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March 10, 2023

The Honorable Cliff Bentz, Chairman
Subcommittee on Water, Wildlife, and Fisheries
U.S. House Committee on Natural Resources
Washington, D.C. 20515

The Honorable Jared Huffman, Ranking Member
Subcommittee on Water, Wildlife, and Fisheries
U.S. House Committee on Natural Resources
Washington, D.C. 20515

RE: Using and accessing federal water resources - Gulf of Mexico red snapper

Dear Chairman Bentz and Ranking Member Huffman:

Ocean Conservancy[1] offers the following perspectives on the management of the private recreational sector of red snapper in the Gulf of Mexico, as it was a featured topic in your subcommittee hearing on March 8, 2023, entitled, "Benefits and Access: The Necessity for Multiple Use of Water Resources."

Red snapper is a commercially and recreationally important fish stock to the Gulf of Mexico region, and management of the fishery must rebuild this stock while balancing efforts to allow fair and accountable access to the resource. Decades of management innovations have improved the health of the stock, increased the stability and profitability of coastal businesses, and expanded recreational fishing opportunity. However, recent management measures, particularly the necessary refinements to the state management system for the private recreational fleet and efforts to incorporate the Great Red Snapper Count into the fishery management system, have been subject to significant misunderstanding by the public. As many of the statements made in the hearing regarding red snapper do not align with the facts or the reality of the situation on the water, we offer these perspectives on the management of Gulf red snapper.

In particular, we note the following key points:

- Red snapper in the Gulf of Mexico is a stock still rebuilding to healthy levels after overfishing drove the population to historically low biomass.

[1] Ocean Conservancy is working to protect the ocean from today's greatest global challenges. Together with our partners, we create evidence-based solutions for a healthy ocean and the wildlife and communities that depend on it.

- Every sector that targets or interacts with red snapper—the shrimp trawl fleet, the commercial sector, the for-hire sector, and the private recreational sector—has needed new management measures to restrict catch to sustainable levels as part of efforts to rebuild the stock.
- The private recreational sector is the last sector to experience significant management reform.
- "State management" is a management approach for the private recreational sector that allows the Gulf states to manage private anglers and their catch throughout the Exclusive Economic Zone. As part of this approach, each state must ensure catch stays under its allocated quota. However, overfishing has continued to occur under state management.
- There are concerning signs that the red snapper population is in decline in the Gulf.
- In order to use the best scientific information available to monitor catch levels in the private recreational fishery, calibration ratios ("common currency") were collaboratively developed to allow state and federal data systems to work together, as intended by their complementary designs. These ratios have recently been implemented and are necessary to ensure management complies with the Magnuson-Stevens Fishery Conservation and Management Act (MSA).
- State and federal surveys provide the most information for management when their data are used in complementary ways.
- Calibration ratios, like all scientific considerations in fishery management, will continue to be refined and improved over time. However, fishery management is required to use the best scientific information available at the time of the management decision being made, and so it is appropriate for existing calibration ratios to be implemented. Managers have ample opportunity to revise calibration ratios for use in future management decisions at the Gulf of Mexico Fishery Management Council ('Gulf Council').
- The Great Red Snapper Count (GRSC) is being considered in the next stock assessment process. This is the appropriate venue for this new information because the abundance estimate from the GRSC should not be considered independently of the other biological factors of the stock. For instance, a higher abundance estimate may mean that red snapper is less productive than previously estimated. Suggestions that catch levels should have simply been multiplied based on the results of the GRSC fundamentally misunderstand or misrepresent the considerations that go into fishery population studies.
- We note that the GRSC is already being used to set the highest catch levels ever in the fishery.

