

Ms. CLARK of Massachusetts. Mr. Speaker, as we commemorate D-Day and express our heartfelt gratitude to veterans across our great Nation, it is also an appropriate time to think of civilians and security threats at home.

June is Gun Violence Awareness Month and a time to reflect on the lives we have lost to gun violence and reinvigorate our fight to end senseless suffering.

Just this past week, 52 people were shot in Chicago, resulting in 10 deaths, and 12 lives were taken in Virginia Beach. The shooting in Virginia Beach was the 150th mass shooting in 2019. Just think about that and the lives lost. Americans like Ryan Keith Cox, a hero who helped his coworkers to safety, Mary Louise Gayle, a devoted mother and grandmother known for her holiday gingerbread houses, Richard Nettleton, a veteran and a die-hard Red Sox fan, Katherine, Christopher, Bert, Laquita, Bobby, Missy, Joshua, Alexander, and Tara.

We are not powerless. 100 days ago House Democrats passed two gun safety reform bills supported by over 90 percent of Americans. These bills can save lives. We can bring sanctuary and safety back to our communities.

We ask our Senate colleagues to do their job and bring these life-saving measures up for a vote.

#### ANNOUNCEMENT BY THE SPEAKER PRO TEMPORE

The SPEAKER pro tempore (Mr. DESAULNIER). Pursuant to clause 8 of rule XX, the Chair will postpone further proceedings today on motions to suspend the rules on which a recorded vote or the yeas and nays are ordered, or votes objected to under clause 6 of rule XX.

The House will resume proceedings on postponed questions at a later time.

#### COASTAL AND OCEAN ACIDIFICATION STRESSORS AND THREATS RESEARCH ACT OF 2019

Ms. JOHNSON of Texas. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 1237) to amend the Federal Ocean Acidification Research and Monitoring Act of 2009 to establish an Ocean Acidification Advisory Board, to expand and improve the research on Ocean Acidification and Coastal Acidification, to establish and maintain a data archive system for Ocean Acidification data and Coastal Acidification data, and for other purposes, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 1237

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

#### SECTION 1. SHORT TITLE.

This Act may be cited as the “Coastal and Ocean Acidification Stressors and Threats Research Act of 2019” or the “COAST Research Act of 2019”.

#### SEC. 2. PURPOSES.

(a) *IN GENERAL.*—Section 12402(a) of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3701(a)) is amended—

(1) in paragraph (1)—

(A) in the matter preceding subparagraph (A), by striking “development and coordination” and inserting “coordination and implementation”;

(B) in subparagraph (A), by striking “acidification on marine organisms” and inserting “acidification and coastal acidification on marine organisms”;

(C) in subparagraph (B), by striking “establish” and all that follows through the semicolon and inserting “maintain and advise an interagency research, monitoring, and public outreach program on ocean acidification and coastal acidification”;

(2) in paragraph (2), by striking “establishment” and inserting “maintenance”;

(3) in paragraph (3), by inserting “and coastal acidification” after “ocean acidification”;

(4) in paragraph (4), by inserting “and coastal acidification that take into account other environmental and anthropogenic stressors” after “ocean acidification”.

(b) *TECHNICAL AND CONFORMING AMENDMENT.*—Section 12402 of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3701(a)) is amended by striking “(a) PURPOSES.—”.

#### SEC. 3. DEFINITIONS.

Section 12403 of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3702) is amended—

(1) in paragraph (1), by striking “of the Earth’s oceans” and all that follows before the period at the end and inserting “and changes in the water chemistry of the Earth’s oceans, coastal estuaries, and waterways caused by carbon dioxide from the atmosphere and the breakdown of organic matter”;

(2) in paragraph (3), by striking “Joint Subcommittee on Ocean Science and Technology of the National Science and Technology Council” and inserting “National Science and Technology Council Subcommittee on Ocean Science and Technology”;

(3) by redesignating paragraphs (1), (2), and (3) as paragraphs (2), (3), and (4), respectively;

(4) by inserting before paragraph (2), as so redesignated, the following new paragraph:

“(1) *COASTAL ACIDIFICATION.*—The term ‘coastal acidification’ means the combined decrease in pH and changes in the water chemistry of coastal oceans, estuaries, and other bodies of water from chemical inputs (including carbon dioxide from the atmosphere), freshwater inputs, and excess nutrient run-off from land and coastal atmospheric pollution that result in processes that release carbon dioxide, acidic nitrogen, and sulfur compounds as byproducts which end up in coastal waters.”;

(5) by adding at the end the following new paragraph:

“(5) *STATE.*—The term ‘State’ means each State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, the Virgin Islands of the United States, and any other territory or possession of the United States.”.

#### SEC. 4. INTERAGENCY WORKING GROUP.

Section 12404 of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3703) is amended—

(1) in the heading, by striking “SUBCOMMITTEE” and inserting “WORKING GROUP”;

(2) in subsection (a)—

(A) in paragraph (1), by striking “Joint Subcommittee on Ocean Science and Technology of the National Science and Technology Council shall coordinate Federal activities on ocean acidification and” and insert “Subcommittee shall”;

(B) in paragraph (2), by striking “Wildlife Service,” and inserting “Wildlife Service, the Bureau of Ocean Energy Management, the Environmental Protection Agency, the Department of Agriculture, the Department of State, the Department of Energy, the Department of the Navy, the National Park Service, the Bureau of Indian Affairs, the National Institute of Standards and Technology, the Smithsonian Institution,”; and

(C) in paragraph (3), in the heading, by striking “CHAIRMAN” and inserting “CHAIR”;

(3) in subsection (b)—

(A) in paragraph (1), by inserting “, including the efforts of the National Oceanic and Atmospheric Administration to facilitate such implementation” after “of the plan”;

(B) in paragraph (2)—

(i) in subparagraph (A), by inserting “and coastal acidification” after “ocean acidification”;

(ii) in subparagraph (B), by inserting “and coastal acidification” after “ocean acidification”;

(C) in paragraph (4), by striking “; and” and inserting a semicolon;

(D) in paragraph (5)—

(i) by striking “developed” and inserting “and coastal acidification developed”;

(ii) by striking the period at the end and inserting “and coastal acidification; and”;

(E) by adding at the end the following new paragraph:

“(6) ensure that each of the Federal agencies represented on the interagency working group—  
“(A) participates in the Ocean Acidification Information Exchange established under paragraph (5); and

“(B) delivers data and information to support the data archive system established under section 12406(d).”;

(4) in subsection (c), in paragraph (2)—

(A) by inserting “, and to the Office of Management and Budget,” after “House of Representatives”;

(B) in subparagraph (B), by striking “the interagency research” and inserting “interagency strategic research”;

(5) by redesignating subsection (c) as subsection (d); and

(6) by inserting after subsection (b) the following:

“(c) *ADVISORY BOARD.*—

“(1) *ESTABLISHMENT.*—The Chair of the Subcommittee shall establish an Ocean Acidification Advisory Board.

“(2) *DUTIES.*—The Advisory Board shall—

“(A) not later than 180 days before the Subcommittee submits the most recent report under subsection (d)(2)—

“(i) review such report;

“(ii) submit an analysis of such report to the Subcommittee for consideration in the final report submitted under subsection (d)(2); and

“(iii) concurrently with the Subcommittee’s final submission of the report under subsection (d)(2), the Advisory Board shall submit a copy of the analysis provided to the Subcommittee to the Committee on Commerce, Science, and Transportation of the Senate, the Committee on Science, Space, and Technology of the House of Representatives, and the Committee on Natural Resources of the House of Representatives;

“(B) not later than 180 days before the Subcommittee submits the most recent strategic research plan under subsection (d)(3) to Congress—

“(i) review such plan;

“(ii) submit an analysis of such plan and the implementation thereof to the Subcommittee for consideration in the final strategic research plan submitted under subsection (d)(3); and

“(iii) concurrently with the Subcommittee’s final submission of the strategic research plan under subsection (d)(3), the Advisory Board shall submit a copy of the analysis provided to the Subcommittee to the Committee on Commerce, Science, and Transportation of the Senate, the Committee on Science, Space, and Technology of the House of Representatives, and the

Committee on Natural Resources of the House of Representatives;

“(C) provide ongoing advice to the Subcommittee and the interagency working group on matters related to Federal activities on ocean acidification and coastal acidification;

“(D) advise the Subcommittee and the interagency working group on—

“(i) efforts to coordinate research and monitoring activities related to ocean acidification and coastal acidification; and

“(ii) the best practices for the standards developed for data archiving under section 12406(e);

“(E) publish in the Federal Register a charter;

“(F) provide the Library of Congress with—

“(i) the charter described in subparagraph (E);

“(ii) any schedules and minutes for meetings of the Advisory Board;

“(iii) any documents that are approved by the Advisory Board; and

“(iv) any reports and analysis prepared by the Advisory Board; and

“(G) establish a publicly accessible web page on the website of the National Oceanic and Atmospheric Administration, that contains the information described in clauses (i) through (iv) of subparagraph (F).

