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Testimony on "Benefits and Access: The Necessity for Multiple Use of Water Resources"

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On behalf of the American Sportfishing Association, I am honored to have been asked to testify before the House Committee on Natural Resources Subcommittee on Water, Wildlife and Fisheries regarding the importance of sound federal policies to support the economic, social and conservation benefits recreational fishing provides to the nation.

The American Sportfishing Association (ASA) is the sportfishing industry's trade association committed to representing the interests of the sportfishing industry as well as the entire sportfishing community. We give the industry and anglers a unified voice when emerging laws and policies could significantly affect sportfishing business or sportfishing itself. ASA invests in long-term ventures to ensure the industry will remain strong and prosperous, as well as safeguard and promote the enduring economic, conservation and social values of sportfishing in America. Recreational fishing is truly an all-American activity. Our fisheries resources, which are held in the public trust and conserved through sound laws and policies, are envied the world over. In 2021, 52.4 million people went fishing in the U.S., supporting 826,000 jobs and contributing \$129 billion to the economy. Fishing is the third most popular outdoor recreation activity, behind only running and hiking<sup>1</sup>.

All of this fishing activity supports the economy, connects people to the outdoors and provides substantial funding for conservation. Through fishing license purchases, excise taxes and direct donations, the recreational fishing community contributes approximately \$1.7 billion toward aquatic resource conservation each year. I am confident in saying that no other user group contributes nearly as much toward ensuring our nation's waterways and fisheries are healthy and accessible to the public.

Our community is also working hard to ensure that the sport continues for generations to come. After about a decade of steady growth in participation, the number of recreational fishermen in the U.S. surged dramatically in 2020, increasing from 50.1 million Americans in 2019 to 54.8

<sup>&</sup>lt;sup>1</sup> Outdoor Foundation. 2021 Participation Trends Report. Available online at: https://outdoorindustry.org/wp-content/uploads/2015/03/2021-Outdoor-Participation-Trends-Report.pdf

million Americans in 2020<sup>2</sup>. As the COVID-19 pandemic disrupted work schedules, travel plans and many in-person activities, Americans turned to the outdoors in record numbers for their physical and mental health, and to pass time.

With COVID-19 vaccines available and life returning closer to normal, fishing participation declined by 4 percent in 2021 to 52.4 million anglers, a number still greater than pre-pandemic. With the return of other activities, we now have more competition for peoples' time, so must work to remind and educate people of why they took up - and hopefully enjoyed – fishing to begin with.

Some of the largest increases in participation have come from Hispanics (increasing by 7 percent from 2019 to 4.7 million in 2021) and females (increasing by 8 percent since 2010 to 19.4 million in 2021). In addition, participation among youth ages 6-17 increased by 14 percent from 2019 to 12.9 million in 2021, providing hope that fishing will continue for generations to come.

Fishing participation is dependent on two primary factors – access and healthy fisheries. Access can take several forms, including physical access to water (e.g., boat ramps, piers, public shorelines) and regulatory access (e.g., seasons, bag limits, size limits, closures). While simply being outdoors and wetting a line is a large part of the enjoyment of fishing, at some level, most people want to actually catch fish too. There are many more effective ways of catching fish than a rod, reel and hook, so for recreational fishermen to have a decent probability of encountering a fish, there have to be a lot of fish in the water.

Decisions that affect fishing access and fisheries conservation are made at every level of government all across the country. While fishing itself can be relaxing and carefree, fisheries policy is generally the opposite. Fisheries management is carried out in a wide range of regulatory and legislative arenas, following complicated processes that often arrive at contentious outcomes.

In the southeastern U.S., where I work, the issues also get more complicated and contentious the further offshore you go. The federal government, via NOAA, manages fisheries in the exclusive economic zone (EEZ), which for the purpose of fisheries management is 3-200 miles off the South Atlantic coast and from 3 or 9 miles out to 200 miles in the Gulf of Mexico.

While there are many important issues affecting marine fishery access and conservation, my testimony today will focus on what I believe are the top four issues currently impacting the recreational fishing community in the southeastern U.S.

