

SUPPORTING THE HEALTH OF AQUATIC SYSTEMS
THROUGH RESEARCH KNOWLEDGE AND ENHANCED
DIALOGUE ACT

JANUARY 30, 2024.—Committed to the Committee of the Whole House on the State
of the Union and ordered to be printed

Mr. WESTERMAN, from the Committee on Natural Resources,
submitted the following

R E P O R T

together with

ADDITIONAL VIEWS

[To accompany H.R. 4051]

[Including cost estimate of the Congressional Budget Office]

The Committee on Natural Resources, to whom was referred the bill (H.R. 4051) to direct the Secretary of Commerce to establish a task force regarding shark depredation, and for other purposes, having considered the same, reports favorably thereon with an amendment and recommends that the bill as amended do pass.

The amendment is as follows:

Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE.

This Act may be cited as the “Supporting the Health of Aquatic systems through Research Knowledge and Enhanced Dialogue Act” or the “SHARKED Act”.

SEC. 2. SHARK DEPREDAATION TASK FORCE AND RESEARCH PROJECTS.

(a) SHARK DEPREDAATION TASK FORCE.—

(1) IN GENERAL.—The Secretary of Commerce shall establish a task force (referred to in this subsection as the “task force”) to identify and address critical needs with respect to shark depredation.

(2) MEMBERSHIP.—The Secretary of Commerce shall appoint individuals to the task force, including—

(A) 1 representative from—

(i) each Regional Fishery Management Council established under section 302(a)(1) of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1852(a)(1));

- (ii) each Marine Fisheries Commission, as such term is defined in section 3 of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1802);
 - (iii) the fish and wildlife agency of a coastal State from each Regional Fishery Management Council established under section 302(a)(1) of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1852(a)(1)); and
 - (iv) the National Marine Fisheries Service;
- (B) an individual with expertise in the management of highly migratory species;
- (C) a researcher with expertise in shark management and behavior; and
- (D) a researcher with expertise in shark ecology.
- (3) RESPONSIBILITIES.—The task force shall—
- (A) develop ways to improve coordination and communication across the fisheries management community and shark research community to address shark depredation;
 - (B) identify research priorities and funding opportunities for such priorities, including—
 - (i) identifying shark species involved in interactions;
 - (ii) shark stock assessments;
 - (iii) how sharks become habituated to humans and thus lead to more interactions between sharks and humans;
 - (iv) how angler behavior and fishery regulatory frameworks may influence shark interactions;
 - (v) techniques and strategies to reduce harmful interactions between sharks and humans, including the development and use of non-lethal deterrents;
 - (vi) the role of healthy shark populations in the ocean food web; and
 - (vii) climate change impacts on shifting shark populations, prey, and shark behavior;
 - (C) develop recommended management strategies to address shark depredation; and
 - (D) coordinate the development and distribution of educational materials to help the fishing community minimize shark interactions including through changed angler behavior and expectations.
- (4) REPORT.—Not later than 2 years after the date of the enactment of this section, and every 2 years thereafter until the termination of the task force in accordance with paragraph (5), the task force shall submit to Congress a report regarding the findings of the task force.
- (5) SUNSET.—The task force shall terminate not later than 7 years after the date on which the Secretary of Commerce establishes the task force.
- (6) COASTAL STATE DEFINED.—In this subsection, the term “coastal State”—
- (A) means a State of the United States in, or bordering on, the Atlantic Ocean, Pacific Ocean, Arctic Ocean, Gulf of Mexico, or Long Island Sound; and
 - (B) includes Puerto Rico, the Virgin Islands of the United States, Guam, the Commonwealth of the Northern Mariana Islands, and American Samoa.
- (b) SHARK DEPREDEATION RESEARCH PROJECTS.—Section 318(c) of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1867(c)) is amended by adding at the end the following:
- “(6) Projects to better understand shark depredation, including identifying what causes increases in shark depredation and determining how to best address shark depredation.”.
- (c) EFFECT.—Nothing in this Act shall be construed to affect the authority and responsibility of the Secretary of Commerce in carrying out the Endangered Species Act of 1973 or the Magnuson-Stevens Fishery Conservation and Management Act.