“(3) MEMBERSHIP.—The Advisory Board shall consist of 24 members as follows:

“(A) 2 representatives of the shellfish and crab industry.

“(B) 1 representative of the finfish industry.

“(C) 1 representative of seafood processors.

“(D) 3 representatives from academia, including both natural and social sciences.

“(E) 1 representative of recreational fishing.

“(F) 1 representative of relevant nongovernmental organizations.

“(G) 6 representatives from relevant State, local, and Tribal governments.

“(H) 1 representative from the Alaska Ocean Acidification Network.

“(I) 1 representative from the California Current Acidification Network.

“(J) 1 representative from the Northeast Coastal Acidification Network.

“(K) 1 representative from the Southeast Coastal Acidification Network.

“(L) 1 representative from the Gulf of Mexico Coastal Acidification Network.

“(M) 1 representative from the Mid-Atlantic Coastal Acidification Network.

“(N) 1 representative from the Pacific Islands Ocean Observing System or similar entity representing the island territories and possessions of the United States in the Pacific Ocean, and the State of Hawaii.

“(O) 1 representative from the Caribbean Regional Association for Coastal Ocean Observing or a similar entity representing Puerto Rico and the U.S. Virgin Islands.

“(P) 1 representative from the National Oceanic and Atmospheric Administration shall serve as an ex-officio member of the Advisory Board without a vote.

“(4) APPOINTMENT OF MEMBERS.—The Chair of the Subcommittee shall—

“(A) appoint members to the Advisory Board (taking into account the geographical interests of each individual to be appointed as a member of the Advisory Board to ensure that an appropriate balance of geographical interests are represented by the members of the Advisory Board) who—

“(i) represent the interest group for which each seat is designated;

“(ii) demonstrate expertise on ocean acidification or coastal acidification and its scientific, economic, industry, cultural, and community impacts; and

“(iii) have a record of distinguished service with respect to ocean acidification or coastal acidification, and such impacts;

“(B) give consideration to nominations and recommendations from the members of the interagency working group and the public for such appointments; and

“(C) ensure that an appropriate balance of scientific, industry, and geographical interests are represented by the members of the Advisory Board.

“(5) TERM OF MEMBERSHIP.—Each member of the Advisory Board—

“(A) shall be appointed for a 5-year term; and

“(B) may be appointed to more than one term.

“(6) CHAIR.—The Chair of the Subcommittee shall appoint one member of the Advisory Board to serve as the Chair of the Advisory Board.

“(7) MEETINGS.—Not less than once each calendar year, the Advisory Board shall meet at such times and places as may be designated by the Chair of the Advisory Board, in consultation with the Chair of the Subcommittee and the Chair of the interagency working group.

“(8) BRIEFING.—The Chair of the Advisory Board shall brief the Subcommittee and the interagency working group on the progress of the Advisory Board as necessary.

“(9) FEDERAL ADVISORY COMMITTEE ACT.—Section 14 of the Federal Advisory Committee Act shall not apply to the Advisory Board.”.

#### SEC. 5. STRATEGIC RESEARCH PLAN.

Section 12405 of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3704) is amended—

(1) in subsection (a)—

(A) by striking “acidification” each place it appears and inserting “acidification and coastal acidification”;

(B) in the first sentence—

(i) by inserting “, and not later than every 5 years thereafter” after “the date of enactment of this Act”;

(ii) by inserting “address the socioeconomic impacts of ocean acidification and coastal acidification and to” after “mitigation strategies to”;

(iii) by striking “marine ecosystems” each place it appears and inserting “ecosystems”;

(C) in the second sentence, by inserting “and recommendations made by the Advisory Board in the review of the plan required under section 12404(c)(2)(B)(i)” after “subsection (d)”;

(2) in subsection (b)—

(A) in paragraph (1), by inserting “and social sciences” after “among the ocean sciences”;

(B) in paragraph (2)—

(i) in subparagraph (A), by striking “impacts” and inserting “impacts, including trends of changes in ocean chemistry,”;

(ii) in subparagraph (B)—

(I) by striking “improve the ability to assess the” and inserting “assess the short-term and long-term”;

(II) by striking “; and” at the end and inserting a semicolon;

(iii) by amending subparagraph (C) to read as follows:

“(C) provide information for the—

“(i) development of adaptation and mitigation strategies to address the socioeconomic impacts of ocean acidification and coastal acidification;

“(ii) conservation of marine organisms and ecosystems; and

“(iii) assessment of the effectiveness of such adaptation and mitigation strategies; and”;

(iv) by adding at the end the following new subparagraph:

“(D) improve research on—

“(i) ocean acidification and coastal acidification;

“(ii) the interactions between and effects of multiple combined stressors including changes in water chemistry, changes in sediment delivery, hypoxia, and harmful algal blooms, on ocean acidification and coastal acidification; and

“(iii) the effect of environmental stressors on marine resources and ecosystems”;

(C) in paragraph (3)—

(i) in subparagraph (F), by striking “database development” and inserting “data management”;

(ii) in subparagraph (H) by striking “and” at the end; and

(iii) by adding at the end the following new subparagraphs:

“(J) assessment of adaptation and mitigation strategies; and

“(K) education and outreach activities”;

(D) in paragraph (4), by striking “set forth” and inserting “ensure an appropriate balance of contribution in establishing”;

(E) in paragraph (5), by striking “reports” and inserting “the best available peer-reviewed scientific reports”;

(F) in paragraph (6)—

(i) by inserting “and coastal acidification” after “ocean acidification”;

(ii) by striking “of the United States” and inserting “within the United States”;

(G) in paragraph (7), by striking “outline budget requirements” and inserting “estimate costs associated for full implementation of each element of the plan by fiscal year”;

(H) in paragraph (8)—

(i) by inserting “and coastal acidification” after “ocean acidification” each place it appears;

(ii) by striking “its” and inserting “their”;

(iii) by striking “; and” at the end and inserting a semicolon;

(I) in paragraph (9), by striking the period at the end and inserting “; and”;

(J) by adding at the end the following new paragraph:

“(10) describe monitoring needs necessary to support potentially affected industry members, coastal stakeholders, fishery management councils and commissions, non-Federal resource managers, and scientific experts on decision-making and adaptation related to ocean acidification and coastal acidification.”;

(3) in subsection (c)—

(A) in paragraph (1)(C), by striking “surface”;

(B) in paragraph (2), by inserting “and coastal acidification” after “ocean acidification” each place it appears;

(C) in paragraph (3)—

(i) by striking “input, and” and inserting “inputs,”;

(ii) by inserting “, marine food webs,” after “marine ecosystems”;

(iii) by inserting “, and modeling that supports fisheries management” after “marine organisms”;

(D) in paragraph (5), by inserting “and coastal acidification” after “ocean acidification”;

(E) by adding at the end the following new paragraph:

“(6) Research to understand related and cumulative stressors and other biogeochemical processes occurring in conjunction with ocean acidification and coastal acidification.”; and

(4) by striking subsection (e) and inserting the following:

“(e) ADVISORY BOARD EVALUATION.—Not later than 180 days before a plan is submitted to Congress, the Subcommittee shall provide the Advisory Board established under section 12404(c) a copy of the plan for purposes of review under paragraph (2)(B)(i) of such section.