<sup>&</sup>lt;sup>2</sup> Recreational Boating & Fishing Foundation and The Outdoor Foundation. 2022 Special Report on Fishing. Available online at: https://www.takemefishing.org/getmedia/155fcbd1-716a-41e5-ad5b-1450b76b9162/2022-Special-Report-on-Fishing.pdf

### **Gulf Red Snapper**

Red snapper is arguably one of the most valued recreational fisheries in federal waters of the Gulf of Mexico, and certainly the most contentious. The fishery is not considered overfished or undergoing overfishing but is in a rebuilding plan.<sup>3</sup> Thanks to state management, Gulf red snapper recreational harvest opportunities have improved in recent years, but challenges remain.

### Great Red Snapper Count

Results of the Great Red Snapper Count (GRSC), which was funded with a \$10 million appropriation from Congress to provide an independent estimate of abundance of Gulf red snapper, indicate that there are more than 118 million red snapper in the Gulf as of 2019. Abundance was previously estimated to be about 36 million fish. The wide disparity in estimates is explained by the GRSC finding a surprisingly large biomass of red snapper over uncharacterized bottom that was not considered in previous stock assessments. Although the GRSC improves our knowledge of red snapper in the Gulf of Mexico, the path to integrating this groundbreaking science into red snapper management and assessment has not been straightforward.

Effective January 1, 2023, NOAA implemented regulations that use a percentage of the baseline GRSC estimate of abundance to increase the overfishing limit (OFL) for Gulf red snapper from 15.5 to 25.6 million pounds (mp). This increase accounts for the abundance of all red snapper over structure and 13% of the abundance from the uncharacterized bottom since most red snapper fishing occurs on artificial reefs, natural reefs, and other structures. The same rulemaking increased the allowable biological catch (ABC), which is equal to the overall annual catch limit (ACL) for red snapper, by 300,000 pounds using the National Marine Fisheries Service bottom longline (NMFS BLL) survey rather than the GRSC. This results in the ABC being an unprecedented 60.1% below the OFL, whereas the previous ABC was 2.6% below the OFL. I'm not aware of any other fishery, at least in the southeast, with such a massive difference between the ABC and OFL. In frequently asked questions issued regarding the final rule, NOAA cites a declining trend in the NMFS BLL survey and uncertainty in the Great Red Snapper Count estimates as reasons for the large difference between the OFL and ABC. Increasing the OFL by a significant margin based on the GRSC, yet only providing a modest increase to the ABC and ACLs for red snapper is confusing to most fishermen, considering the GRSC increased the estimate of red snapper in the Gulf of Mexico by threefold.

After recommending NOAA implement these new limits, the Gulf of Mexico Fishery Management Council (GMFMC) requested catch advice for red snapper be reconsidered using new studies and revised estimates from the GRSC. The GRSC results, revisions to the GRSC estimate for Florida based on a post-stratification analysis, and incorporation of a separate study that estimated red snapper abundance off Louisiana, were then used by NOAA to arrive at a Gulf

<sup>&</sup>lt;sup>3</sup> NOAA Fisheries. Status of Stocks 2021: Annual Report to Congress on the Status of U.S. Fisheries. Available online at: https://media.fisheries.noaa.gov/2022-05/2021%20Status%20of%20Stocks%20RtC\_051022\_FINAL.pdf

wide red snapper abundance estimate of 85.6 million fish. This estimate was then used to generate catch advice scenarios for consideration by the GMFMC's Scientific and Statistical Committee (SSC). Ultimately, the SSC and GMFMC recommended an OFL of 18.9 mp and ABC (and overall ACL) of 16.31 mp. This latest round of catch advice sets a much lower OFL than that implemented by NOAA, seemingly discounting the findings of the peer reviewed GRSC, but increases the ABC based on the same information, thus making more fish available for harvest. This change in catch limits is currently under review and pending implementation by NOAA. Although the GRSC results indicate there are roughly three times as many red snapper in the Gulf than previously estimated, if this proposed rule is implemented, the overall Gulf ACL will increase by a modest 8% compared to the ACL in place before the GRSC was complete. This situation is difficult for experts, let alone the angling public, to understand and explain.

A new research track stock assessment for Gulf red snapper is underway and will be followed with an operational assessment that will provide information about stock status and be used to generate catch advice. On a recent stock assessment webinar, NOAA staff tentatively proposed using 2018 GRSC data as regional indices of abundance in the assessment. We are hopeful that GRSC results can be meaningfully incorporated into the stock assessment to better inform red snapper management moving forward.