Significant overfishing of red snapper led to management changes for all sectors

The red snapper stock was first put into a rebuilding plan in 1990 after overfishing drove it to just 2% of its historic levels; the rebuilding plan was revised in 2005 after insufficient progress was being made to recover the stock.[2] In order to rebuild the stock, managers needed to address two key problems. First, they needed to further reduce bycatch of juvenile red snapper in the shrimp trawl fleets. This was accomplished in 2008 by implementing bycatch reduction devices and establishing shrimp trawl fishing

[2] Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Reef Fish Fishery of the Gulf of Mexico; Red Snapper Rebuilding Plan, 70 Fed. Reg. 32266 (June 2, 2005).

effort thresholds.[3] And second, managers needed to prevent overfishing from occurring in the directed red snapper fishery; this remains an ongoing challenge.

The directed red snapper fishery is divided into two sectors for management and allocation purposes: commercial, allocated 51% of the quota, and recreational, allocated 49%. The commercial sector is managed through an Individual Fishing Quota (IFQ) program implemented in 2007.[4] Since IFQ implementation, the commercial sector has complied with its catch limit every year. The recreational sector is then further subdivided into two components: private recreational anglers, who fish from their own private boats, and the for-hire sector, who operate charter vessels and headboats that take paying customers out into the Gulf to fish. This subdivision of the recreational sector is referred to as "sector separation," and since its implementation in 2015, the for-hire sector has also stayed under its catch limits.

Having successfully addressed key sustainability issues with the shrimp fishery, commercial red snapper sector, and for-hire red snapper sector, managers then turned to improving management of the private recreational fleet. The private recreational sector faces several management challenges: there are millions of individual anglers, they can leave on fishing trips from anywhere in the Gulf (as opposed to leaving from specific ports and marinas), it is difficult to collect data on their activities, and estimating bycatch (discards) and the mortality of those discards is difficult. Further, as the red snapper stock began rebuilding from the combined efforts of the other fishing sectors, recreational anglers regularly exceeded their annual catch limits. This was driven in part due to the size of the fish they caught, and also because long seasons in state waters allowed for anglers to catch lots of red snapper before the federal fishing season began. As a result, federal season lengths significantly contracted, down to as few as three days in 2017.

To be clear, the vast majority of private recreational fishermen are conservationists and are doing everything they can individually to follow the rules—they fish when the season is open, they only keep as many fish as they are allowed, and they try to carefully release fish that can't be brought back to shore. However, the sheer number of recreational fishermen in the Gulf and the challenges of accurately accounting for their activities have led to persistent catch overages. Managers needed to address these issues, and they have tackled it with a combination of expanded data collection efforts and new management approaches.

State management of private anglers contained a serious data flaw that allowed overfishing

State management is an attempt to improve the fishing experience of recreational anglers while finally implementing accountable, sustainable management for the private recreational sector in the Gulf. Under state management, each of the five Gulf states—Florida, Alabama, Mississippi, Louisiana, and

[3] Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Reef Fish Fishery and Shrimp Fishery of the Gulf of Mexico; Amendment 27/14, 73 Fed. Reg. 5117 (February 28, 2008).

[4] Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Reef Fish Fishery of the Gulf of Mexico; Amendment 26, 71 Fed. Reg. 67447 (November 22, 2006).

Texas—is authorized to manage a portion of the total private recreational annual catch limit for federal waters. The proportions of catch given to each state were decided by the states themselves and implemented as fixed amounts in the fishery management amendment that established state management, Amendment 50.[5] With Amendment 50, each state took on the responsibility for setting management measures that would keep its catch under its quotas for fishing both in state waters and out to 200 nautical miles (the limit of the Exclusive Economic Zone of the U.S.). This includes the responsibility to accurately monitor the red snapper catch of anglers in state and adjacent federal waters throughout the year and ensure that the landings stay below limits.