“(f) PUBLICATION AND PUBLIC COMMENT.—Not later than 90 days before the strategic research plan, or any revision thereof, is submitted to Congress, the Subcommittee shall publish the plan in the Federal Register and provide an opportunity for submission of public comments for a period of not less than 60 days.”.

#### SEC. 6. NOAA OCEAN ACIDIFICATION ACTIVITIES.

Section 12406 of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3705) is amended—

(1) in subsection (a)—

(A) in the matter preceding paragraph (1), by inserting “coordination,” after “research, monitoring,”;

(B) in paragraph (1)—

(i) in subparagraph (B)—

(I) by inserting “including the Integrated Ocean Observing System and the ocean observing assets of other Federal and State agencies,” after “ocean observing assets,”; and

(II) by inserting “and agency and department missions, prioritizing the location of monitoring instruments, assets, and projects to maximize the efficiency of resources and to optimize understanding of socioeconomic impacts and ecosystem health” after “research program”;

(ii) in subparagraph (C)—

(I) by striking “adaptation” and inserting “adaptation and mitigation”; and

(II) by inserting “and supporting socioeconomically vulnerable communities and industries” after “marine ecosystems”;

(iii) in subparagraph (E), by striking “its impacts” and inserting “their respective impacts”;

(iv) in subparagraph (F), by striking “monitoring and impacts research” and inserting “research, monitoring, and adaptation and mitigation strategies”; and

(v) by adding at the end the following new subparagraph:

“(G) research to improve understanding of the effect of—

“(i) other environmental stressors on ocean acidification and coastal acidification;

“(ii) multiple environmental stressors on living marine resources and coastal ecosystems; and

“(iii) adaptation and mitigation strategies to address the socioeconomic impacts of ocean acidification and coastal acidification.”;

(C) in paragraph (2), by striking “critical research projects that explore” and inserting “critical research and education projects that explore and communicate”; and

(D) in paragraphs (1) and (2), by striking “acidification” each place it appears and inserting “acidification and coastal acidification”; and

(2) by adding at the end the following new subsections:

“(c) **RELATIONSHIP TO INTERAGENCY WORKING GROUP.**—The National Oceanic and Atmospheric Administration shall serve as the lead Federal agency responsible for coordinating the Federal response to ocean acidification and coastal acidification, by—

“(1) leading the interagency working group in implementing the strategic research plan under section 12405;

“(2) coordinating monitoring and research efforts among Federal agencies in cooperation with State, local, and Tribal government and international partners;

“(3) maintaining an Ocean Acidification Information Exchange described under section 12404(b)(5) to allow for information to be electronically accessible, including information—

“(A) on ocean acidification developed through or used by the ocean acidification program described under section 12406(a); or

“(B) that would be useful to State governments, local governments, Tribal governments, resource managers, policymakers, researchers, and other stakeholders in mitigating or adapting to the impacts of ocean acidification and coastal acidification; and

“(4) establishing and maintaining the data archive system under subsection (d).

“(d) **DATA ARCHIVE SYSTEM.**—

“(1) **MANAGEMENT.**—The Secretary, in coordination with members of the interagency working group, shall provide for the long-term stewardship of, and access to, data relating to ocean acidification and coastal acidification by establishing and maintaining a data archive system that the National Center for Environmental Information uses to process, store, archive, provide access to, and incorporate to the extent possible, such data collected—

“(A) through relevant federally-funded research; and

“(B) by a Federal agency, State agency, local agency, Tribe, academic scientist, citizen scientist, or industry organization.

“(2) **EXISTING GLOBAL OR NATIONAL DATA ASSETS.**—In establishing and maintaining the data archive system under paragraph (1), the Secretary shall ensure that existing global or national data assets (including the data assets maintained by the National Centers for Environmental Information, the Integrated Ocean Observing System, and other existing data systems within Federal agencies) are incorporated to the greatest extent possible.

“(e) **STANDARDS, PROTOCOLS, AND PROCEDURES.**—With respect to the data described in subsection (d), the Secretary, in coordination with members of the interagency working group, shall establish and revise as necessary the standards, protocols, or procedures for—

“(1) processing, storing, archiving, and providing access to such data;

“(2) the interoperability and intercalibration of such data;

“(3) the collection of any metadata underlying such data; and

“(4) sharing such data with State, local, and Tribal government programs, potentially affected industry members, coastal stakeholders, fishery management councils and commissions, non-Federal resource managers, and academia.

“(f) **DISSEMINATION OF OCEAN ACIDIFICATION DATA AND COASTAL ACIDIFICATION DATA.**—The Secretary, in coordination with members of the interagency working group, shall disseminate the data described under subsection (d) to the greatest extent practicable by sharing such data on full and open access exchanges, including the Ocean Acidification Information Exchange described in section 12404(b)(5).

“(g) **REQUIREMENT.**—Recipients of grants from the National Oceanic and Atmospheric Administration under this subtitle that collect data described under subsection (d) shall—

“(1) collect such data in accordance with the standards, protocols, or procedures established pursuant to subsection (e); and

“(2) submit such data to the data archive system under subsection (d), in accordance with any rules promulgated by the Secretary.”.

#### **SEC. 7. NSF OCEAN ACIDIFICATION ACTIVITIES.**

Section 12407 of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3706) is amended—

(1) by striking “ocean acidification” each place it appears and inserting “ocean acidification and coastal acidification”;

(2) in subsection (a)—

(A) in the matter preceding paragraph (1)—

(i) by striking “continue” and all that follows through “which shall”;

(ii) by striking “proposals for research” and inserting “proposals for the researching”; and

(iii) by striking “its impacts” and inserting “their respective impacts”;

(B) in paragraph (1), by striking “marine ecosystems” and inserting “ecosystems”;

(C) in paragraph (2), by striking “; and” at the end and inserting a semicolon;

(D) in paragraph (3)—

(i) by striking “and its impacts” and inserting “and their respective impacts”; and

(ii) by striking the period at the end and inserting “; and”;

(E) by adding at the end the following new paragraph:

“(4) adaptation and mitigation strategies to address socioeconomic effects of ocean acidification and coastal acidification.”; and

(3) by adding at the end the following:

“(d) **REQUIREMENT.**—Recipients of grants from the National Science Foundation under this subtitle that collect data described under section 12406(d) shall—

“(1) collect data in accordance with the standards, protocols, or procedures established pursuant to section 12406(e); and

“(2) submit such data to the Director and the Secretary, in accordance with any rules promulgated by the Director or the Secretary.”.

#### **SEC. 8. NASA OCEAN ACIDIFICATION ACTIVITIES.**

Section 12408 of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3707) is amended—

(1) by striking “ocean acidification” each place it appears and inserting “ocean acidification and coastal acidification”;

(2) in subsection (a), by striking “its impacts” and inserting “their respective impacts”;

(3) by adding at the end the following new subsection:

“(d) **REQUIREMENT.**—Researchers from the National Aeronautics and Space Administration under this subtitle that collect data described under section 12406(d) shall—

“(1) collect such data in accordance with the standards, protocols, or procedures established pursuant to section 12406(e); and

“(2) submit such data to the Administrator and the Secretary, in accordance with any rules promulgated by the Administrator or the Secretary.”.

#### **SEC. 9. AUTHORIZATION OF APPROPRIATIONS.**

Section 12409 of the Federal Ocean Acidification Research and Monitoring Act of 2009 (33 U.S.C. 3708) is amended—

(1) in subsection (a), by striking “subtitle—” and all that follows through paragraph (4) and inserting the following: “subtitle \$30,500,000 for each of the fiscal years 2020 through 2024.”;

(2) in subsection (b), by striking “subtitle—” and all that follows through paragraph (4) and inserting the following: “subtitle \$20,000,000 for each of the fiscal years 2020 through 2024.”.