### State Recreational Data Calibrations

After two years of testing the concept of state management under exempted fishing permits, in 2020, NOAA delegated each of the Gulf states the ability to set red snapper seasons, bag limits, and size limits for their anglers in adjacent federal waters. State management has been a game changer by providing reasonable private angler access to red snapper harvest that is tailored to local needs while improving recreational catch monitoring compared to the federal Marine Recreational Information Program (MRIP), which provides general trends in recreational catch and effort but was not designed for tracking harvest relative to ACLs. Prior to state management, the federal Gulf red snapper season got shorter every year and was down to just a handful of days. Last year, private recreational angler red snapper seasons set by the states ranged from 57 to 128 days.

Under state management, each state must monitor and constrain harvest relative to their allocated portion of the private angler component of the recreational ACL. To do this, each state uses their own data collection program that is designed to meet the needs of their state and its anglers. For example, Louisiana's program, called LA Creel, replaced MRIP in 2014 to provide more precise, localized, and near real time data on all saltwater recreational fisheries, including red snapper. Alabama and Mississippi designed programs that also provide red snapper harvest estimates independent of MRIP. Florida's program, called the State Reef Fish Survey, was designed to provide more precise and more timely catch and effort data on 13 species, including red snapper, by supplementing MRIP. The surveys from Florida, Alabama, Mississippi, and Louisiana are "MRIP certified" by NOAA, which means they have been peer-reviewed and determined to be statistically valid for monitoring recreational catches.

In the final rule to implement state management, NOAA noted that calibrations that adjust for differences in the state data collection programs and MRIP would be necessary so that 1) landings from each of the different programs can be directly compared and 2) each state's ACLs could be adjusted such that each state's landings and ACL are in the same "currency." NOAA implemented these calibrations effective January 1, 2023. Unfortunately, calibration has created unnecessary strain on Gulf red snapper state management, which has successfully resulted in improved data collection, sustainable access, and until now, minimized the friction between the angling community and fishery managers.

ASA believes the simple calibration ratios that were finalized in this rulemaking calibrate the states' recreational red snapper data to MRIP using methods and data that are not the best available science. Indeed, at their February 2022 meeting, the Gulf of Mexico sub-group of the MRIP Transition Team acknowledged the limitations of the simple calibration ratio approach and recommended that alternative approaches be explored and used in the long term. While the proposed simple ratio calibrations achieve NOAA's goal of converting state data from four of the Gulf states into MRIP "currency" for easy comparison (Texas has never participated in MRIP, therefore did not require calibration), they fail to account for the data collection improvements made through the various state programs, the documented issues with using MRIP for ACL monitoring of Gulf red snapper, and drivers of the differences between the state programs and MRIP. In essence, although state programs like Alabama Snapper Check and Mississippi's Scales and Tails were designed to improve upon and replace the use of MRIP for red snapper monitoring, the ACLs for these states are still derived using problematic MRIP data. The calibration ratios will result in Mississippi and Alabama experiencing severe 50-60% ACL cuts starting this year, which will result in fewer harvest opportunities for anglers, and in turn, have negative economic impacts on the recreational fishing industry and disenfranchise the angling community that has supported and benefited from the data collection and management improvements realized under state management. Given that the GRSC shows a more robust population than previously believed, these cuts will be especially difficult for anglers to swallow.

When the GMFMC approved these red snapper recreational data calibrations, they recommended postponing implementation of calibration to allow the Gulf states and the NOAA Office of Science and Technology time to resolve the differences in the state data collection programs and MRIP, as recommended by both the Council's SSC and a 2021 National Academy of Sciences report to Congress. Unfortunately, these differences have not yet been resolved, even with encouragement and appropriations from Congress. Although a multi-year plan has been developed, the slow progress in resolving this critical need is perpetuating a climate of mistrust and a lack of confidence, and results in anglers being unfairly penalized.

Just two months after NOAA implemented these calibrations, the GMFMC initiated a new action that would update the calibration ratios for Florida, Alabama, and Mississippi based on recommendations from its SSC and concerns that adjustments to the calibration ratios may be warranted. These updates would change the years and/or MRIP waves used in the calibrations

implemented by NOAA, but do not address the need for an alternative long-term approach. Quickly resolving the differences in the state data programs and MRIP should be a priority of NOAA and the Gulf of Mexico sub-group of the MRIP Transition Team so that more appropriate calibration methods can be developed as needed. We encourage NOAA to work collaboratively with the states on this so that both anglers and states trust the calibration process and outcomes.