However, state management suffered from a major data problem: separating out the reporting responsibility to the five Gulf states meant that each was now using a different survey methodology to estimate landings, and the data from these different surveys could not be directly compared to each other or to their allocated federal quota. In essence, managers couldn't compare landings to quota because each one was calculated in a different "currency," and there was no methodology, or calibration, implemented to convert among them (a problem akin to having multiple currencies used in different countries with no currency exchange rate). As noted by NOAA Fisheries, "Whenever existing and new surveys produce estimates that are systematically different from one another, calibration is an essential step that must occur before the new estimates can be used in science and management."[6]

This lack of calibration between these different sources of data has allowed excessive recreational fishing in each year since state management was implemented. It was particularly notable in 2019, when recreational fishing drove the combined Gulf red snapper fishery (all sectors) over the overfishing limit (OFL) for the first time in over a decade.[7] This exceedance of the OFL put the rebuilding of the stock, which benefits all fishermen, at risk. If fishery management measures are set in a way that fails to restrain fishing below annual catch limits, allows fishing to exceed the overfishing limit, and fails to implement a rebuilding plan, as in this case, they are inconsistent with the requirements of the MSA.

To fix the data issues in state management, a multi-year process was initiated to develop the necessary calibration ratios that would make appropriate comparisons between landings and quota possible. This process is often referred to as developing a "common currency," and it involved the managers and scientists from each of the Gulf states, NOAA Fisheries, the Gulf States Marine Fisheries Commission, and the Gulf Council. In July 2019, NOAA Fisheries' Office of Science and Technology (OST) released a white paper that identified a range of acceptable methods to calibrate data across scientific surveys; they concluded that without a calibration, comparison of state survey landings with an ACL derived from

[5] Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Reef Fish Fishery of the Gulf of Mexico; Amendments 50A-F, 85 Fed. Reg. 6819 (February 6, 2020).
[6] NOAA Fisheries, Statistical Calibration Overview, https://www.fisheries.noaa.gov/recreational-fishing-data/statistical-calibration-overview
[7] Gulf of Mexico Red Snapper Landings. Tab B, No. 6a, August 25, 2020. https://gulfcouncil.org/wp-content/uploads/B-6a-SERO_RS_CouncilSlides082020updated.pdf, slide 6.

the Marine Recreational Information Program's (MRIP) survey would be "statistically indefensible."[8] The calibration ratios developed during this process are simple calibration ratios (the ratio between catch estimates produced by running the state and federal monitoring systems side by side), a common approach that enables for calibrations to be developed more quickly and allowed each state to use its own calibration method.

In April 2021, the Gulf Council formally adopted these calibration ratios, which were approved for use by their Scientific and Statistical Committee (SSC) (making them the best scientific information available), to be implemented in January 2023.[9] NOAA Fisheries recently issued the final rule implementing these critical calibration ratios, and they will go into effect for the 2023 fishing season that starts for some states in May. With this rule, states can still manage to meet the needs of their anglers while improving accountability for the sake of the long-term sustainability of the red snapper resource for all users. Implementing these calibration ratios will necessarily rein in recreational fishing in some states, which can come at a cost to local anglers. However, implementing common currency was required to restore management that complies with the MSA, and these actions were necessary to fairly and sustainably manage this public resource.

Refinements to calibration ratios are going to be an ongoing need to ensure the successful implementation of state management. As long as multiple surveys are being used to estimate red snapper landings, there will need to be a way to scientifically convert between them. Ongoing revisions and refinements to calibration ratios can occur, and should occur in particular if new data become available or if changes are made to survey methodologies. These refinements do not imply that existing calibration ratios should not be used. The MSA requires that managers use the best scientific information available to manage stocks and not wait until some future, potentially more preferable scientific information is available. It is necessary to implement the existing calibrations, and managers can take further action to implement revised calibration ratios once they are available. We should also expect calibrations to be essential to the stock assessment process for red snapper.

The red snapper stock is showing signs of decline

Currently, Gulf red snapper is more than halfway through its 27-year second rebuilding plan, and it is critical to meet the deadline of having a healthy stock by 2032 for fishermen and communities in the region. During the course of this plan, the stock has improved and is no longer considered overfished, but it has not yet rebuilt to a healthy level. However, as noted above, excessive landings by some states fishing under state management over the last six years have caused red snapper to undergo overfishing in 2019.[10] Most concerning is that two of the most reliable data series (both fishery-independent and

[8] NOAA Fisheries Recommends Source of Recreational Catch Statistics for Assessing Gulf Reef Fish Stocks https://www.fisheries.noaa.gov/feature-story/noaa-fisheries-recommends-source-recreational-catch-statistics-assessing-gulf-reef, Published August 7, 2019.