The SPEAKER pro tempore. Pursuant to the rule, the gentlewoman from Texas (Ms. JOHNSON) and the gentleman from Oklahoma (Mr. LUCAS) each will control 20 minutes.

The Chair recognizes the gentlewoman from Texas.

#### **GENERAL LEAVE**

Ms. JOHNSON of Texas. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days to revise and extend their remarks and to include extraneous materials on H.R. 1237, the bill now under consideration.

The SPEAKER pro tempore. Is there objection to the request of the gentlewoman from Texas?

There was no objection.

Ms. JOHNSON of Texas. Mr. Speaker, I yield myself such time as I may consume.

I rise in support of H.R. 1237, the COAST Research Act of 2019. Our Nation is facing an invisible but growing threat: ocean acidification. For the last 200 years, the oceans have soaked up about one-third of the excess carbon dioxide in the atmosphere from the burning of fossil fuels causing the oceans to become more acidic.

The science is clear. As spelled out in the Fourth National Climate Assessment and the Intergovernmental Panel on Climate Change Special Report, ocean acidification is causing the chemistry of the oceans to change at an unprecedented rate.

Ocean acidification makes it more difficult for shelled organisms like oysters, mussels, clams, and corals to build their shells and skeletons and has potentially devastating effects on marine ecosystems.

The effects of ocean acidification are already being seen and felt today in our coastal communities around the Nation.

Congress acted and passed the Federal Ocean Acidification Research and Monitoring Act in 2009, which catalyzed research and monitoring efforts

to better understand ocean acidification and its impacts. While this bill has successfully increased our understanding of ocean acidification, the Federal investment in research has been relatively small compared to the size of the problem.

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H.R. 1237 updates and reauthorizes our Federal ocean acidification response and expands the scope of the Federal efforts on this important issue.

H.R. 1237 also designates the National Oceanic and Atmospheric Administration as the lead Federal agency, which formalizes the leadership role it has played in conducting ocean acidification research and monitoring over the last decade.

Ocean acidification threatens the vitality of our coastal economies. We need to get ahead of the problem of ocean acidification before it causes even greater economic harm to our coast. We need to have a much better understanding of ocean acidification in order to mitigate and adapt to its effects.

H.R. 1237, along with the three other ocean acidification bills being considered today, offers a path toward solutions. If we don't act now, we risk going down an irreversible path.

June is World Oceans Month, and I see no better time for the U.S. House of Representatives to pass legislation to support the health of the oceans than now.

I want to take a brief moment to recognize the efforts of the sponsor of the bill, the gentlewoman from Oregon (Ms. BONAMICI). She has been a champion of this issue during her time here in the House and has been relentless in her efforts to authorize this program.

Mr. Speaker, I include in the RECORD letters from Earthjustice, Ocean Conservancy, the Northwest Association of Networked Ocean Observing Systems, the Integrated Ocean Observing System Association, and the Pacific Coast Shellfish Growers Association in support of this bill.

EARTHJUSTICE,  
June 4, 2019.

Re Earthjustice supports H.R. 1237, the Coastal and Ocean Acidification Stressors and Threats Research Act of 2019.

Hon. SUZANNE BONAMICI,  
House of Representatives,  
Washington, DC.

DEAR CONGRESSWOMAN BONAMICI: On behalf of our supporters and staff nationwide, we are writing to voice our strong support for the Coastal and Ocean Acidification Stressors and Threats (COAST) Act of 2019 (H.R. 1237). Ocean acidification is a serious global threat, as our oceans calibrate our atmosphere and maintain the conditions that have supported human life for millennia. This vital legislation leads us towards solutions that secure our ecosystems, our economies, and our health.

Ocean acidification has devastated coastal communities by eroding the sources of their livelihood and protection against ocean events. Acidic waters imperil everything from cod larvae and lobsters, to plankton and coral reefs. The process acidification

sets into motion will cause increasingly expensive damage on scales larger than we've already seen in our Pacific Northwest shellfish farms. Americans will take the hit, either in the grocery store, or—for coastal regions—in their jobs and their homes. However, immediate action can halt plunging pH levels and promote resilience in changing temperatures.

The COAST Research Act jumpstarts ocean recovery and helps communities cope with ocean acidification by updating the Federal Ocean Acidification Research and Monitoring Act (FOARAM) to face current threats. Funding FOARAM through 2023 ensures we don't backslide in protecting ourselves against ocean acidification, just as the danger is increasing. Incorporating the best available data on the full effects of ocean acidification, including socioeconomic and regional variations, ensures our national response to the problem works for the whole nation. Establishing an advisory board that represents and coordinates the diverse stakeholders impacted by ocean acidification ensures interests at all level—including industry, recreation, and conservation—are accounted for in federal action.

Bipartisan support for the COAST Research Act speaks to the seriousness of the problem and the efficiency of this proposed solution. Neither Democrats nor Republicans are willing to watch our blue economy dissolve in increasingly acidic waters. Both parties support urgent action to stabilize our oceans and fortify them against future changes. This bill provides the funding and strategy to do just that.

Without action, our ocean ecosystems and dependent economies may be barren by the end of this century. Congress has the opportunity to reverse this trend and keep our coasts and oceans vibrant and bountiful. We greatly appreciate your leadership in crafting the bill that can make such reversal possible.

Sincerely,

MARJORIE MULHALL,  
Legislative Director for Lands,  
Wildlife, and Oceans, Earthjustice.

OCEAN CONSERVANCY,  
Washington, DC, February 27, 2019.

Hon. SUZANNE BONAMICI,  
House of Representatives,  
Washington, DC.

DEAR REPRESENTATIVE BONAMICI: On behalf of Ocean Conservancy, please accept this letter of support for H.R. 1237, the Coastal and Ocean Acidification Stressors and Threats (COAST) Research Act of 2019. Americans depend on a healthy ocean, and ocean acidification threatens millions of jobs and livelihoods, cultures, and ways of life, from the Pacific Northwest's shellfish industry to Florida's coral reef tourism. We believe the COAST Research Act strengthens our nation's investments in ocean and coastal acidification, and we are proud to offer our support for this legislation.

From coast to coast, ocean acidification is having a broad range of impacts on the health of our ocean and coastal communities. Coastal industries are continuing to face the reality of an increasingly acidic ocean. In 2017, researchers at Oregon State University recorded some of the highest levels of ocean acidification in the world off the coast of the Pacific Northwest. Additionally, 63% of test sites on the west coast experienced levels of acidification known to cause commercial oyster production failures. From the Atlantic to the Pacific, ocean and coastal acidification has had extensive biological and socioeconomic impacts.

In 2009, Congress recognized the urgent need for federal investments in ocean acidification research and monitoring, and subse-

quently passed the Federal Ocean Acidification Research and Monitoring (FOARAM) Act of 2009. FOARAM established the federal government's work on ocean acidification by creating the NOAA Ocean Acidification Program and an interagency working group on ocean acidification. Much of our knowledge and understanding of ocean acidification that has emerged in the last decade can be credited to the federal funding authorized by FOARAM. The law's authorization, however, expired in 2012, and there are changes that can be made to further improve our ability to understand acidification in the open ocean as well as in the coastal zone.

We believe the COAST Research Act will help our nation and coastal communities better prepare for the effects from ocean and coastal acidification. Thank you for your leadership on this issue, and we look forward to working with you to craft solutions for our changing ocean environment.

Sincerely,

SARAH COOLEY, PH.D.,  
Director, Ocean Acidification  
Program, Ocean Conservancy.

NORTHWEST ASSOCIATION OF  
NETWORKED OCEAN OBSERVING SYSTEMS,  
Washington, DC, March 7, 2019.

Hon. SUZANNE BONAMICI,  
House of Representatives,  
Washington DC.

DEAR CONGRESSWOMAN BONAMICI: As the Director of the Northwest Association of Ocean Observing Systems (NANOOS), I write in support of the Coastal and Ocean Acidification Stressors and Threats (COAST) Research Act.

