

**Statement of
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**Before the
House Committee on Natural Resources
Subcommittee on Water, Oceans, and Wildlife
Hearing on H.R. 59, H.R. 4690, and H.R. 5770**

H. R. 59 (Rep. Don Young, R-AK), To amend the Magnuson-Stevens Fishery Conservation and Management Act to provide flexibility for fishery managers and stability for fishermen, and for other purposes. Strengthening Fishing Communities and Increasing Flexibility in Fisheries Management Act.

H.R. 4690 (Rep. Jared Huffman, D-CA), To reauthorize and amend the Magnuson-Stevens Fishery Conservation and Management Act, and for other purposes. Sustaining America's Fisheries for the Future Act of 2021.

H.R. 5770 (Rep. Debbie Dingell, D-MI), To improve the management of forage fish. Forage Fish Conservation Act of 2021.

October 14, 2021

Chairman Huffman, Ranking Member Bentz, and Members of the Subcommittee, I am pleased to appear before you today to discuss improving the nation's ability to sustainably manage fisheries through greater reliance on science. My name is Sean Powers, and I am Director of the School of Marine and Environmental Science at the University of South Alabama as well as a Senior Marine Scientist at the Dauphin Island Sea Lab in Alabama. I am a fisheries ecologist with over 20 years of experiencing studying a range of fisheries species including inshore finfish (e.g., Red Drum, Speckled Sea trout, Southern Flounder) and offshore reef fish (e.g. red snapper, gray triggerfish and greater amberjack) in the Gulf of Mexico; salmon and flatfish in Alaska; and tuna in the Galapagos Islands. In addition to developing new and novel methodologies to advance my field of study, publishing the results of these studies, and training the next generation of marine scientists, I am committed to transferring science to the management and policy arenas. I feel strongly about this latter point because funding for much of my work ultimately comes from the taxpayers of this nation. I believe the work that my colleagues and I have accomplished have and will continue to improve the states and nation's ability to effectively manage marine fisheries. I have been fortunate to be called upon to serve on several panels and committees at the regional and national level (Gulf of Mexico Fisheries Management Council's Science and Statistical Committee, National Academies of Science and Engineering Panels, Alabama Forever Wild Land Trust) to provide advice in achieving the goal of sustainable management of marine fisheries. I have worked on many contentious issues over my career, one of which I am here today to discuss – management of the reef fish in the Gulf of Mexico.

Since its enactment in 1976 and subsequent reauthorizations in 1996 and 2007, the Magnuson-Stevens Fishery Conservation and Management Act (MSA) has provided the framework for improved management of marine fisheries. The result has been large improvements in the condition of many stocks that have benefited our nation. Through congressional action, the Act has evolved over the years in response to stakeholder concerns as well as technological and scientific advances with the goal of improving the conservation and economic benefits of healthy fish stocks. Opportunities to improve the management of marine fisheries remain through amendments to the Act as well as through other actions Congress can take. Increased efficiency of commercial fleets has resulted in more profitable returns for that sector. Increased participation in marine recreational fisheries has fueled continued economic development in coastal communities and provided exceptional growth opportunities for maritime and outdoor and leisure-related industries. Sustaining these benefits requires effective management that is responsive to changing socioeconomic and ecological conditions. Science can and must play a key role in developing the data streams and analyses needed to inform policy makers.

My testimony will focus on four key issues I believe are germane to the three bills discussed in this hearing: (1) the expanding the role of fisheries-independent studies to inform management; (2) increasing cooperation between federal and state partners in providing scientific information; (3) including more local management (State) of marine fisheries; and (4) the need for stability in fisheries management.

Historically, the primary mechanism where data are synthesized to inform fisheries management has been the stock assessment process. A major improvement in stock assessments has been the expanded use of fisheries-independent data. Fisheries-independent surveys (scientifically directed surveys that generate relative abundance indices as well as critical biological information on targeted and non-targeted species) can be used to inform stock assessment. Unlike fisheries-dependent (catch) data, which are currently the primary source of information for stock assessments, fisheries-independent data is not confounded by fishermen behavior, market forces, and inferences are not limited to the current hot spots of exploitation. Technological advances and cost effectiveness in ocean observing instruments, underwater cameras, hydro-acoustics, and statistical approaches have resulted in a suite of rigorous methods to measure fish abundance independent of capture (hooks and net) methods. Advancements in machine learning and artificial intelligence also offer the promise of decreased processing time and hence more timely data. The recently completed Great Red Snapper Count, an initiative funded through congressional action, as well as work my group has been conducting in Alabama coastal waters for the last decade has demonstrated how fisheries-independent data can be used to estimate absolute abundance of fish stocks. The exhaustively reviewed report found the number of Red Snapper in U.S. waters of the Gulf of Mexico was 3 times higher than the recent estimate from the stock assessment. Any new fisheries legislation should advance the shift away from catch-based stock assessments to fisheries-independent based assessments. Further, agencies should be strongly encouraged to provide greater weight to abundance estimates based on rigorously collected fisheries-independent data.

Under MSA, agencies are directed to use the “best scientific information available” (see National Standard 2). For decades, most scientific information available was collected and provided by NOAA Fisheries or by state and university researchers under cooperative agreements with the agency. Over the last decade, many States, particularly those in the Gulf of Mexico, have invested significant resources in fisheries-dependent and –independent data designed to monitor the catch and condition of their economically critical stocks off their respective coast. Most of these surveys have a rigorous, peer-reviewed scientific design as their foundation. The term “best” has been interpreted by many that a choice must be made on which data to use in developing management advice. Given the increasing number of rigorously designed data streams, a more inclusive term should be adopted. Any new legislation should encourage the use of all rigorous and accepted science in developing management advice.

A product of increased investments in fisheries data collection by Gulf States over the last decade is greater spatial resolution of stock dynamics. This enhanced resolution could support local management that is more responsive to the socioeconomic concerns of coastal communities. Provided a stock is not overfished, local control in setting harvest targets may better facilitate achieving optimum yield and thus maximizing economic benefit (National Standard 1). If a stock, managed under a stock annual biological catch limit in a regional (i.e. state level) form of management, is determined to be overfished by the regional fisheries management council, the level of local management control could depend on biological measures such as the strength of the spawner-recruit relationship. If rebuilding in states is dependent on a region-wide source of larvae because recruitment is not local and relies on greater regional connectivity, then managing the stock over its range should supersede regional (state) management. More local control could also be more effective in guarding against overfishing, which could lead to an overfished condition. Localized depletions are often evident long before regional indices will detect declining trends. Provided states have rigorous and timely fisheries-data-collection-systems decreases in recruitment (evidence for recruitment overfishing) and/or reductions in the size of fish (evidence for growth overfishing) can be detected and management action at the appropriate spatial scale can be implemented quickly through areal closures or season length adjustment.

Finally, the guiding principle of MSA and related fisheries legislation is the achievement of optimum yield. While the definition of optimum yield depends on the stakeholder group or sector questioned, an increasingly relevant concern of all sectors is stability in the fishery. Many commercial fisheries have been able to achieve both through LAPPs (Limited Access Privilege Programs). More predictable and stable season lengths and bag limits would allow businesses dependent on recreational fisheries to achieve similar success. Stability in all sectors of a fishery should be a component of achieving optimum yield.