PURPOSE OF THE LEGISLATION

The purpose of H.R. 4051 is to direct the Secretary of Commerce to establish a task force regarding shark depredation, and for other purposes.

BACKGROUND AND NEED FOR LEGISLATION

Concerns over shark depredation, which occurs when a shark eats or preys upon fish that are caught on fishing gear, are increasingly common for fishermen, regardless of their sector, the species

they target, and where they fish. Shark interactions have been reported in private recreational, for-hire, and commercial hook and line fisheries in both the Gulf of Mexico and South Atlantic. From fishermen in the Florida Keys and throughout the Gulf of Mexico whose prized snapper or grouper catch was eaten by a shark to charter boat captains in North Carolina's Outer Banks offshore fishing, these interactions can be frustrating for anglers as they result in loss of catch, damaged gear, and degraded fishing experiences, and may also impact the post-release survival of target fish.

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. The National Oceanic and Atmospheric Administration (NOAA) works with state, federal, and international partners in various domestic and international venues to improve the management of shark stocks. 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.

While the number of reports of depredation have increased, the underlying cause of the increase is uncertain—it could be due to an increase in the number of sharks, as stocks rebuild; a learned behavior by sharks as they recognize motors, fishing techniques, or shark feeding locations as a source of food. The bill would require the Secretary of Commerce to establish a task force to address shark depredation. The task force membership would include representatives from Regional Fishery Management Councils, the Marine Fisheries Commissions, the state fish and wildlife agencies from the states within the Regional Fishery Management Councils, NOAA, shark experts from the Fisheries Service, and non-federal experts. The task force would be responsible for improving coordination and communication across the fisheries management community on shark depredation, identifying research priorities and funding opportunities.

COMMITTEE ACTION

H.R. 4051 was introduced on June 12, 2023, by Rep. Robert J. Wittman (R-VA). The bill was referred to the Committee on Natural Resources, and within the Committee to the Subcommittee on Water, Wildlife and Fisheries. On July 27, 2023, the Subcommittee on Water, Wildlife and Fisheries held a hearing on the bill. On September 20, 2023, the Committee on Natural Resources met to consider the bill. The Subcommittee on Water, Wildlife and Fisheries was discharged from further consideration of H.R. 4051 by unanimous consent. Rep. Wittman (R-VA) offered an amendment in the nature of a substitute designated Wittman 083.

Rep. Jared Huffman (D-CA) offered an amendment to the amendment in the nature of a substitute designated Huffman #1 Revised. The amendment was adopted by unanimous consent. The amendment in the nature of a substitute, as amended, was adopted by unanimous consent. The bill, as amended, was ordered favorably reported to the House of Representatives by unanimous consent.

HEARINGS

For the purposes of clause 3(c)(6) of House rule XIII, the following hearing was used to develop or consider this measure: hearing by the Subcommittee on Water, Wildlife and Fisheries held on July 27, 2023.

SECTION-BY-SECTION ANALYSIS

Section 1. Short title

Section 1 establishes the short title of the bill as the “Supporting the Health of Aquatic systems through Research Knowledge and Enhanced Dialogue Act” or “SHARKED Act.”

Section 2. Shark depredation task force and research projects

Section 2 establishes a task force to identify and address critical needs with respect to shark depredation. As amended, the bill includes the ability for more engagement with the scientific shark research community. Additionally, it clarifies that the findings and work done by the task force do not impact the Secretary of Commerce’s responsibilities under the Endangered Species Act or the Magnuson-Stevens Act. The task force must submit reports to Congress every two years regarding its work and findings.

COMMITTEE OVERSIGHT FINDINGS AND RECOMMENDATIONS

Regarding clause 2(b)(1) of rule X and clause 3(c)(1) of rule XIII of the Rules of the House of Representatives, the Committee on Natural Resources’ oversight findings and recommendations are reflected in the body of this report.