NANOOS provides access to near-real time observations, forecasts, and other tools that can be used to observe water properties in the Salish Sea and the coastal waters off Washington and Oregon. NANOOS can only serve our stakeholders via NOAA's Integrated Ocean Observing System (IOOS), which links together Federal agencies with our collective of local universities, government agencies, tribes, nonprofits, and industry organizations who collect quality oceanographic and meteorological data from moorings, buoys, and satellites from across the Pacific Northwest region. But our resources are limited and this COAST Research Act would help to highlight the pay-off investments can make.

In the Pacific Northwest, we know that ocean acidification is an issue already, as witnessed by the difference that monitoring water chemistry has made to shellfish growers. We know that impacts from ocean acidification may affect shellfish harvesters, fishermen, resource managers, and tribal and other coastal communities. NANOOS' work with IOOS and NOAA's Ocean Acidification Program have been instrumental in aiding adaptation.

The COAST Research Act will enhance these and other efforts to understand, monitor, and manage the nation's ability to respond and adapt to ocean acidification. NANOOS will be better able to meet the needs of our stakeholders if this Act is passed.

My thanks for your leadership and insights.

Sincerely,

JAN NEWTON,  
NANOOS Executive Director.

IOOS ASSOCIATION,  
March 5, 2019.

Hon. SUZANNE BONAMICI,  
House of Representatives,  
Washington, DC.

DEAR CONGRESSWOMAN BONAMICI: On behalf of the Integrated Ocean Observing System

(IOOS) Association and its national network of eleven coastal observing systems, I write to support the Coastal and Ocean Acidification Stressors and Threats (COAST) Research Act.

NOAA's Integrated Ocean Observing System (IOOS) links together Federal agencies and eleven Regional Associations (RAs) to design and to operate regional observing systems to provide timely and reliable data and information on our oceans, coasts, and Great Lakes. Coastal acidification is becoming an even more pressing concern for many of our stakeholders and users, such as shellfish growers, shellfish harvesters, fishermen, resource managers, and coastal communities.

The impacts of coastal acidification vary, and each system must be tailored to the unique situation of the region. The IOOS RAs work closely with NOAA's Ocean Acidification Program to understand the regional context, to deploy and operate sensors, support the data that can detect and monitor acidification to support and improve warnings and alerts and to provide for the sharing and integration of data.

The COAST Research Act will enhance these and other efforts to understand, monitor and manage the nation's ability to respond and adapt to ocean acidification. The Act does this by expanding the Advisory Board to include representatives of the variety of industries and stakeholder impacted by ocean acidification, expanding the strategic plan for research and monitoring, and expanding the role of the Federal agencies for addressing ocean acidification.

Sincerely,

ELLA (JOSIE) QUINTRELL,  
*Director.*

PACIFIC COAST SHELLFISH  
GROWERS ASSOCIATION,  
*March 9, 2019.*

Hon. SUZANNE BONAMICI,  
*House of Representatives,  
Washington, DC.*

DEAR REPRESENTATIVE BONAMICI: On behalf of the members of Pacific Coast Shellfish Growers Association (PCSGA), I am submitting this letter of support for H.B. 1237, the Coastal and Ocean Acidification Stressors and Threats (COAST) Research Act of 2019. Shellfish growers were the first community to call attention to the problems associated with ocean acidification when, in 2007, they experienced severe oyster larvae mortality in two out of three major west coast shellfish hatcheries. Since then, PCSGA has engaged in several local, state, and federal efforts and initiatives to ensure a future for this historic industry.

Shellfish farming on the west coast began in the late 1800's, fueled the California Gold Rush and was the reason for the development of many coastal towns. Today, PCSGA proudly represents 120 shellfish farms in Alaska, Washington, Oregon, California and Hawaii which farm mussels, clams, oysters and geoduck. Our members not only produce sustainable, healthy, food, but also provide significant ecosystem services such as aquatic habitat and water filtration, and support thousands of family-wage jobs within rural coastal communities.

For nearly a decade, the shellfish industry has benefited from NOAA's Ocean Acidification Program and the Integrated Ocean Observing System (IOOS), both of which relate to the Federal Ocean Acidification Research and Monitoring (FOARAM) Act of 2009. These programs and the directives within FOARAM have influenced the way shellfish growers operate their farms among the uncertainty of changing ocean conditions. Historically, growers only consulting their tide charts. Now, growers rely upon a variety of real-time data and tools to understand the

ocean changes and adapt methods and practices which allow them to continue farming in a productive and profitable manner. There is much work ahead of us and much yet to learn. COAST Research Act provides an essential pathway forward.

We are excited by the intent of COAST Research Act and the opportunities it provides. Not only is it a reasonable follow up to FOARAM but it also allows us to continue asking questions and seek innovative approaches to mitigate the impacts related to ocean acidification.

Thank you very much for your leadership on this and for your commitment to ensuring the long-term health of our coastal and marine areas upon which shellfish growers depend.

Respectfully,

MARGARET A. PILARO,  
*Executive Director.*

Ms. JOHNSON of Texas. Mr. Speaker, I strongly support this bipartisan bill, and I reserve the balance of my time.

Mr. LUCAS. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I rise in support of H.R. 1237, the COAST Research Act of 2019. This bipartisan legislation would reauthorize and modernize ocean acidification research and monitoring programs.

Ocean acidification is the result of a gradual decrease in pH in ocean chemistry. A small shift in pH can have a serious effect on marine ecosystems, including shellfish habitat, coral reefs, and fisheries habitat.

Congress recognized the need for a better understanding of the cause and the effects of ocean acidification by passing the Federal Ocean Acidification Research and Monitoring Act of 2009. This legislation created a framework for science organizations such as NOAA and the National Science Foundation to dedicate resources to studying the phenomenon. This program provided valuable information to the scientific community to better understand what caused ocean acidification and how to begin addressing this issue.

H.R. 1237 reauthorizes and modernizes those efforts by updating the strategic plan governing the Federal Government's research efforts, strengthening cooperation among scientific agencies. It designates NOAA as the lead agency for coordinating Federal efforts for addressing the Federal response to ocean acidification. Additionally, the bill clarifies that all federally funded research conducted in connection with the program is to be made publicly available.

This bill is the result of years of work in building a consensus among stakeholders, ranging from ocean conservation groups and sportsmen to coastal communities, about how best to address this problem moving forward.

Mr. Speaker, I urge my colleagues to support this bill, and I reserve the balance of my time.

Ms. JOHNSON of Texas. Mr. Speaker, I yield such time as she may consume to the gentlewoman from Oregon (Ms. BONAMICI).

Ms. BONAMICI. Mr. Speaker, I thank Chairwoman JOHNSON for yielding

time, also for her leadership on the committee, and I thank Chairwoman JOHNSON and Ranking Member LUCAS for their support of this legislation.

I rise today in support of the Coastal and Ocean Acidification Stressors and Threats, or COAST, Research Act, my bipartisan bill to expand scientific research and monitoring of ocean and coastal acidification.

According to the Fourth National Climate Assessment, catastrophic carbon dioxide concentrations are now higher than at any time in the last 3 million years. Approximately one-third of the carbon dioxide in the atmosphere dissolves into our oceans and estuaries, causing them to become more acidic.

In addition to atmospheric carbon dioxide, our oceans, estuaries, and coastal waterways are absorbing chemical inputs and excess nutrient runoff from land and coastal pollution.

Our understanding of the long-term consequences of changes in water chemistry on our marine ecosystem is still limited, but we do know that ocean and coastal acidification make it difficult for marine organisms to build their shells and skeletal structures. Some finfish, including endangered salmon in the Pacific Northwest, lose their sense of smell that they use for identifying prey, reproducing, and navigating their habitats.

Ocean acidification events are only projected to become more intense, longer, and increasingly common, especially on the Pacific Coast.

The COAST Research Act would improve scientific research on ocean and coastal acidification in the context of other environmental stressors and direct Federal agencies to assess adaptation and mitigation strategies. Importantly, the bill also expands the definition of ocean acidification to include estuaries and to recognize mechanisms that cause changes in coastal chemistry.