[9] Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Reef Fish Fishery of the Gulf of Mexico; Red Snapper Data Calibrations and Harvest Levels. 87. Fed. Reg. 74014 (Dec. 2, 2022).

[10] Gulf of Mexico Red Snapper Landings. Tab B, No. 6a, August 25, 2020. https://gulfcouncil.org/wp-content/uploads/B-6a-SERO_RS_CouncilSlides082020updated.pdf. Slide 6.

fishery-dependent) are showing signs of decline. The bottom longline survey data[11], one of the longest-running independent surveys used to estimate the abundance of red snapper in the Gulf, has shown that rebuilding progress has stalled, and worse, potentially has started to reverse. In a troubling sign from another long-term fishery-dependent indicator, catch rates in the for-hire sector appear to have declined.[12] Further, some fishermen in the Gulf are reporting significant problems catching red snapper that they can keep, suggesting that excessive fishing has noticeably depleted the fish stock in certain areas. This is particularly notable off the coast of Alabama, where anglers are catching only about a third as many fish as they did just two years ago.[13] With the for-hire and commercial sectors fishing accountably, the private recreational sector is most likely the root cause of these recent red snapper stock declines. Should this level of fishing damage the overall health of the red snapper stock, it is not just private recreational anglers that will suffer—all sectors will end up taking cuts to their quota if the stock declines.

State and Federal data are designed to work together

Red snapper management works best when all available sources of data are leveraged. A primary source of data in the Gulf is MRIP, which is a state–regional–federal partnership and survey program that uses a range of survey methods to estimate total recreational catch. Resulting data from MRIP are used to inform assessment and management. The development of MRIP, meant to address some of the inherent challenges of collecting recreational fishing data, has, according to the National Academies of Sciences, Engineering, and Medicine (NASEM), "resulted in significant improvements to recreational catch and effort surveys."[14] As part of these improvements, a review found that MRIP has "an implementation approach that incorporates the flexibility required to address unique regional and state needs while at the same time maintaining the standardization and national-level cohesion," and that "the program has evolved to become a compilation of regionally based data-collection programs and is better prepared to address data needs at regional and state levels."[15]

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[11] NOAA Fisheries, Sustainable Fisheries Division, Southeast Fisheries Science Center, "Traditional" Interim Assessment of Gulf of Mexico Red Snapper, Meeting of the Gulf Scientific and Statistical Committee, April 1-2, 2020, available at https://gulfcouncil.org/wp-content/uploads/05a.-RS_Traditional_Interim.pdf.

[12] NOAA Announcement of the 2022 Gulf of Mexico Red Snapper Recreational For-Hire Season, Gulf of Mexico Fishery Bulletin (Apr. 25, 2022), https://www.fisheries.noaa.gov/bulletin/noaa-announces-2022-gulf-mexico-red-snapper-recreational-hire-season. (The most recent season length announcement stated that "[b]ecause the daily catch rate was lower from 2019-2021 than it had been in the recent past, the season length will increase to 79 days this year." A 79-day season length computes to a catch rate of approximately 36,000 lbs/day (ACL divided by days open). When compared to the 2017 average catch rate of 47,753 lbs/day, this indicates a 34% reduction in daily catch rates.).

[13] Alabama Department of Conservation and Natural Resources, 2022 Red Snapper Landings Summary, https://www.outdooralabama.com/2022-red-snapper-landings-summary

[14] National Academies of Sciences, Engineering, and Medicine 2021. Data and Management Strategies for Recreational Fisheries with Annual Catch Limits. Washington, DC: The National Academies Press. https://doi.org/10.17226/26185 at 1.

[15] The National Academies of Sciences, Engineering, and Medicine. 2017. Review of the Marine Recreational Information Program. Washington, DC: The National Academies Press. doi: https://doi.org/10.17226/24640 at 12.

