in need of better protection. Meaningful conservation is hampered in part by our lack of knowledge about billfish reproductivity, spawning grounds and nursery habitat. However, therein lies the opportunity. It may just be possible to improve management by better understanding these things, identifying habitat in need of additional conservation measures and

championing better protection for marlin using this newfound information. This is the impetus behind the *Wild Oceans* Kona Project.

Kona-based *Wild Oceans* Board member Captain Jody Bright has been active in the world of big game fishing all his life. He grew up in Texas where he first got the offshore fishing bug after catching a sailfish while in grade school. His family was one of only a handful of families game to venture far enough out into the Gulf to catch billfish in the days before GPS and when Loran C was just getting started. Since that time, Jody has traveled the planet as a respected crew member and captain, fishing for marlin in some of the most remote regions of the world. Along the way he also created a series of successful fishing tournaments and through various conservation efforts, does what he can to help protect a fish that helped shape his life.

In the 1990s while supporting the research of Dr. Mike Musyl in deploying Pop Up Satellite Archival Tags (PSATs) on marlin, Bright also



Photo of larval shortbill spearfish less than ¼ inch long collected in surface slicks in West Hawai'i. Photo: NOAA Fisheries/Jonathan Whitney.

worked with Andrew West – an Aussie working on his Ph.D. in Kona, studying juvenile billfish captured in local current slicks. The work of now Dr. West has been expanded in further scientific studies conducted in near shore waters and slicks, but no one has of yet taken a comprehensive look at the dynamics of billfish larvae discoveries, reported spawning locations and how they are distributed throughout the waters of the main Hawaiian Islands, the Cross Sea Mounts and beyond.

Dr. Musyl and Bright started to discuss how to approach a more comprehensive effort to understanding the dynamics of the entire system, and when Jody relayed these conversations to me, I began to get very excited.

(continued on page 4)

Wild Oceans' Approach to Marine Protected Areas (MPAs)

In our last edition of *The Horizon* (Issue No. 166) we featured a cover story by *Wild Oceans* Pacific Program Director Theresa Labriola titled *Citizens of the Sea*. In this article we spoke about how over the last 40 years our organization has shifted from just focusing on rebuilding important gamefish stocks to embracing the broader picture of protecting entire ecosystems, including the prey and habitat these fish rely upon. With advancements in technology and an ever-growing demand for seafood, these resources are coming under ever increasing pressure.

The current initiative underway to protect 30 percent of our oceans by 2030 presents both challenges and opportunities. In our feature article we tried to convey how critical it is for fisheries managers and politicians to ensure that voices from the fishing community be included in the process to identify areas to be conserved. The message is simple. When we consider new Marine Protected Areas (MPAs), we cannot afford to exclude those who spend the most time on the water and those who will be most impacted by their creation. Including fishermen in the development of conservation measures is by no means a novel concept. Indeed, our own organization was founded in 1973

by recreational fishermen trying to do just that. They got involved because of their passion for the fish and utilized their knowledge gained from firsthand experience on the water to engage in the marine fisheries management process. Both the process and the fishermen benefited.

While this was our intent of the article, some interpreted it as a position statement that fishermen (and fishing) should never be excluded from a particular area for any reason. This is not the case. While unsustainable industrial fishing practices and destructive fishing gear are the primary cause for the decline in fish stocks, we recreational fishermen must realize that we too can have a negative impact. Identifying and protecting ecologically diverse or unique areas that are critical to the health of our ocean ecosystems is all our responsibility, and we must be willing to make sacrifices if the science and data support it.

Many years ago, *Wild Oceans* developed a policy on MPAs which still provides sound guidance today. We suggest five basic criteria or questions that should form the basis for identifying new MPAs and for determining their boundaries and restrictions on human activities. These are:

1. What is the specific conservation problem?
2. Are traditional management measures unsuited and unable to provide the needed protection for this problem?
3. What is the specific geographic area where significant problems exist and where a reserve would be most effective at providing needed conservation for an adversely impacted species or habitat?
4. What specific activities, fishing or non-fishing, are causing adverse impacts to the species or habitat in this area?
5. What specific activities, fishing or non-fishing, are not causing adverse impacts to the species or habitat in the area?

Providing answers to these questions, using the best scientific information available, will facilitate the development of fair and effective reserves. For in the end, we all benefit from healthy ocean ecosystems. To review *Wild Oceans'* policy on MPAs in its entirety as originally written, visit the Resources section of our website, WildOceans.org.