As chair of the Interagency Working Group on Ocean Acidification, NOAA is already leading interdisciplinary efforts to expand our understanding of changing ocean conditions. This bill would designate NOAA as the lead Federal agency responsible for implementing the Federal response to ocean and coastal acidification. This is a pragmatic response to calls for an interdependent national ocean acidification program office and recommendations from a September 2014 Government Accountability Office report.

Ocean acidification research is still in its infancy, and the best way to mitigate its effects is through regionally coordinated scientific research. The COAST Research Act directs NOAA to maintain a data archive system to process, store, archive, and provide access to data on ocean and coastal acidification from federally funded research, including existing global or national datasets and research from

State and local agencies, Tribes, academic scientists, citizen scientists, and industry organizations.

Additionally, the COAST Research Act would increase our understanding of the socioeconomic effects of ocean and coastal acidification and engage stakeholders. The bill creates an advisory board comprised of representatives of the shellfish and crab industry; finfish industry; seafood processors; recreational fishing; academia; non-governmental organizations; State, local, and Tribal governments; and regional coastal acidification networks. This regionally balanced group will advise the interagency working group on ocean and coastal acidification research and monitoring activities.

Our oceans and estuaries are facing the brunt of our inaction to reduce anthropogenic carbon emissions. We know that even if carbon dioxide emissions are halted today, many of the effects for our oceans will continue to occur over the course of the next few decades.

The COAST Research Act will support vulnerable communities, industries, and coastal and ocean managers by strengthening research on how they can best prepare and, when possible, adapt to ocean and coastal acidification. Oregon's shellfish industry and researchers at Oregon State University have collaborated on ocean acidification mitigation strategies that have helped the shellfish industry survive. Their research demonstrates what is possible when we invest in science and research to help coastal communities adapt to climate change.

Our oceans and estuaries are resilient, and we can help them heal, but we cannot afford to wait any longer. This is National Ocean Month and Capitol Hill Ocean Week, a good time to act to help protect the oceans and our planet.

Mr. Speaker, I want to close by thanking, again, my colleagues, Representative YOUNG, Representative POSEY, and Representative PINGREE, for their leadership on this issue. I truly appreciate the support from my fellow House Oceans Caucus and Congressional Estuary Caucus co-chairs. I also want to, again, thank Chairwoman JOHNSON and Ranking Member LUCAS for their support.

Mr. Speaker, I include in the RECORD letters from the Oregon Coordinating Council on Ocean Acidification and Hypoxia and Oregon State University in support of the COAST Research Act.

THE OREGON COORDINATING COUNCIL  
ON OCEAN ACIDIFICATION AND HYPOXIA,

March 8, 2019.

Re Coastal and Ocean Acidification Stressors and Threats (COAST) Research Act.

Hon. SUZANNE BONAMICI,  
Washington, DC.

DEAR REPRESENTATIVE BONAMICI: As the Co-Chairs of the State legislatively mandated, Oregon Coordinating Council on Ocean Acidification and Hypoxia (or "Oregon OAH Council"), we appreciate the opportunity to provide you with a letter of strong support for the Coastal and Ocean Acidifica-

tion Stressors and Threats (COAST) Research Act. Addressing intensifying ocean acidification (OA) conditions here in Oregon, as well as across the United States, is critical to our Nations understanding of larger impacts from CO2 emissions.

Oregon is among the first places in the world to observe direct impacts of ocean acidification and hypoxia (OAH), due to our unique geographic and oceanographic context, putting our fragile marine ecosystem at risk. Our coastal economies rely on our vibrant marine ecosystem. Our nearshore waters are home to sport and commercial fisheries, all of the State's mariculture operations, and contain critical nursery grounds for economically important species including rockfish, oysters, salmon, pink shrimp, and Dungeness crab. Oregon is not alone in experiencing the impacts from OA or hypoxia. Through actions such as those in the COAST Research Act we must act together as Americans to develop solutions for our coastal communities, economies, and ecosystems to prepare for future conditions.

In the coming years, the Oregon OAH Council will continue to take a thoughtful, collaborative, science-based approach to developing recommendations to address OAH in our state and beyond. Through further investments and initiatives, Oregon and the United States will benefit from adaptation and mitigation measures and will model to the world how to develop actionable solutions for OA adaptation and mitigation.

THE OREGON OAH COUNCIL HAS IDENTIFIED THREE URGENTLY NEEDED STRATEGIC ACTIONS, WHICH DIRECTLY ALIGN WITH OBJECTIVES WITHIN THE COAST RESEARCH ACT.

(1) Monitoring of key oceanographic and biological indicators of impacts from OAH.

At the same time that OA has been impacting our coasts, oxygen-depletion is on the rise; Oregon and much of the West coast has seen several seasons in a row with extended periods of hypoxia in our coastal waters. The Oregon OAH Council is encouraged that the COAST Research Act identifies the need to strengthen investments in OA research and monitoring in the context of other environmental stressors. Ocean acidification and hypoxia are compounding stressors for a wide range of marine animals, and as such must continue to be studied together. Through the COAST Research Acts reauthorization of funding of NOAA, NSF, and NASA, much needed resources will be made available to researchers across the United States to continue to expand our knowledge of OAH. The Oregon OAH Council also supports the initiative of the COAST Research Act to create data processing, storage, and archive facilities to provide for the long-term stewardship and standardization of data. By creating a central repository for OAH data it provides governments, scientists, and industry better access to the information need to inform their mitigation and adaption planning. Only by maximizing our current data and filling our knowledge gaps of OAH, can we as a Nation begin to be able to piece together for solutions for our coastal communities.

(2) Projects or programs that promote coastal economic and ecosystem resilience to OAH.

Fisheries and aquaculture are central to our history, are enjoyed by Americans across the nation year-round, and remain key to many of Oregon's coastal economies today. Yet, the future sustainability of these marine resources and communities' ability to rely on them, are uncertain in the face of significant ocean changes, including OAH, and uncertain in the face of our current state of preparation to adapt to those changes over time. This is why the Oregon

OAH Council supports activities and initiatives that promote resilience to increased OAH conditions, for both human communities and ecosystems. The COAST Research Act also stresses the importance of increasing our understanding of the socioeconomic effects of OA by expanding federal research to assess adaptation and mitigation strategies. There will be costs of inaction relative to CO2 mitigation and the United States has an obligation to relieve these costs wherever possible for our citizens.

(3) Tools and strategies to increase awareness of OAH science, impacts and solutions. As the impacts of OA intensify, it is going to be vitally important for our Nation to identify and advance opportunities to raise awareness of and communicate OAH science, impacts, and mitigation solutions. This is why the Oregon OAH Council is encouraged by the fact that the COAST Research Act recognizes the need to address the effects of OA on estuaries and integrate research, monitoring, and adaptation strategies. By integrating OA causes and effects, it better demonstrates the complexity of this climate issue, and provides a clearer message to communities. The Oregon OAH Council also supports the COAST Research Act establishment of an Advisory Board to increase coordination among stakeholders, including members of industry, to work with State and Federal governments to improve coordination. Recognizing the importance of a broad membership, our Oregon OAH Council includes members from industry, academia and state government agencies. For the benefit of our marine ecosystem and the human communities that rely on a healthy marine ecosystem, the Nation's adaptation and mitigation approaches to OA should include successful communication of new science, monitoring, and adaptation strategies.

As Co-Chairs of the Oregon OAH Council, we appreciate the opportunity to provide you with a letter of strong support for the COAST Research Act. The strategic investment and coordination opportunities outlined in this act are meaningful and will make a difference in our understanding of OAH science, impacts, and solutions. Through passage of this Act and the subsequent investment in science, adaptation and communications, the United States will demonstrate meaningful action in fighting OA and the global challenges of climate change, and preparing our citizens and economies for the changes ahead.

Thank you for your consideration of these comments.

Sincerely,

JOHN BARTH, PH.D.,  
Co-Chair, Oregon  
OAH Council, Executive Director, Marine Studies Initiative, Oregon State University.

