

117TH CONGRESS
1ST SESSION

H. R. 2533

To provide for a study by the National Academies of Sciences, Engineering, and Medicine examining the impact of ocean acidification and other stressors in estuarine environments.

IN THE HOUSE OF REPRESENTATIVES

APRIL 14, 2021

Mr. POSEY (for himself, Ms. BONAMICI, and Mr. MAST) introduced the following bill; which was referred to the Committee on Science, Space, and Technology, and in addition to the Committee on Natural Resources, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

A BILL

To provide for a study by the National Academies of Sciences, Engineering, and Medicine examining the impact of ocean acidification and other stressors in estuarine environments.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “National Estuaries and
5 Acidification Research Act of 2021” or the “NEAR Act
6 of 2021”.

1 **SEC. 2. FINDINGS.**

2 Congress finds the following:

3 (1) Ocean acidification impacts human health,
4 natural resources, and the environmental, economic,
5 and recreational uses of the coastline.

6 (2) The current understanding of ocean acidifi-
7 cation impacts on estuarine ecosystems is inadequate
8 to fully prepare and manage for changing environ-
9 mental conditions in nearshore locations.

10 (3) While pH can be measured with high preci-
11 sion and accuracy in open ocean environments, more
12 understanding of the carbonate system in estuarine
13 ecosystems is needed for precise and accurate meas-
14 urements and observations.

15 (4) The interaction of multiple stressors, includ-
16 ing salinity, pH, temperature, sea level rise, and nu-
17 trient input, within estuarine ecosystems is inad-
18 equately understood for managing the health, eco-
19 nomic, recreational, and environmental impacts driv-
20 en by these interactions.

21 (5) A better understanding is needed of how
22 anthropogenic influences in coastal environments af-
23 fect estuarine ecosystems.

24 (6) More integration and coordination is needed
25 among regional, national, and global environmental
26 observations in estuarine environments, supporting

1 prior investments in related topics such as nutrient
2 loading, hypoxia, ocean acidification, and harmful
3 algae bloom research and observational systems.

4 **SEC. 3. STUDY EXAMINING THE IMPACT OF OCEAN ACIDIFI-**
5 **CATION AND OTHER ENVIRONMENTAL**
6 **STRESSORS ON ESTUARINE ENVIRONMENTS.**

7 (a) IN GENERAL.—Not later than 60 days after the
8 date of enactment of this Act, the Secretary of Commerce
9 shall make appropriate arrangements with the National
10 Academies of Sciences, Engineering, and Medicine (re-
11 ferred to in this Act as the “National Academies”) under
12 which the National Academies shall conduct a study
13 that—

14 (1) examines the existing science of ocean acidi-
15 fication in estuarine environments;

16 (2) examines the challenges to studying ocean
17 acidification and ocean acidification’s interactions
18 with other environment stressors in estuarine envi-
19 ronments;

20 (3) provides recommendations for improving fu-
21 ture research with respect to ocean acidification in
22 estuarine environments; and

23 (4) identifies pathways for applying science in
24 management and mitigation decisions relating to
25 ocean acidification in estuarine environments.

1 (b) CONTENTS OF STUDY.—The study described
2 under subsection (a) shall include—

3 (1) the behavior of the carbonate system within
4 estuarine environments;

5 (2) the interactions of the carbonate system
6 with other biotic and abiotic characteristics of estua-
7 rine ecosystems;

8 (3) how environmental and anthropogenic
9 changes or disturbances could affect abiotic and bi-
10 otic processes within estuaries;

11 (4) how estuarine biotic and abiotic processes
12 will be affected under predicted environmental
13 changes;

14 (5) the current state of data collection, inter-
15 pretation, storage, and retrieval and observational
16 infrastructure of abiotic and biotic parameters in es-
17 tuarine ecosystems;

18 (6) the gaps that exist in understanding the
19 socio-economic and health impacts of ocean acidifica-
20 tion in estuaries;

21 (7) future directions for scientific research; and

22 (8) pathways for applying science in manage-
23 ment and mitigation decisions.

24 (c) REPORT.—In entering into an arrangement under
25 subsection (a), the Secretary shall request that the Na-

1 tional Academies transmit to Congress a report on the re-
2 sults of the study not later than 24 months after the date
3 of enactment of this Act.

4 (d) AUTHORIZATION OF APPROPRIATIONS.—There
5 are authorized to be appropriated to carry out this section
6 \$1,000,000.

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