COMPLIANCE WITH HOUSE RULE XIII AND
CONGRESSIONAL BUDGET ACT

1. *Cost of Legislation and the Congressional Budget Act.* With respect to the requirements of clause 3(c)(2) and (3) of rule XIII of the Rules of the House of Representatives and sections 308(a) and 402 of the Congressional Budget Act of 1974, the Committee has received the following estimate for the bill from the Director of the Congressional Budget Office:

H.R. 4051, SHARKED Act			
As ordered reported by the House Committee on Natural Resources on September 20, 2023			
By Fiscal Year, Millions of Dollars	2024	2024-2028	2024-2033
Direct Spending (Outlays)	0	0	0
Revenues	0	0	0
Increase or Decrease (-) in the Deficit	0	0	0
Spending Subject to Appropriation (Outlays)	*	2	not estimated
Increases <i>net direct spending</i> in any of the four consecutive 10-year periods beginning in 2034?	No	Statutory pay-as-you-go procedures apply?	No
		Mandate Effects	
Increases <i>on-budget deficits</i> in any of the four consecutive 10-year periods beginning in 2034?	No	Contains intergovernmental mandate?	No
		Contains private-sector mandate?	No
* = between zero and \$500,000.			

H.R. 4051 would require the National Oceanic and Atmospheric Administration (NOAA) to establish a task force to identify strategies to minimize shark depredation, which is when a shark eats or damages a hooked fish before an angler can reel it in. The task force would include NOAA, the Regional Fishery Management Councils, the National Marine Fishery Commissions, state fish and wildlife agencies, and experts in shark behavior and ecology, and would expire seven years after being established.

Under the bill, the task force would coordinate research to identify species most often involved in such interactions and the migratory patterns and behavior of those species. It also would develop recommendations to mitigate the toll of shark depredation and communication methods to distribute the information to fishing communities. The task force would need to submit biennial reports to the Congress on its findings.

For this estimate, CBO assumes that H.R. 4051 will be enacted near the end of calendar year 2023 and that the task force would be established during fiscal year 2024. Using information from NOAA, CBO estimates the costs for travel for the task force and for staff to develop reports would be less than \$500,000 in each year from 2024 through 2030. On that basis, CBO estimates that implementing H.R. 4051 would cost \$2 million over the 2024–2028 period; any spending would be subject to the availability of appropriated funds. In 2021, NOAA allocated about \$500,000 for research projects related to shark depredation, the most recent year for which CBO can determine that such an allocation was made.

The CBO staff contact for this estimate is Aurora Swanson. The estimate was reviewed by H. Samuel Papenfuss, Deputy Director of Budget Analysis.

PHILLIP L. SWAGEL,
Director, Congressional Budget Office.

2. *General Performance Goals and Objectives.* As required by clause 3(c)(4) of rule XIII, the general performance goal or objective of this bill is to direct the Secretary of Commerce to establish a task force regarding shark depredation, and for other purposes.

EARMARK STATEMENT

This bill does not contain any Congressional earmarks, limited tax benefits, or limited tariff benefits as defined under clause 9(e), 9(f), and 9(g) of rule XXI of the Rules of the House of Representatives.

UNFUNDED MANDATES REFORM ACT STATEMENT

According to the Congressional Budget Office, H.R. 4051 contains no unfunded mandates as defined in the Unfunded Mandates Reform Act.

EXISTING PROGRAMS

Directed Rule Making. This bill does not contain any directed rule makings.

Duplication of Existing Programs. This bill does not establish or reauthorize a program of the federal government known to be duplicative of another program. Such program was not included in any report from the Government Accountability Office to Congress pursuant to section 21 of Public Law 111–139 or identified in the most recent Catalog of Federal Domestic Assistance published pursuant to the Federal Program Information Act (Public Law 95–220, as amended by Public Law 98–169) as relating to other programs.

APPLICABILITY TO LEGISLATIVE BRANCH

The Committee finds that the legislation does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act.

PREEMPTION OF STATE, LOCAL OR TRIBAL LAW

Any preemptive effect of this bill over state, local, or tribal law is intended to be consistent with the bill's purposes and text and the Supremacy Clause of Article VI of the U.S. Constitution.

CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3(e) of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (new matter is printed in italics and existing law in which no change is proposed is shown in roman):

**MAGNUSON-STEVENSON FISHERY CONSERVATION AND
MANAGEMENT ACT**

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**TITLE III—NATIONAL FISHERY MANAGEMENT
PROGRAM**

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SEC. 318. COOPERATIVE RESEARCH AND MANAGEMENT PROGRAM.

(a) **IN GENERAL.**—The Secretary of Commerce, in consultation with the Councils, shall establish a cooperative research and management program to address needs identified under this Act and under any other marine resource laws enforced by the Secretary. The program shall be implemented on a regional basis and shall be developed and conducted through partnerships among Federal, State, and Tribal managers and scientists (including interstate fishery commissions), fishing industry participants (including use of commercial charter or recreational vessels for gathering data), and educational institutions.

(b) **ELIGIBLE PROJECTS.**—The Secretary shall make funds available under the program for the support of projects to address critical needs identified by the Councils in consultation with the Secretary. The program shall promote and encourage efforts to utilize sources of data maintained by other Federal agencies, State agencies, or academia for use in such projects.

(c) **FUNDING.**—In making funds available the Secretary shall award funding on a competitive basis and based on regional fishery management needs, select programs that form part of a coherent program of research focused on solving priority issues identified by the Councils, and shall give priority to the following projects:

(1) Projects to collect data to improve, supplement, or enhance stock assessments, including the use of fishing vessels or acoustic or other marine technology.

(2) Projects to assess the amount and type of bycatch or post-release mortality occurring in a fishery.

(3) Conservation engineering projects designed to reduce bycatch, including avoidance of post-release mortality, reduction of bycatch in high seas fisheries, and transfer of such fishing technologies to other nations.

(4) Projects for the identification of habitat areas of particular concern and for habitat conservation.

(5) Projects designed to collect and compile economic and social data.

(6) *Projects to better understand shark depredation, including identifying what causes increases in shark depredation and determining how to best address shark depredation.*

(d) **EXPERIMENTAL PERMITTING PROCESS.**—Not later than 180 days after the date of enactment of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, the Secretary, in consultation with the Councils, shall promulgate regulations that create an expedited, uniform, and regionally-based process to promote issuance, where practicable, of experimental fishing permits.

(e) **GUIDELINES.**—The Secretary, in consultation with the Councils, shall establish guidelines to ensure that participation in a research project funded under this section does not result in loss of a participant's catch history or unexpended days-at-sea as part of a limited entry system.

(f) **EXEMPTED PROJECTS.**—The procedures of this section shall not apply to research funded by quota set-asides in a fishery.

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ADDITIONAL VIEWS

H.R. 4051 would direct the Secretary of Commerce to establish a task force to identify and address needs regarding shark depredation and would amend the Magnuson-Stevens Fishery Conservation and Management Act to make shark depredation research projects eligible for cooperative research and management programs.

Sharks play a central role in shaping marine ecosystems, but shark populations have significantly declined in recent decades, upending marine ecosystem structures and functions.¹ Shark depredation refers to the partial or complete consumption by a shark of an animal caught by fishing gear before it can be landed (reeled in). Fish caught by recreational or commercial fishermen are easy targets for sharks, who opportunistically feed on injured or unhealthy fish.²

Human behavior, season, region, and temperature influence the likelihood of shark depredation, and precautionary measures are proven to reduce risk to anglers and sharks.³ When fishers use magnetic, electronic, and acoustic deterrents, the proportion of fish depredated by sharks is reduced by 65%, and the time it takes for a shark to depredate a fish is increased and can be further reduced by avoiding hotspots and moving spots if sharks arrive.⁴ Simple changes to angler behavior like using deterrents, limiting the amount of time spent fishing in a given location, avoiding heavily fished or depredation hotspots, using jigs and lures instead of bait, and reducing the amount of time a caught fish remains in the water can significantly reduce the likelihood of depredation occurrence.