— Rob Kramer, 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

Officers and Staff:

Tim Choate, Chairman
Tim Ervin, Vice Chairman
Rob Kramer, President
Pam Lyons Gromen, Executive Director
Theresa Labriola, Pacific Program Director

Contact Us:
Wild Oceans
P.O. Box 272122
Tampa FL 33688
office: 727.677.8127
web: wildoceans.org

Board of Directors:

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2021 Ocean Honor Roll

With deep gratitude we honor the special individuals, clubs, businesses and foundations that share our commitment to sustainable fishing and a healthy ocean future. Mahalo nui loa! (Thank you so very much!)

The Tim & Karen Hixon Foundation

Joseph & Catherine Johnson Family Foundation

Herbert Kameon Charitable Lead Trust

A.P. Kirby, Jr. Foundation

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Bruce Posthumus

Eric Rogger

William Rowell

Dale Schroeder

Bill Shedd /AFTCO

Eddie Smith, Jr./Grady
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Nick Smith

Skip Smith

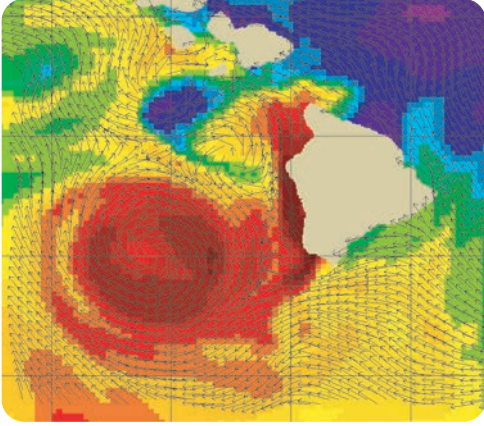
Terry Starck

Peter & Andrea
Truslow

Gillian Wackowski

James Weiss

Susanna B. Weld
West Palm Beach
Fishing Club



The Kona Gyre

The “Kona Gyre” is the eddy system created in the lee of the “Big Island” of Hawai‘i when trade winds and the equatorial current get squeezed through the channel that separates Hawai‘i and the island of Maui (known as the Alenuihaha Channel) and wraps around South Point (which incidentally is not only the southernmost tip of the Big Island, but the southernmost point in the United States). In the lee of Hualalai and Mauna Loa volcanos, they form a dynamic eddy system. Hawai‘i is the largest “boulder in the stream” in the entire north Pacific Ocean and at over 4,000 square miles, you would have to go all the way across to the Philippines to find an island this large. This “gyre” is the dominant eddy for more than 5,000 miles of open ocean, creating one of the most, if not THE most, important spawning grounds for a number of pelagic species in the Pacific.

The *Wild Oceans* Kona Project is a comprehensive effort to advance our understanding of this crucial system and the conservation of Pacific billfish. It has three components: research, management and outreach.

Documenting the Kona Nursery

Research, arguably the most intriguing part of our project, will be led by Dr. Musyl and his team. Dr. Musyl is the owner of Pelagic Research Group LLC. He is a recognized expert in PSAT studies and methods to quantify post-release mortality in billfishes, sharks and turtles. He was awarded

a Ph.D. in population genetics and fish ecology from the University of New England (New South Wales) and earned an M.A. in fisheries biology from the University of South Dakota. Our research goals are to:

- Search and summarize historical reports of billfish (istiophorid) larvae, habitat, and incidence of spawning activity. Meta-analysis will then be used to investigate the information along with variables, such as larval size, depth larvae were found and ocean parameters.
- Develop oceanographic circulation models based on the meta-data compiled from the literature review to determine likely dispersal routes and connectivity of larval istiophorids from known spawning locations.
- Determine peak spawning activity and abundance of larval cohorts of striped marlin as well as blue marlin and other istiophorid species using the meta-analysis and circulation models. Field collections will be used to confirm and identify other potential spawning sites near the Main Hawaiian Islands.
- Investigate in-situ environmental factors to define larval habitat.

Improving Pacific Billfish Management

Longlines, both deep-set and shallow-set, catch more marlin than any other fishing method. While most longliners do not target marlin, they are caught incidentally and kept and sold at market. The non-selectivity of industrial longlining is at the root of marlin population depletion. International and domestic efforts to reduce commercial catch of marlin rely exclusively on catch limits and have proven to be insufficient.