#### South Atlantic Red Snapper

In terms of rebuilding, Atlantic red snapper is a success story. The fishery has responded to strong regulatory measures taken by the South Atlantic Fishery Management Council (SAFMC) to rebuild the stock. Since 2010, South Atlantic red snapper have rebounded so much that scientists and fishermen both agree the stock is at record abundance and biomass, such that there are now more red snapper in the South Atlantic today than any living person has ever seen. Recruitment of young fish into the population has also been consistently high for nearly a decade. However, success in rebuilding has not translated into successful management that provides reasonable harvest opportunities. The recreational fishery has largely been closed for the past 13 years except for a few weekend openings. Last year's season was two days.

Successful rebuilding also has not affected the status of the Atlantic red snapper stock; the latest stock assessment indicates the fishery is undergoing overfishing and is overfished. Although red snapper are abundant, the fishery is considered overfished because most of the fish in the stock are young, and it is believed that older fish are the key to a healthy population. The stock assessment points to discards from the recreational fishery as the cause of overfishing. As red snapper have become more abundant, fishermen are catching more and are forced to release them when they are fishing for other species outside the red snapper closed season.

Questions have been raised by the SAFMC, scientists, and the public about whether the data and assumed reference points in the stock assessment are leading us to the wrong conclusion about this fishery being overfished and undergoing overfishing. The overfishing designation hinges on discard estimates that are unvalidated, very uncertain, and generally considered unreliable and unsuitable for fisheries monitoring. In addition, much of the fishery independent data used the assessment are from relatively recent studies that do not provide us with a good historical perspective of the fishery, which is problematic for understanding the population dynamics of a fish that can live to be nearly 50 years old. How can red snapper be considered chronically undergoing overfishing when so much progress in rebuilding has occurred that the stock is at record abundance and biomass? Is this record biomass fueling the trend of continuously high recruitment of young fish? What about recruits coming over from the Gulf stock? Are more old fish truly necessary to sustain a healthy fishery, or is it possible that a stock with a lot of young fish can be just as productive as one with a broader range of ages? Better data and a fresh look at the measures of success that are used to assess and manage this stock are needed. Luckily, thanks to \$5.1 million in appropriations from Congress, the Atlantic Red Snapper Count will provide independent data on Atlantic red snapper to inform the next stock assessment.

Despite the serious questions about the reliability of the data and stock assessment, NOAA has informed the SAFMC that they are required to act to end overfishing immediately. At the June 2022 SAFMC meeting, the NOAA Southeast Regional Administrator noted that discard mortality needed to be reduced by 65% to end overfishing and advocated for the SAFMC to consider seasonal and/or area-based bottom fishing closures for all 55 species of snapper grouper as a way "to keep people off the fish."

Thankfully, the SAFMC has thus far rejected this approach. Large area and/or seasonal closures to all bottom fishing would be devastating to the recreational fishing industry and South Atlantic offshore anglers and would sacrifice the ability to achieve optimum yield for the other 54 species in the snapper grouper complex. The remarkable rebuilding progress Atlantic red snapper has made in recent years raises serious questions about the need for extreme and draconian measures to end overfishing of red snapper, especially given the dire economic and social implications for fishermen, the recreational industry, and our coastal communities. ASA supports taking a science-informed approach to red snapper and holding off considering seasonal and/or areabased bottom fishing closures and other significant measures until the South Atlantic Great Red Snapper Count and other data that will improve our understanding of the stock are incorporated into the next assessment, which is slated to begin in 2024. ASA also supports taking a fresh look at the red snapper stock assessment assumptions and reference points before considering significant restrictions so that NOAA, SAFMC, and the public can be confident that they are making the right choice about the future direction of red snapper and the snapper grouper fishery as a whole.