NOAA authored a report to Congress on dolphin and shark depredation in the Gulf of Mexico and the South Atlantic Region in response to a request in the Joint Explanatory Statement accompanying the Consolidated Appropriations Act, 2021 (Public Law 116–260).⁵ The report highlights the negative impacts of depredation on both anglers and sharks, and acknowledges significant gaps in data and understanding around shark ecology, which are central to understanding and reducing depredation behavior. Independent researchers also cite a “lack of resources and effective methods for

¹Ferretti, Francesco, Boris Worm, Gregory L. Britten, Michael R. Heithaus, and Heike K. Lotze. “Patterns and ecosystem consequences of shark declines in the ocean.” *Ecology letters* 13, no. 8 (2010): 1055–1071. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1461-0248.2010.01489.x>.

²Mitchell, J. D., D.L. McLean, S.P. Collin, and T.J. Langlois. “Shark depredation in commercial and recreational fisheries.” *Reviews in Fish Biology and Fisheries* 28 (2018): 715–748. <https://link.springer.com/article/10.1007/s11160-018-9528-z>.

³*Ibid.*

⁴Government of Western Australia, Department of Primary Industries and Regional Development. Fisheries science update—April 2022 Shark depredation. https://www.fish.wa.gov.au/Documents/fisheries_research_updates/fisheries_science_update_shark_depredation.pdf.

⁵Interactions Between Bottlenose Dolphins and Sharks and Commercial, For-Hire, and Private Recreational Fisheries in the Gulf Of Mexico and South Atlantic. https://media.fisheries.noaa.gov/2022-08/NMFS-Assessment-Fishing-Interference-RTC-08_29_22.pdf.

data collection, such as logbook reporting or trained fisheries observers” to address depredation data gaps in many fisheries.⁶

Depredation is a complex issue, and mitigation measures must be considered in the context of recovering shark populations and protecting the marine ecosystem. Increasing rates of depredation can result in higher bycatch, reduced operational efficiency of fisheries, and increasing negative perceptions of sharks or retaliatory shark killings by anglers, each of which poses significant threats to the economic viability of fisheries and the potential recovery of shark species.⁷

A review published this year by Mitchell *et al.* titled “Shark depredation: future directions in research and management”⁸ and NOAA’s report to Congress on shark depredation in the Gulf of Mexico and South Atlantic Region⁹ address many of the topics outlined in this bill and provide suggestions for research, management, and stakeholder engagement based on gaps in current data and proven strategies for reducing shark depredation.

Any actions on shark depredation should be based on understanding shark ecology and the ways angler behavior or deterrents may be used to reduce depredation, rather than “managing” sharks. The use of the term “management” in H.R. 4051, as defined in Magnuson-Stevens, can allow for the take of sharks.¹⁰ Instead, any strategies to reduce depredation should focus on non-lethal methods that reduce harm to sharks and the marine ecosystem.

RAÚL M. GRIJALVA,

Ranking Member, House Committee on Natural Resources.



⁶Mitchell, J. D., D. L. McLean, S. P. Collin, and T. J. Langlois. “Shark depredation in commercial and recreational fisheries.” *Reviews in Fish Biology and Fisheries* 28 (2018): 715–748. <https://link.springer.com/article/10.1007/s11160-018-9528-z>.

⁷Mitchell, J.D., Drymon, J.M., Vardon, J., Coulson, P.G., Simpfendorfer, C.A., Scyphers, S.B., Kajiura, S.M., Hoel, K., Williams, S., Ryan, K.L. and Barnett, A., 2023. “Shark depredation: future directions in research and management.” *Reviews in fish biology and fisheries*, 33(2), pp. 475–499. <https://link.springer.com/article/10.1007/s11160-022-09732-9>.

⁸Ibid.

⁹Interactions Between Bottlenose Dolphins and Sharks and Commercial, For-Hire, and Private Recreational Fisheries in the Gulf Of Mexico and South Atlantic. https://media.fisheries.noaa.gov/2022-08/NMFS-Assessment-Fishing-Interference-RTC-08_29_22.pdf.

¹⁰16 U.S.C. 1802 MSA § 3, <https://media.fisheries.noaa.gov/dam-migration/msa-amended-2007.pdf>.