Primarily through the efforts of *Wild Oceans* Pacific Program Director Theresa Labriola, we will expand on the work that we have been engaged in for years to push for more effective management of billfish stocks in the

Pacific. We will first begin by building a coalition of partners to advance domestic striped marlin management measures that address the U.S. relative impact on the overfished stock and to secure international support for a striped marlin rebuilding plan. We will then monitor the domestic and international rebuilding plans, identify measures to further improve the plans, and push to extend similar protections as needed to other Pacific billfish stocks, such as blue marlin. Finally, we will apply the information learned from our research to improve domestic and international management.

Informing and Engaging our Community

We can generate the momentum needed to affect change by engaging others and communicating our findings through a variety of media. As part of this effort, we will disseminate our discoveries and engage partners and stakeholders. A comprehensive web-based platform will be used to centralize information on Pacific billfish stock status, domestic management, conservation measures and threats, current research, and future research needs. The platform will be our primary means of communicating with constituents, coalition partners and fishery managers (domestic and international). The website will also feature regular project updates.

By researching and understanding gaps in our knowledge of billfish life history, we can advance more successful domestic and international management strategies to protect and rebuild marlins. The *Wild Oceans* Kona Project seeks to inform holistic conservation-based management strategies, including those that protect spawning stocks, with the ultimate goal of achieving healthier billfish populations and better fishing opportunities for small boat fishermen and anglers across the Pacific. ■

A Respite for Mako

by Theresa Labriola, Pacific Program Director

In November, after more than a decade of warning about the vulnerability and decline of North Atlantic shortfin mako shark, international managers banned the retention of all shortfin mako sharks for two years. International scientists have advised that a moratorium is the most immediate step we can take to reverse the decline and rebuild the population, but it will still take more than five decades to fully recover this deeply depleted population.

Increased fishing mortality, an international delay in heeding the warning of scientists, and the particular life history of mako shark contributed to a dramatic decline in biomass that resulted in this agreement by the International Commission for the Conservation of Atlantic Tunas (ICCAT) which includes 51 fishing nations and the European Union.

Commercial fishermen using longline gear to catch swordfish or tuna,



hook makos as well. The shark meat is valuable, incentivizing fishermen to keep their catch, dead or alive. Sport fishermen pursue this acrobatic opponent not only because it goes airborne during a strike, but to test their mettle against one of the fastest ocean swimmers and a legendary fighter. Combined landings rose from less than 1,000 metric tons (mt) per year in

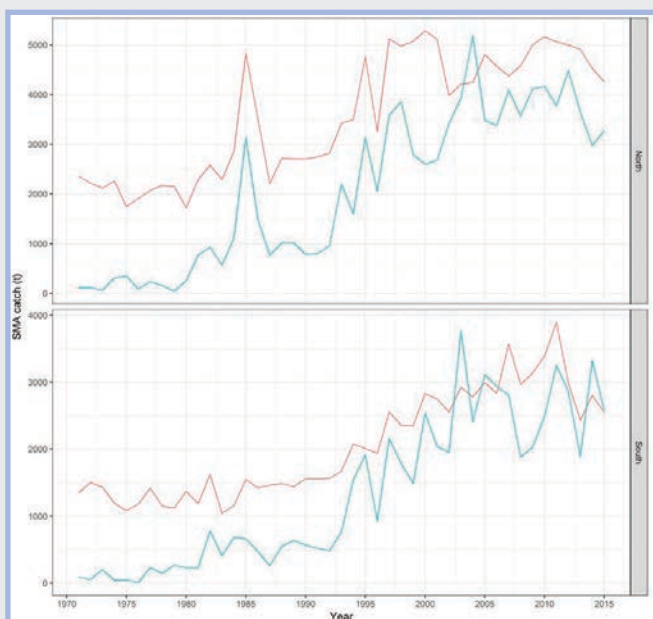
the 1980s to over 5,000 mt per year in the mid-1990s before declining to an average of 2,400 mt per year in the last decade. The catch consists largely of juveniles.

About a decade ago, scientists saw the warning signs and recommended caution for mako and other shark species with the greatest biological vulnerability and retention bans for species with high longline survivorship. ICCAT prohibited retention of big-eye threshers, oceanic whitetip, most hammerhead and silky sharks, but similar protection for mako lagged.