CAREN BRABY, PH.D.,  
Co-Chair, Oregon  
OAH Council, Marine Resources Program Manager, Oregon Department of Fish and Wildlife.

OFFICE OF THE PROVOST AND EXECUTIVE VICE PRESIDENT, OREGON STATE UNIVERSITY,

Corvallis, OR, March 8, 2019.

Re H.R. 1237—The COAST Research Act of 2019.

Hon. SUZANNE BONAMICI,  
House of Representatives,  
Washington, DC.

DEAR REPRESENTATIVE BONAMICI: We write to offer Oregon State University's strong support for H.R. 1237, the COAST Research Act of 2019.

As marine habitats face new and daunting pressures threatening their sustainability, the COAST Research Act identifies the growing need for strategic and robust investments in ocean acidification (OA) research, monitoring and stakeholder collaboration.

Oregon State University is committed to interdisciplinary approaches to address the national and global challenges facing our oceans and coast communities. OSU has a deep history of global leadership in oceanography and engages in nationally ranked oceanographic monitoring programs and world-leading OA research. Further, the university recognizes that Oregon's estuaries and coastal regions are home to some of the world's most productive ecosystems and economically vital shellfish farms.

The university is encouraged that the COAST Research Act expands the definition of OA to include coastal and estuarine systems, and identifies OA as being affected by a combination of factors, including hypoxia. The university believes that by expanding federal definitions of OA and by increasing funding opportunities, researchers and managers will be able to best utilize resources to find solutions to address OA.

The university also is encouraged that this legislation recognizes the need for federal engagement to continue important investments. Doing so will enhance the integration of OA research, monitoring and adaptation strategies across principal federal research agencies, including the National Science Foundation, National Oceanographic and Atmospheric Administration, and the National Aeronautics and Space Administration.

Oregon State University understands that effective and collaborative partnerships and communication are essential for our state and nation to find adaptive and mitigation solutions to address OA. For example, the proposal to establish an Ocean Acidification Advisory Board will be essential for facilitating the important work still to be done.

The world's ocean belongs to everyone, and ocean health is critical to our future. In the coming decades, it will be essential for the nation and its universities to work collaboratively to improve and sustain the health of our oceans. Doing so, we will assure human wellness, environmental health and economic prosperity for future generations.

In closing, Oregon State University believes that the COAST Research Act proposes new strategic tools to expand understanding and address the problems facing our oceans and coastal communities.

Sincerely,

EDWARD FESER,  
*Provost and Executive  
Vice President.*

IREM TUMER,  
*Interim Vice President  
for Research.*

Ms. BONAMICI. Mr. Speaker, I urge all of my colleagues to support this bill.

Mr. LUCAS. Mr. Speaker, I yield such time as he may consume to the gentleman from Florida (Mr. POSEY), my colleague not only on the Science, Space, and Technology Committee, but on the Financial Services Committee, ever thoughtful and ever strong spirited.

Mr. POSEY. Mr. Speaker, I thank the gentleman for yielding and his kind remarks.

Mr. Speaker, I rise in support of H.R. 1237, the COAST Research Act, of which I am an original cosponsor.

Those of us who live on the coast understand that the coast is an essential

part of our lives. In my own State of Florida, approximately 80 percent of the population lives along the coast. About 6 million people work in our coastal communities and produce nearly \$280 billion a year in wages and contribute over \$700 billion in gross domestic product.

Today, we face uncertainty about the sustainability and the resilience of our coasts. Parts of our coast have come under assault from the ocean itself, even before anyone imagined anything about sea level rise.

Acidification presents uncertainties in the ocean and could pose severe effects to the biodiversity of our marine wildlife.

Along the Space Coast, we have seen a recent plague of algal blooms that foul our estuaries and threaten our economy. It is serious and it is heart-breaking.

The message is clear: We need to take care of our precious coast so that we can continue to enjoy the lifestyle and the economic well-being that we all cherish.

We must work with the Federal Government in the interest of improving our coastal resilience. That is why I have joined Congresswoman SUZANNE BONAMICI in directing NOAA to pick up the role of leading research for coastal acidification.

Mr. Speaker, I include in the RECORD four letters of support for the COAST Research Act from the following organizations: the Consortium for Ocean Leadership, the Surfrider Foundation, the Pacific States Marine Fisheries Commission, and the Northwest fisheries groups.

CONSORTIUM FOR OCEAN LEADERSHIP,  
*Washington, DC, March 1, 2019.*

Hon. SUZANNE BONAMICI,  
*Washington, DC.*

DEAR CONGRESSWOMAN BONAMICI: On behalf of the Consortium for Ocean Leadership (COL), which represents our nation's leading ocean science, research, and technology organizations from academia, industry, and aquariums, I am writing to express support for the Coastal and Ocean Acidification Stressors and Threats (COAST) Research Act (H.R. 6267). America relies on our ocean and coastal communities for our basic individual needs as well as our overall security and prosperity. Keeping these environments, and therefore their communities, safe from the myriad threats associated with ocean acidification is paramount to our ocean security. COL applauds the COAST Research Act in its mission to strengthen existing ocean acidification initiatives and introduce new strategies to better understand and manage this environmental stressor.

Ocean acidification, which occurs as the ocean absorbs higher concentrations of atmospheric carbon dioxide, threatens the health of the entire ocean. As corals, shellfish, and many types of plankton struggle to create and maintain their shells or exoskeletons in more acidic waters, ocean food webs are disrupted. This, in turn, threatens the crucial balance in many ecosystems, as well as our own food security, and jeopardizes the stability of those whose livelihoods depend on a healthy ocean. Combatting the causes and mitigating the effects of ocean acidification requires sustained congressional support and interagency collabora-

tion, as well as engagement from stakeholders in the private sector and academia. I strongly commend the COAST Research Act's commitment to advancing ocean acidification research and monitoring efforts, as well as promoting cooperation among stakeholder groups.

I offer my sincere thanks to you, Congresswoman Bonamici, along with Congresswoman Chellie Pingree and Congressmen Don Young and Bill Posey, for your bipartisan efforts to help us better understand ocean acidification and improve overall ocean health by strengthening federal investments in the research and increasing monitoring of changing ocean conditions. Our lives and our future may well depend on it.

Respectfully,

JONATHAN W. WHITE,  
RADM (RET.), USN,  
*President and CEO.*

SURFRIDER FOUNDATION,  
*Clemente, CA, March 7, 2019.*

Hon. SUZANNE BONAMICI,  
*Washington, DC.*

Re Support for Coastal and Ocean Acidification Stressors and Threats (COAST) Research Act.

DEAR HONORABLE CONGRESSWOMAN BONAMICI: On behalf of Surfrider Foundation's 160 Chapters and student clubs and our 250,000 supporters, activists and members worldwide, we write to express our enthusiastic supports for Coastal and Ocean Acidification Stressors and Threats (COAST) Research Act. The Surfrider Foundation (Surfrider) is a non-profit grassroots organization dedicated to the protection and enjoyment of our world's oceans, waves and beaches.

As climate change continues to impact our ocean and coast, local communities need to plan ahead to better understand and plan for a changing climate. Ocean acidification (OA) is particularly concerning for Surfrider. The current understanding of ocean acidification impacts on ocean and estuarine ecosystems is inadequate and must be improved to fully prepare for and adapt to changing environmental conditions and manage our natural resources in nearshore locations. In addition, more integration and coordination is needed between local, state, and national entities to ensure adequate scientific research and investments in related topics such as nutrient loading, hypoxia, ocean acidification, and harmful algae bloom research and other observational systems are targeted to meet coastal communities' needs.

Surfrider is particularly pleased to see the legislation focuses on adaptation strategies for ocean acidification and expands the definition of ocean acidification to include estuaries. In addition, we are pleased to see that the bill would expand the Interagency Working Group's strategic research plan to also address socioeconomic effects of ocean and coastal acidification and assess adaptation and mitigation strategies.

