MEMORANDUM OF UNDERSTANDING

BETWEEN THE

SMITHSONIAN INSTITUTION

AND THE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

This Memorandum of Understanding ("MOU"), effective as of the date signed below ("Effective Date"), is entered into by and between the Smithsonian Institution ("the Smithsonian"), a non-profit trust instrumentality of the United States created in 1846 by an act of the United States Congress, having its principal place of business at 1000 Jefferson Drive, SW, Washington, DC 20560, U.S.A., by and through the Office of the Under Secretary for Science and Research, and the National Oceanic and Atmospheric Administration ("NOAA"), a U.S. Federal executive agency established in 1970 within the U.S. Department of Commerce that replaced the Environmental Science Services Administration whose mission was to unify and oversee the meteorological, climatological, hydrographic, and geodetic operations of the United States, having its principal place of business at 1401 Constitution Avenue NW, Room 5128, Washington, DC 20230, U.S.A., by and through the Office of the Under Secretary of Commerce for Oceans and Atmosphere.

WHEREAS the Smithsonian was established for the "increase and diffusion of knowledge" and has established museums, research centers and programs dedicated to the understanding and preservation of humanity's cultural heritage, the encouragement of contemporary cultural creativity, and the understanding and sustaining of the planet's biodiversity.

WHEREAS the National Oceanic and Atmospheric Administration was established to understand and predict changes in climate, weather, ocean, and coasts; to share that knowledge and information with others; and to conserve and manage coastal and marine ecosystems and resources; and, works with partners and other nations to advance the ability to respond to changes in climate and other environmental challenges that imperil Earth's natural resources, human life and economic vitality.

WHEREAS the Smithsonian has the legal authority to enter into this MOU pursuant to 20 U.S.C. § 41 *et seq.*, and NOAA has the legal authority to enter into this MOU pursuant to section 314 of the American Innovation and Competitiveness Act, Public Law 114-329 (2017); the America COMPETES Act, 33 U.S.C. § 893(a); and Executive Order 13840, Ocean Policy to Advance the Economic, Security, and Environmental Interests of the United States.

WHEREAS both the Smithsonian and NOAA have a common purpose to execute projects to better understand and protect planet Earth, communicate our findings to the public, and maintain a long history of collaboration.

NOW, THEREFORE, the Smithsonian and NOAA (collectively the "Parties") agree as follows:

1. AREAS OF COLLABORATION

The Smithsonian and NOAA plan to work collaboratively to:

- 1.1 Consider how resources may be aligned to establish or enlarge the impact of existing and planned programs of mutual interest;
- 1.2 Discuss ways in which the Parties may leverage the convening power of the Smithsonian and the extensive scientific, historical and cultural research it supports; and the role NOAA plays as a global leader in oceanic and atmospheric research and provider of information products; to organize and host conferences, workshops, and symposia on potential solutions to shared societal challenges, where appropriate;
- 1.3 Identify opportunities to work with and through communities around the world to build and exchange capacity and share expertise that aim to strengthen a global network of professionals;
- 1.4 Explore opportunities to support and leverage relevant and important research, technology development, projects, and programming that advance mutual interests including, but not limited to, work on marine biodiversity, invasive species, resilience in marine fisheries and other living resources and the communities that rely on them, habitat restoration, coastal blue carbon, marine protected areas, marine and coastal monitoring, underwater cultural heritage, science history and heritage, education and outreach, weather and climate, and ocean (environmental) justice;
- 1.5 Use their expertise and capacity to build, enhance, manage, and maintain biological collections to maximize their long-term value in addressing ongoing and future scientific questions related to national priorities and concerns, including but not limited to development and implementation of 'omics techniques (e.g., genome skimming, eDNA analytics);
- 1.6 Create awareness on areas of mutual interest, share approaches and optimal processes to advance fulfillment of goals and objectives, encourage exchange of data and information with both internal and external audiences, and promote success through outreach;
- 1.7 Develop joint projects and programs with sustained and measurable impacts, including collaboration between the Marine Biodiversity Observation Network and MarineGEO;
- 1.8 Collaborate on priorities for climate change and nature through the U.S. Global Change Research Program, the National Science and Technology Council Subcommittee on Climate Services, and other interagency groups to coordinate Federal research and investments in climate literacy, understanding the forces shaping the global environment, both human and natural, and their impacts on society, both past and future;
- 1.9 Develop shared data and research standards and protocols that incorporate the FAIR data principles (Findable, Accessible, Interoperable, and Reusable) when possible. This can include, but is not limited to, comprehensive datasets, data or methodological standardization (i.e., metadata standards), and streamlined data archival pipelines, inclusive of pending national strategies on biodiversity and eDNA which focus on the delivery of biological data;