In the meantime, makos' conservative life history, including late maturity and low reproductive output, accelerated the overfishing problem. Shortfin mako sharks grow slowly, and females do not reach maturity until 19 - 22 years of age. Because of this, it is anticipated the spawning stock biomass will continue to decline for many years after fishing pressure has been reduced and until the recruits reach maturity.

Wild Oceans has joined other ocean conservation organizations urging ICCAT to remove all incentives to catch makos by prohibiting landings of all mako. The two-year pause gives managers a clean slate to decide whether and how to allow landing of mako that are dead on arrival and a moment to acknowledge that every death will delay the 50-year return of makos to historic levels. In 2023, ICCAT scientists will discuss the possible retention of a limited amount of dead shortfin mako sharks and identify options to reduce mortality further: closing fisheries in certain areas or periods, safe handling and release practices, and gear modifications.

Makos' only predator is mankind, and our continued commitment to conservation and sacrifice is the only way to protect this apex species. ■



Reported and estimated catches of North Atlantic shortfin mako shark rose dramatically after 1970, precipitating a decline in spawning stock biomass. The Southern Atlantic shortfin mako has seen similar accelerated catch and is also in need of conservation and management. (Source: *Report of the 2017 ICCAT Shortfin Mako Assessment Meeting*)

Turning the Tide

Wild Oceans News and Activities

Large Marine Fish Conservation: Strategies that Rebuild and Sustain Big Fish Populations

- Theresa Labriola, our Pacific Program Director, attended the Annual Meeting of the Western and Central Pacific Fisheries Commission (November 29 - December 6) as a member of the U.S. Delegation. The Commission adopted a revised harvest strategy for Pacific bluefin tuna that will increase spawning biomass to 20% in the next decade. The Commission also expressed continued concern about the overfished state of western Pacific striped marlin. The U.S. reaffirmed its commitment to submit a conservation measure for consideration in 2022.
- For the past three years, Theresa has represented *Wild Oceans* at the NGO Tuna Forum, a coalition of individuals and organizations that work comprehensively on global tuna sustainability issues. Theresa attended the Annual Meeting (January 27-28 & February 2) where members completed Aligned Guidance for Well-Managed Fish Aggregating Device (FAD) Fisheries and At-Sea Transshipment, and recapped 2021 victories, including a ban on Atlantic mako shark retention. (See "A Respite for Mako," p. 5) Priorities for 2022 include the adoption and implementation of comprehensive precautionary strategies for all tunas across all regional fishery management organizations.
- After several meetings to coordinate with our partners from Pew, IGFA and the Ocean Foundation,

Wild Oceans President Rob Kramer along with representatives from these organizations met with the new head of NOAA Fisheries, Ms. Janet Coit, and several other high-level NOAA officials to again push for them to re-close the bluefin tuna spawning ground Gear Restricted Areas (GRAs) to longline fishing in the Gulf of Mexico. Unfortunately, NOAA continues to refuse to budge on their decision to keep the areas open. Since the meeting, we have broadened our coalition to include commercial tuna fishermen and will continue to push for further action.

Sustainable Fishing Practices: Selective Gear that is Compatible with Ecosystem Health

- Theresa has been working to eliminate drift gillnets in the Pacific through an amendment to federal fisheries law. However, until that law is passed by Congress and signed by the President, she continues to advocate for management measures that minimize bycatch. In November, the Pacific Fishery Management Council considered a range of alternatives for adopting hard caps in the drift gillnet fishery. Theresa attended the Council meeting, provided comments, and worked to draft a meaningful range of alternatives. The Council is scheduled to choose a preferred alternative for adopting hard caps at the June 2022 meeting.

Ecosystems: Food Webs, Habitat and Biodiversity

- In November 2015, the Pacific Council tasked its advisors with exploring alternative management and policy

approaches for northern anchovy. Theresa attended the November Council meeting where they adopted a new anchovy framework that requires regular review of the anchovy population, adjustment of catch levels, and consideration of dependent predator needs. She attended the February 2 meeting of the Coastal Pelagic Species (CPS) Management Team where they discussed whether and how to integrate this framework in the CPS Fishery Management Plan.