ASA supports reducing dead discards of red snapper, but snapper grouper bottom fishing closures are not the way to get there with a stock that by all measures is historically abundant and has rebounded at an astonishing pace. Soon, the SAFMC is expected to take a final vote to recommend that NOAA reduce the ACL for red snapper and prohibit use of more than one hook per line in the recreational snapper fishery as steps toward ending overfishing of red snapper. ASA supports these measures and the SAFMC's efforts to educate fishermen on use of descending devices and best fishing practices that help released fish survive. Moving forward, we are hopeful that states will obtain exempted fishing permits to test other ways to manage this fishery, improve data collection, and provide harvest opportunities that reflect rebuilding success.

### North Atlantic Right Whale Vessel Speed Restrictions

On August 1, 2022, NOAA announced a proposed rule to broaden the current 10-knot (11.5 mph) speed restriction intended to protect North Atlantic right whales from vessel strikes to include vessels 35 feet and larger (down from 65 feet) and expand the speed zones from discrete calving areas to essentially the whole Atlantic Coast out as far as 90 miles, with these restrictions lasting as long as seven months a year.

These speed restrictions will severely impact offshore recreational fishing in the Atlantic, making fishing grounds that previously took at most a few hours to reach now impossible to get to and from in a single day. Rather than travelling slower, many offshore fishermen will forgo trips entirely, resulting in fewer expenditures and economic activity in coastal communities. Inevitably, many boat owners will question why they own, or would want to purchase, a boat that can't effectively be used for half the year.

To be clear, ASA recognizes that the recreational fishing community has a responsibly to help protect North Atlantic right whales. As America's original conservationists, recreational anglers and boaters proactively support science-based efforts to conserve our marine ecosystems. In many cases, our industry has offered constructive input that was ultimately used to develop management solutions, including sacrificing recreational access for long-term benefits, that meet conservation goals and allow for the continued contributions our sector provides to the nation.

While this proposed rule had been in development for more than a year, NOAA's Office of Protected Resources did not conduct any formal engagement with stakeholders. This lack of engagement helps partially explain, though does not justify, the significant flaws within the rule, including:

- An analysis of NMFS data found approximately 5.1 million recreational fishing trips were taken in this region by vessels 35 65 feet in length since 2008. Assuming all five right whale strikes during that time were from recreational vessels, and that all these vessels were on fishing trips, the chance of a 35 65 foot recreational vessel striking a right whale during an offshore fishing trip is at most 0.000098%, or less than one-in-a-million. Attempting to predict risk on a one-in-a-million chance of a vessel strike is simply not an effective management strategy and highlights the futility of expanding the Seasonal Speed Zones (SSZs) to address such a small possibility of vessel strike interactions.
- NMFS is using unrepresentative whale density values in their risk modelling, thereby creating a significant bias that may overestimate risk to whales from small vessel strikes. NMFS' own technical memo states that, "the high densities predicted along the mid-Atlantic may not be realistic."
- The model assumes 10-meter draft depth criteria when calculating vessel strike risk. However, recreational vessels in this size class rarely have a static draft that exceeds 2 meters. This also creates bias that may overestimate risk to whales from small vessel strikes.
- NMFS underestimates the number of recreational vessels that will be impacted by the proposed rule at 9,200 vessels. However, based on 2021 vessel registration data analyzed by Southwick Associates, there were more than 63,000 registered recreational saltwater vessels measuring 35 65 feet in states across the proposed SSZs.
- NMFS estimates the positive economic output from whale watching in the northeast at \$95.1 million. In contrast, NMFS estimates \$46.2 million in negative impacts for all vessel size classes and regions combined. It is difficult to understand how the economic

benefits of whale watching operations in the northeast exceeds the proposed rule's economic harm to all recreational vessels.

- A sportfishing vessel and a shipping container vessel pose different threats to right whales based on vessel characteristics (e.g., length, draft, traffic patterns). However, instead of developing management options based on known differences in vessel characteristics (mainly traffic patterns), NMFS estimates risk is uniform across all vessels greater than 35 feet which is inconsistent with best available science.
- Enforcement of the proposed rule using Automatic Identification Systems (AIS) would be impractical and could lead to significant human safety risk. AIS is mandatory for certain vessels over 65 feet to improve the navigational safety of the vessel and other vessels operating in the area. AIS is not required on recreational vessels 35 – 65 feet although many boat owners voluntarily carry and operate AIS for the added safety-at-sea benefits. It is a very real concern that operators of boats less than 65 feet may decide to turn off their AIS systems in fear of triggering a speed restriction enforcement action. This would have the unfortunate consequence of reducing navigational safety, boater safety and hampering efforts during search-and-rescue operations.
- Vessel speed is a significant safety feature on a recreational boat. Most recreational boats lack high displacement hull design that often provides ocean-going and commercial vessel stability and the ability to operate safely in significant sea states. The 10 knot speed limit would force recreational boaters to operate in conditions that would compromise safety of the passengers and vessel.