In order to better understand catch of red snapper in the Gulf, supplemental state survey programs were designed to complement the general MRIP surveys and address the unique needs of each state. In a 2021 review of MRIP and recreational fishing data, the NASEM recommended that supplemental surveys can provide a number of benefits to inform timely catch estimates when used *in conjunction* with MRIP.[16] Thus, the state supplemental surveys function best not as a replacement to MRIP, but as a complement, enhancing the data available to improve in-season management and stock assessments, which can ultimately lead to better management of the stock.

Each survey has its own methods and inherent biases, which means that results from different surveys can vary even when the surveys are each appropriately designed and capable of producing statistically robust data. The NASEM notes that, "differences among estimates can be moderate, or quite substantial,"[17] which necessitates calibration among the various surveys to ensure consistency. Without a calibration, the landings from state surveys stand alone and cannot be integrated to assess a stock population as a whole.[18] For instance, some state surveys are intended to provide in-season data collection but do not collect landings information outside of the directed season. These differences in data collection mean surveys cannot be used interchangeably, but they can be integrated together to better inform our total understanding of red snapper catch.

Though the state surveys in the Gulf have been certified by MRIP, certification is not the same as calibration.[19] MRIP certification of a state survey does not presume landings estimates produced represent the best scientific information available (BSIA) or imply that they are suitable for in-season management. Rather, certification indicates a data collection program meets a certain level of statistical rigor and that it qualifies for technical and financial support from NOAA Fisheries. After that, calibration is the process that accounts for differences between surveys and standardizes the estimates to a common currency, such as to a historical time series from MRIP. It is important to note that calibration does not imply anything about the quality of one survey over another; calibration merely offers a method for estimates from different surveys to be put into the same currency by reconciling differences. Calibration is important because in converting estimates to the same currency, it preserves the continuity of existing time series.[20]

The Great Red Snapper Count should be incorporated into the stock assessment

The Great Red Snapper Count (GRSC) was a congressionally mandated and funded study to take a one-time snapshot of the total abundance of red snapper in the Gulf of Mexico. Abundance studies like the

[16] National Academies of Sciences, Engineering, and Medicine 2021. Data and Management Strategies for Recreational Fisheries with Annual Catch Limits. Washington, DC: The National Academies Press. https://doi.org/10.17226/26185.
[17] *Id.* at page 5.
[18] NOAA Fisheries Recommends Source of Recreational Catch Statistics for Assessing Gulf Reef Fish Stocks https://www.fisheries.noaa.gov/feature-story/noaafisheries-recommends-source-recreational-catch-statistics-assessing-gulf-reef Published August 7, 2019
[19] NOAA Fisheries, Transitioning to New Recreational Fishing Survey Designs, https://www.fisheries.noaa.gov/recreational-fishing-data/transitioning-new-recreational-fishing-survey-designs
[20] *Id.*

GRSC, if done rigorously and used appropriately, can provide helpful information about the stock and the fishery that can be considered in management. However, there has been an enormous amount of confusion around the appropriate uses of the GRSC for both science and management. With Congress continuing to fund additional abundance studies, it is critical that these misconceptions are addressed.

The GRSC included larger estimates of red snapper occupying uncharacterized bottom (UCB, essentially describing areas that are not obviously reefs) in the Gulf than had previously been estimated. These areas have consistently been surveyed by the long-standing bottom longline survey in the Gulf, which is used to track trends in stock health over time. The preliminary abundance estimate calculated by the GRSC for the total abundance red snapper in the Gulf was 118 million fish, a number which was publicly celebrated prior to peer review of the study (creating extreme confusion surrounding the scientific process). After initial peer-review, the abundance estimate has since been revised down to 85.6 million fish and has been integrated for use in management. Though abundance estimates provide a useful indicator for managers, attempts to frame this number as "correct" and previous abundance estimates as "wrong" are deeply misguided. All factors estimating the productivity, natural mortality, and recruitment of a fish stock are interrelated. For instance, an outcome from the abundance estimates of the GRSC is that scientists may need to reconsider how productive the red snapper stock is, as it is very possible that productivity may have been overestimated. In other words, here is a plausible scenario: before the GRSC, scientists thought there was a smaller, more productive red snapper stock; after the GRSC is incorporated, it is possible there is a larger, less productive red snapper stock. It is important to get this right because if managers were to reflexively and dramatically increase catch levels based solely on the new GRSC estimate and the stock were less productive than estimated, the new fishing levels could quickly decimate the stock.