- *Wild Oceans* Executive Director Pam Lyons Gromen was in Annapolis for the December 14-16 meeting of the Mid-Atlantic Fishery Management Council. Prior to the meeting, she led the charge on a letter, signed by 14 organizations, supporting the inclusion of an unmanaged forage species Exempted Fishing Permit (EFP) review policy and process in the Council's 2022 Implementation Plan – a document that outlines workload priorities for the year. Pam spoke at the meeting, highlighting the group letter and our concerns for the high-volume Atlantic thread herring EFP application that is under NOAA Fisheries review. Pam spoke in favor of other work plan initiatives to better protect forage fish, including an action to implement a possession limit for bullet and frigate mackerel, two important forage fish that are designated as ecosystem component species by the South Atlantic Fishery Management Council. She also supported continued work to explore area closures to better protect river herring and shad at sea. All initiatives were included in the Implementation Plan under a "possible additions" category, indicating that they may be

undertaken if council staff time and resources allow.

- Pam attended the January 25-27 Winter Meeting of the Atlantic States Marine Fisheries Commission (ASMFC) where management actions for striped bass and its main prey, menhaden, were on the agenda.
- ➔ The ASMFC Atlantic Menhaden Management Board reviewed a draft addendum to adjust state allocations, and decided the document needed additional work before it is ready for public comment. Before the meeting, Pam collaborated with other groups dedicated to menhaden conservation to communicate to the Board our concerns about the draft addendum options and their ecological implications. With the menhaden population rebuilt to a healthy level, we would like to see fisheries distributed throughout the species' geographic range, not concentrated in certain regions, especially in and

near sensitive estuaries, and not dominated by industrial-scale fisheries, but enabling the growth of smaller-scale fisheries that support local commercial and recreational fisheries. With the growth of small-scale fisheries comes the responsibility for fishery managers to ensure that their catch is factored into and counts toward the coast-wide quota, which is currently not the case. The addendum will be revised and reviewed by the Board in May for possible implementation by 2023.

- ➔ The Atlantic Striped Bass Management Board approved a draft amendment for public comment. Once finalized, Amendment 7 will become the management plan for striped bass. The last time a striped bass amendment was passed was in 2003, so it is imperative for stakeholders to weigh in to secure a strong management program. See below for details.

Climate Change: Resilient Ecosystems and Fishing Communities

- The Pacific Council's Ad Hoc Ecosystem Work Group met (December 17) to review potential ecosystem initiatives. Theresa attended and asked the team to prioritize those recommended by the Climate and Community Initiative, including incorporation of climate variability into harvest control rules.
- The East Coast Climate Scenario Planning Initiative has entered the third of six development phases. In this third phase, Exploration, participants identify and analyze the major drivers of change through a series of three webinars. A future scenario creation workshop will be held in the spring. Pam remains engaged in this effort and will continue to provide input throughout the process. ■

Time Again to Weigh in for Striped Bass



We are in the final stretch of revising the management program for striped bass, a process that began back in August of 2020, when the Atlantic States Marine Fisheries Commission (ASMFC) Atlantic Striped Bass Management Board voted to initiate Amendment 7 to the Interstate Fishery Management Plan.

In spring of last year, many of you responded to our call for action and sent comments to the ASMFC, telling commissioners to rebuild the overfished population by the required 10-year deadline (2029) and to maintain important provisions in the plan, including biological reference points and ob-

jectives that stress the importance of maintaining biomass at the target level and preserving an expanded age structure in the population. Over 3,000 individuals and organizations weighed in, and it made a big difference. Most of the alternatives that would weaken the plan were removed, and new alternatives were added to deliver on the 10-year rebuilding timeline.

Now we have another bite at the apple, and we have to keep momentum strong as we head down this final stretch. Issues that the amendment addresses include management triggers, recreational release mortality, the rebuilding plan and conservation equivalency. Under each issue is a suite of options, including options that if chosen in concert, will result in a solid management plan for rebuilding striped bass and improving conservation.

However, troubling options remain with the most detrimental ones per-

taining to management triggers that dictate how quickly the Management Board responds when the striped bass population is experiencing excessive fishing pressure, poor recruitment or declining biomass. Under some options, corrective action to halt overfishing can be put off for up to two years. Other options propose eliminating triggers for exceeding the fishing mortality target or falling below the biomass target altogether.

Wild Oceans is taking a deep dive into the options and will be posting detailed recommendations on our website, along with a draft letter that you can choose to edit and submit through our online form. Please stay tuned!

In the interim, please visit the ASMFC's public input page (<https://www.asmfc.org/about-us/public-input>) to view draft Amendment 7, the public hearing schedule and instructions for submitting written comments. April 15th is the last day to weigh in! ■



The Wild Oceans Kona Project...

for Future Generations



P.O. Box 272122
Tampa, FL 33688
www.wildoceans.org