While we strongly dispute that the proposed rule is a commensurate response to the level of risk that 35-65' vessels pose to right whales, we acknowledge that there is some risk, no matter how minimal. Right whales deserve better protection, but vast, blanket speed restrictions that are not based on the best available science are not the solution.

Among the many flaws with this regulatory approach is the high level of non-compliance with existing vessel speed restriction. According to Oceana, non-compliance within existing seasonal management areas ranged from 32.7% to 89.6% over three seasons<sup>4</sup>. It is illogical to take a regulatory approach that has shockingly low compliance among a relatively small number of professional shippers, apply it to a much larger area and to tens of thousands of non-professional vessel operators, and expect success.

Rather than rely on blanket speed restrictions that will have devastating impacts to the marine economy and offer little realized benefit to right whales, we believe the focus needs to be on technology that can deliver real-time monitoring of individual right whales. It is feasible to gather real-time location information on a significant portion of the right whale population and disseminate information to mariners and other vessel operators, which would apply empirically-

<sup>&</sup>lt;sup>4</sup> Oceana. July 2021. Speeding Toward Extinction: Vessel Strikes Threaten North Atlantic Right Whales. Available online at: https://usa.oceana.org/sites/default/files/4046/narw-21-

 $<sup>0002\</sup>_narw\_ship\_speed\_compliance\_report\_m1\_digital\_singlepages\_doi\_web.pdf$ 

based, targeted precaution instead of excessively severe measures that do not accurately reflect actual risk nor can be adequately enforced.

To that end, ASA is grateful that Congress included in the recent National Defense Authorization Act for Fiscal Year 2023 the authorization of a near real-time monitoring and mitigation pilot program for North Atlantic right whales (Sec. 11303 of Public Law 117-263). We urge Congress to fully fund this program. Our industry is eager to work with NOAA, and offers whatever expertise and assistance we can provide, to ensure the success of the near real-time monitoring and mitigation pilot program. We believe this approach offers our best hope of saving right whales from extinction.

# Shark Depredation

Imagine hooking the fish of your lifetime, enduring a long, hard fight to get it to the boat, and at the last second before landing the fish, a shark emerges and engulfs your catch. Few experiences can match the highs and lows of fishing as shark depredation, and unfortunately it is becoming an increasingly common occurrence.

Shark depredation occurs when a shark eats or damages a hooked fish before the fish can be landed. These interactions can be frustrating for anglers when they result in damage to or loss of fish, bait, and/or fishing gear. There are also concerns that increasing levels of shark depredation on hooked fish and scavenging of released fish is reducing fish survival, negatively impacting fisheries, and will eventually contribute to stricter regulations intended to offset or avoid shark interactions. The sportfishing community cares about conservation of all marine life, and the escalating issue of shark interactions with recreational fishing must be addressed for the benefit of all fisheries and the fishing public.

A recent study found that, "77% [of anglers surveyed] had experienced depredation in nearshore and pelagic fisheries in the last five years, with depredation more commonly reported in the southeastern United States."<sup>5</sup> 87% of charter guides surveyed said they experienced depredation with clients, resulting in a negative business impact. This research underscores the economic burden and negative attitudes generated from shark interactions.

In the United States, sharks are managed at state, interstate, and national levels and through international treaties. Historically, shark populations were significantly reduced primarily due to overfishing. Over the past few decades, management under the Magnuson-Stevens Fishery Conservation and Management Act has focused on rebuilding overfished stocks and maintaining sustainable shark fisheries. As such, the United States has achieved increases in populations of many shark species<sup>6</sup>. Despite this progress, several shark species are expected to be in rebuilding

<sup>&</sup>lt;sup>5</sup> Grace A. Casselberry, Ezra M. Markowitz, Kelly Alves, Joseph Dello Russo, Gregory B. Skomal, Andy J. Danylchuk. When fishing bites: Understanding angler responses to shark depredation, Fisheries Research, Volume 246, 2022.