Furthermore, establishing an Advisory Board to increase coordination among stakeholders, and requiring NOAA to facilitate an Interagency Working Group's strategic research plan, that coordinates monitoring and research efforts among federal and local agencies and stakeholders is critical to ensure success of this important piece of legislation.

Thank you for introducing such important legislation.

Sincerely,

STEFANIE SEKICH-QUINN,  
*Surfrider Foundation, Coastal  
Preservation Manager.*

CHARLIE PLYBON,  
*Surfrider Foundation,  
Oregon Policy Manager.*

PACIFIC STATES MARINE  
FISHERIES COMMISSION,  
Portland, OR, March 4, 2019.

Hon. SUZANNE BONAMICI,  
House of Representatives,  
Washington, DC.

DEAR REPRESENTATIVE BONAMICI: The Pacific States Marine Fisheries Commission has a standing resolution adopted by the Commissioners to support and encourage new funding should be identified to augment coastwide research and monitor changing ocean conditions, harmful algal blooms, and ocean acidification.

We have had an opportunity to review the Coastal and Ocean Acidification Stressors and Threats (COAST) Research Act. The bill would reauthorize the Federal Ocean Acidification Research and Monitoring Act to continue funding research through the National Oceanic and Atmospheric Administration and the National Science Foundation. The bill would designate NOAA as the lead federal agency in the coordination of the federal response to ocean acidification. The bill also broadens the program to include marine estuaries.

The bill, as introduced, strengthens the federal research programs that focus on ocean acidification. West Coast and Alaska ocean stakeholders are already feeling the socioeconomic impacts of ocean acidification. We view ocean acidification research as an important ongoing federal responsibility in seeking to address the negative impacts to these stakeholders. Pacific States therefore supports the your efforts and that of other Members of the Ocean Caucus in seeking to expeditiously move the Coast Research Act through the House of Representatives.

Regards,

RANDY FISHER,  
Executive Director.

MARCH 10, 2019.

Hon. SUZANNE BONAMICI,  
House of Representatives,  
Washington, DC.

DEAR REPRESENTATIVE BONAMICI: From coast to coast, ocean acidification is having a broad range of impacts on the health of our ocean and coastal communities. Coastal industries are continuing to face the reality of an increasingly acidic ocean. In 2017, researchers at Oregon State University recorded some of the highest levels of ocean acidification in the world off the coast of the Pacific Northwest. Additionally, 63 percent of test sites on the west coast experienced levels of acidification known to cause commercial oyster production failures.

Our Pacific Northwest economies, our recreational and commercial fishing, and shellfish industry as well as our great northwest tourism economy—all depend on a healthy ocean. And because we are already seeing the effects of ocean acidification, we support your efforts and we support H.R. 1237, the Coastal and Ocean Acidification Stressors and Threats (COAST) Research Act of 2019.

Much of our knowledge and understanding of ocean acidification that has emerged in the last decade can be credited to the federal funding authorized by Federal Ocean Acidification Research and Monitoring (FOARAM) Act of 2009. FOARAM established the federal government's work on ocean acidification by creating the NOAA Ocean Acidification Program and an interagency working group on ocean acidification. FOARAM's authorization expired in 2012. The COAST Research Act amends FOARAM to further improve our ability to understand acidification in the open ocean as well as in the coastal zone.

We support the COAST Research Act and believe it will help our coastal communities better prepare for the effects from ocean and coastal acidification. Thank you for your

leadership to strengthen the nation's focus and investment in oceans and coastal acidification.

Sincerely,

LYF GILDERSLEEVE,  
Owner, Flying Fish  
Company—Sustainable  
Seafood.

GRANT PUTNAM,  
President, Northwest  
Guides and Anglers  
Association.

LIZ HAMILTON,  
Executive Director,  
Northwest Sport-  
fishing Industry As-  
sociation.

JOSEPH BOGAARD,  
Executive Director,  
Save Our Wild Salm-  
on Coalition.

GREG BLOCK,  
Executive Director,  
Sustainable North-  
west.

DAVID MOSKOWITZ,  
Executive Director,  
The Conservation  
Angler.

KURT BEARDSLEE,  
Executive Director,  
Wild Fish Conser-  
vancy.

GUIDO RAHR,  
Executive Director,  
Wild Salmon Center.

Mr. POSEY. Mr. Speaker, we must not fail to preserve the sustainability and resilience of our coastal resources, our environments, and our economies.

Mr. Speaker, I ask my colleagues to support the COAST Research Act.

Ms. JOHNSON of Texas. Mr. Speaker, I would simply urge the passage of this bill, and I yield back the balance of my time.

Mr. LUCAS. Mr. Speaker, I urge a "yes" vote, and I yield back the balance of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentlewoman from Texas (Ms. JOHNSON) that the House suspend the rules and pass the bill, H.R. 1237, as amended.

The question was taken; and (two-thirds being in the affirmative) the rules were suspended and the bill, as amended, was passed.

A motion to reconsider was laid on the table.

#### COASTAL COMMUNITIES OCEAN ACIDIFICATION ACT OF 2019

Ms. JOHNSON of Texas. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 1716) to direct the Secretary of Commerce, acting through the Administrator of the National Oceanic and Atmospheric Administration, to conduct coastal community vulnerability assessments related to ocean acidification, and for other purposes, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 1716

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

#### SECTION 1. SHORT TITLE.

This Act may be cited as the "Coastal Communities Ocean Acidification Act of 2019".

#### SEC. 2. STATE AND UNITED STATES DEFINED.

Section 12403 of the Federal Ocean Acidification Research And Monitoring Act of 2009 (33 U.S.C. 3702) is amended—

(1) by redesignating paragraph (3) as paragraph (4);

(2) by inserting after paragraph (2) the following:

"(3) STATE.—The term 'State' means each State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, the Virgin Islands of the United States, and any other territory or possession of the United States."; and

(3) by adding at the end the following:

"(5) UNITED STATES.—The term 'United States' means the States, collectively."

#### SEC. 3. COASTAL COMMUNITY VULNERABILITY ASSESSMENT.

(a) IN GENERAL.—Section 12406 of the Federal Ocean Acidification Research And Monitoring Act of 2009 (33 U.S.C. 3705) is amended—

(1) by redesignating subsection (b) as subsection (d); and

(2) by inserting after subsection (a) the following:

"(b) COMMUNITY VULNERABILITY ASSESSMENT.—

"(1) IN GENERAL.—The Secretary, through the program established under subsection (a), shall conduct an ocean acidification coastal community vulnerability assessment, and issue a corresponding public report, which shall be updated at least once every 7 years.

"(2) REQUIREMENTS.—The assessment conducted under paragraph (1) shall—

"(A) identify the United States coastal communities, including island communities, low-population rural communities, and subsistence communities, that are most dependent on coastal and ocean resources that may be impacted by ocean acidification;

"(B) assess the nature of the social and economic vulnerabilities of those communities, including the economic impact on local or regional commercial fisheries and recreational opportunities;

"(C) identify the ocean acidification impacts that might harm those communities, including impacts from changes in ocean and coastal marine resources that are not managed by the Federal Government;

"(D) identify key knowledge gaps where research could be devoted to better understand the possible impacts of ocean acidification on those communities, the risks and threats facing those communities, and possible adaptation strategies for those communities; and

"(E) be conducted in collaboration with experts, indigenous knowledge groups, and stakeholders who are familiar with the unique economic, social, ecological, geographic, and resource concerns of coastal communities in the United States, including representatives of—

"(i) the National Marine Fisheries Service and the Office for Coastal Management of the National Oceanic and Atmospheric Administration;

"(ii) National Integrated Coastal and Ocean Observation System regional information coordination entities established under section 12304(c)(4) of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3603(c)(4));

"(iii) regional ocean acidification networks; and

"(iv) State sea grant programs (as defined in section 203 of the National Sea Grant College Program Act (33 U.S.C. 1122)).

"(c) SUPPORT FOR STATE AND LOCAL VULNERABILITY ASSESSMENTS AND STRATEGIC RESEARCH PLANNING.—In carrying out the program established under subsection (a), the Secretary shall