With this context, it is much easier to understand the challenges faced by scientists on the Gulf Council's SSC in the two times they have been asked to set catch recommendations based on preliminary GRSC estimates before those estimates had been incorporated into a stock assessment. The first time, the GRSC had not been formally peer reviewed; an expedited peer review of the study occurred at the same meeting where the SSC was asked to set catch limits using the GRSC results. The three independent peer reviewers brought up notable concerns about the methods used both in the study itself as well as in the agency's application of the study through an 'interim assessment,' rather than through a full stock assessment within the Southeast Data, Assessment, and Review (SEDAR) process.[21] SSC members were split on how to incorporate the information, ultimately setting a high overfishing limit (OFL) of 25.6 million pounds (raised from 15.5 mp) but only marginally increasing the acceptable biological catch (ABC) from 15.1 to 15.5 mp after considering that other sources of data also available to them—namely a longstanding survey of UCB areas—showed some concerning trends. The SSC was later asked to look at a revised version of the GRSC and ultimately used that information (in combination with all other best available science) to revise the OFL back down from 25.6 mp to 18.9 mp and raise the ABC, from 15.5 to

[21] Gulf of Mexico Fishery Management Council, Meeting of the Standing, Reef Fish, and Socioeconomic SSC, March 30- 31, 2021, Agenda item II.b, available at: https://gulfcouncil.org/meetings/scientific-and-statistical-meetings/mar-apr2021/

16.3 mp. Once these new catch levels are implemented (they are open for public comment now), catch levels for red snapper will be set higher than they have ever been set. That means that the total mortality of the stock annually will be higher than scientists estimate was occurring back in the 1990s, when overfishing drove the stock to 2% of its historical biomass, kicking off the entire rebuilding story told here.

Although abundance studies provide important new information, it is imperative that scientists, managers, and others involved in the fishery management process clearly distinguish between the differences in an abundance study and the stock assessment process in order to avoid duplicating the substantial confusion and immense pressure to ignore uncertainty associated with the GRSC preliminary estimate and revise catch levels. In the case of Gulf red snapper, the new catch levels set using the GRSC, done before the study was incorporated into the stock assessment, combined with the catch overages that occurred due to a lack of calibration for the first four years of state management, significantly increase the risk that overall fishing effort will be too high, and will damage both the stock and fishery.

Ultimately, abundance studies should be incorporated into our overall understanding of a fish stock through the stock assessment—not prematurely rushed into the management advice process. The MSA and the regulations to implement the law have established clear and effective processes around how information should be integrated for management consideration. These established processes must be honored rather than rushing to get data out the door if the results could yield a favorable outcome. In addition, strong scientific integrity practices can reduce the politicization of science and promote better oversight of large, congressionally funded studies like the GRSC. These considerations are important because new abundance studies modeled after the GRSC are currently underway in other fisheries, and it is not yet clear how to best quantify and integrate these studies into sustainable catch recommendations. Future abundance studies should go through standard peer review processes to ensure the management advice qualifies as best available science and can be used in stock assessments.

Gulf red snapper provides important lessons for managers

Now that the implementation of calibrations for red snapper survey data is underway, it is important to examine what lessons managers and stakeholders can learn from this process. Based on our experience, we suggest a few:

- **Sustainable management relies on accountability.** To rebuild our fisheries, sectors must be accountable to the ACLs and accountability measures (AMs) set forth by management. After an initial failed rebuilding plan, red snapper started making progress towards rebuilding when sustainable catch limits were implemented and accountability increased—first with the shrimp bycatch reductions, then commercial sector, and then the for-hire sector. However, the private recreational sector was allowed to exceed its ACL several years during the initial implementation of state management, which led to the OFL being triggered in 2019 for the first time in a decade, and jeopardized rebuilding progress and the sacrifices made by all sectors. Sustainability is a cornerstone of recreational management, and new regulations should comply with the

requirements of the MSA, including through upholding ACLs and AMs, preventing overfishing, rebuilding stocks successfully, and conserving and restoring habitat to maintain resilient and productive ecosystems that support healthy and abundant fish stocks. We particularly emphasize this point as there was discussion during the hearing about delaying action to end overfishing and implement the rebuilding plan for the red snapper stock in the South Atlantic.