<sup>&</sup>lt;sup>6</sup> Peterson et al. 2017. Preliminary recovery of coastal sharks in the south-east United States. Fish and Fisheries (18):845-859.

plans for decades because they are slow to grow and reproduce; prohibited from harvest for conservation purposes; and/or listed under the Endangered Species Act.<sup>7</sup>

Although this multi-layered management framework has contributed to the success in rebuilding shark stocks, it also presents constraints in how fishery managers can respond to increasing shark interactions. Human conflicts with sharks are expected to further increase as shark populations continue to improve. This will require fishery managers and scientists to collaborate with the recreational fishing community on solutions, while considering the complexities of shark fishery management and science.

We support a variety of methods to protecting sharks across four pillars: Education, Management, Policy and Research.

## Education

Given the apparent increase in the frequency of shark interactions, ASA believes educating anglers on how to avoid and respond to them should be a priority in the short term. Guidance should include information on the following strategies:

- Relocation
- Teaching the best methods for landing a fish quickly.
- How to avoid depredation when releasing fish.
- Use of shark deterrents, such as magnetic technology, that can redirect sharks away from boats.

As we learn more about shark interactions and how to address them, ASA expects educational messaging to evolve. We look forward to engaging with fishery managers and other organizations on developing a public messaging campaign surrounding shark encounter education.

# Management

We urge NOAA and other fishery managers to consider how shark management measures can impact fisheries and vice versa. NOAA should consider several strategies to manage shark and fish interactions, which could include designing a more holistic management approach that accounts for and balances species interactions, allowing anglers to turn discards into retained fish and allowing anglers to retain fish damaged by sharks.

Harvest increases for shark stocks that are considered healthy and contribute to depredation should also be considered if supported by sound science. However, we caution against expanding the use of indiscriminate commercial fishing gear on sharks, which can create increased bycatch of important recreational fisheries, sea turtles and other protected species.

<sup>&</sup>lt;sup>7</sup> NOAA HMS, 2021. 2021 Stock Assessment and Fishery Evaluation Report for Atlantic Highly Migratory Species. National Marine Fisheries Service, Atlantic Highly Migratory Species Division. 250 pp.

## Policy

It appears that shark depredation of targeted and scavenging of released fish may not be simply opportunistic, but a learned behavior. For example, shark dive tours in which sharks are attracted to dive sites by feeding may teach sharks to associate humans and their vessels with food. The Magnuson-Stevens Fishery Conservation and Management Act (MSA) currently prohibits shark feeding off Hawaii and the Western Pacific because of such concerns. ASA supports amending MSA to end the practice of shark feeding nationwide.

## Research

ASA supports ongoing and future research to better understand the occurrence and causes of shark conflicts with fishing vessels. Specific shark research needs include the following:

- The species involved, locations and seasonality of shark interactions.
- Prioritizing shark stock assessments to evaluate harvest opportunities.
- Physiological cues, which may have led sharks to become habituated to people and environmental cues.
- How angler behaviors and regulatory frameworks influence shark interactions.
- Additional techniques and strategies for limiting shark interactions, including the use of deterrents.

Lastly, ASA recognizes that there is a wide array of government and non-government entities that are affected by and should be involved in addressing this challenge. Unfortunately, coordination across the fishery management community on how to tackle shark depredation has been severely lacking. ASA supports the establishment of a multi-disciplinary task force to encourage coordination and communication and identify priorities and funding opportunities for research and strategies to address shark interactions.

Increasing shark depredation is negatively impacting fishing experiences, threatening the safety of sharks and humans, and negatively impacting the sustainability of targeted fish populations. ASA believes that fishery managers need to move beyond identifying the challenges with shark interactions and begin working collectively on solutions.

# **Conclusion**

Thank you again for the opportunity to provide the sportfishing industry's perspective on some of the top challenges impacting marine recreational fishing in the southeastern U.S. We are grateful for the ongoing work of the House Natural Resources Committee to advance legislation that will strengthen the management and conservation of the nation's public lands and waters. We look forward to working with the Committee on legislation that impact the recreational fishing industry and America's 52 million anglers.