- **Fishery management should be informed by the best available scientific information.** Fisheries data is the foundation of our science-based management system. As new data systems and scientific studies are proposed or developed (such as state surveys or the GRSC), the best practice is to design these to complement and supplement existing data programs and ensure appropriate methodologies are used to integrate new data. As fishery science relies heavily on long-term datasets, abrupt replacements or dramatic shifts in datasets can increase uncertainty and put fish stocks and fishing communities at risk. Advanced planning, cooperative efforts, and transparent communication about both the opportunities and challenges posed with new data approaches is key to maintaining manager and stakeholder trust as our scientific understanding of stocks increases. Additionally, managers cannot delay action in order to wait for more favorable data. The MSA's mandate to use the best *available* science is an important backstop against delaying needed management actions. Fishery managers will always have to confront situations where the news about the health of a stock is not what people want to hear, and the requirements to act on the best information available to end overfishing and rebuild stocks are crucial for preventing near-term pressures to delay needed management action.

- **Transparency and communication are critical for creating trust in the management system.** Fishery management is complicated, and the intricacies of fishery data and management actions can be difficult to communicate and understand. A key stumbling block in recreational red snapper management continues to be the ability for scientists, statisticians and managers to communicate with stakeholders about the data and science for the fishery. Gulf red snapper management revealed failures to communicate clearly to the public at key junctures, including: failing to clearly set expectations about what stock recovery in a rebuilding plan would look like on the water for states and anglers; an unwillingness to communicate about the challenges of using multiple data sets for management; an egregious lack of transparency in publicly tracking landings data (there is still no public, transparent, and accurate tracking of private recreational red snapper landings in comparison to state specific quotas or the private recreational ACL); serious miscommunications about the appropriate scientific methodologies for including abundance study results in management; and overall, an unhelpful and combative narrative pitting state and federal scientists and managers against each other rather than highlighting the cooperation necessary to manage a public resource across large geographies, multiple jurisdictions, and many users.

- **Fairness is paramount.** Our marine fish stocks are a public resource, and the law requires that they are managed for the long-term benefit of the nation. This means that current users of

fishery resources have a responsibility to the generations that will follow to steward these resources and support healthy fish stocks and ecosystems. Fairness also means that everyone who fishes the stock now shares an equal burden in complying with science-based limits and management approaches; it also means that all sectors should have an opportunity to benefit from efforts to rebuild stocks. When one sector continues to exceed its limits, as has occurred in Gulf red snapper, it hurts the overall health of the stock and can reduce fishing opportunities for other sectors. Overfishing can lead to stock decline and localized depletions and puts fishing communities at risk. When fishermen see favoritism of one sector over another, it erodes confidence and compliance with sustainable management.

- **Plan for change**. Our ocean fisheries are ever-changing. They experience changes due to numerous factors, such as fishing effort and ecosystem impacts. And now more than ever, climate change is dramatically reshaping our ocean and the communities that rely on it. Fishery management must start incorporating more ecosystem and climate information via adaptable management approaches to ensure our ocean can support robust fishing opportunity even as our oceans change. By working together, fishermen, scientists and managers can chart a course to a sustainable fishing future no matter what changes lie ahead.

Thank you for considering our comments, and we hope to work with you in this Congress to ensure red snapper, and all U.S. fisheries, are managed sustainably, equitably, and accountably.

Sincerely,
Meredith Moore
Director, Fish Conservation Program
Ocean Conservancy