- 1.10 Identify opportunities to collaborate on scientific diving training, proficiency and mission support and share statistical data on decompression profiles and diver physiology to promote the safety and health of the Parties operational staff;
- 1.11 Discuss ways in which the Parties can use their unique partnership that brings science and education together with NOAA's use of aviation and space technology to understand and monitor Earth to reach new audiences at the Bezos Learning Center and collaborate on other education and outreach activities at the National Air and Space Museum and Steven F. Udvar-Hazy Center; and
- 1.12 Collaborate on education and outreach projects and exhibitions with the purpose of promoting science, technology, engineering, math and environmental education and enhancing the awareness, understanding, and engagement of the public with respect to subjects under NOAA and Smithsonian missions.

2. RESPONSIBILITIES OF THE PARTIES

2.1 Smithsonian agrees to:

- 2.1.1 Discuss and identify ways to facilitate access to Smithsonian facilities, data, collections, and other content resources particularly as they relate to ocean and coastal science, management, policy, and applications, including the ongoing support of NOAA National Systematic Laboratory staff who are embedded at the National Museum of Natural History;
- 2.1.2 Identify Smithsonian speakers and collaborators for potential participation in exchanges, convenings, trainings, programs, bilateral meetings and/or strategic dialogues;
- 2.1.3 Maintain Smithsonian scientific and scholarly engagement in NOAA programming including the ongoing collaboration with the Marine Biodiversity Observation Network;
- 2.1.4 Collaborate on issues related to marine biodiversity, marine and coastal community resilience, invasive species, marine and estuarine migratory species, 'omics approaches to ocean biology (e.g., eDNA, genomics, bioinformatics), blue carbon ecosystems, marine protected areas, weather and climate, ocean pollution, scientific collections, citizen science and community outreach, history, art, culture, and other related fields within the Smithsonian's broad areas of expertise and engagement;
- 2.1.5 Continue collaborating with NOAA in the development of materials and programs for education and outreach; and
- 2.1.6 Continue collaborating with NOAA on updates to existing exhibitions and collaborate on new exhibitions of relevance to both entities, where appropriate.

2.2 NOAA agrees to:

2.2.1 Discuss and identify ways to facilitate access to NOAA facilities, data, collections, and other content resources particularly as they relate to atmospheric, ocean, coastal and Great Lakes science, management, policy, and applications, including opportunities for Smithsonian scientists and scholars to participate in

- NOAA-supported missions or expeditions when participation would benefit mutual goals;
- 2.2.2 Identify NOAA speakers and collaborators for potential participation in exchanges, convenings, educational outreach, trainings, programs, bilateral meetings and/or strategic dialogues; and collaborate on internship, fellowship, and/or visiting staff opportunities;
- 2.2.3 Collaborate with Smithsonian Enterprises on products to raise awareness of shared goals and bring learning experiences to the public through Smithsonian distribution platforms, including Smithsonian Books;
- 2.2.4 Collaborate on issues related to marine biodiversity, marine and coastal community resilience, invasive species, marine and estuarine migratory species, 'omics approaches to ocean biology (e.g., eDNA, genomics, bioinformatics), blue carbon ecosystems, marine protected areas, weather and climate, ocean pollution, scientific collections, citizen science and community outreach, and other related fields within NOAA's broad areas of expertise and engagement, including the ongoing collaboration with MarineGEO;
- 2.2.5 Collaborate to promote the collection and management of biological collections as vital resources for the Nation;
- 2.2.6 Provide leadership through the management and integration of a broad network of education partnerships and programs including design, development and implementation of informal and formal ocean science education materials, programs and public programming activities and development of educational materials that support each institution's education priorities and efforts to implement the Ocean Literacy and Climate Literacy essential principles;
- 2.2.7 Continue collaborating with Smithsonian on computer interactives that provide science information and current events, updating and maintaining content, and utilizing and collaborating on new venues to mirror the information; on updates to existing exhibitions to keep them fresh including through the use of live or real-time data streams; and discuss ways NOAA can contribute to new exhibitions; and
- 2.2.8 Continue donating engineering models and spare science instruments, or equipment no longer needed operationally or for other purposes, to the Smithsonian Institution for display and archival purposes, and inquire with its partners for others as needed.

3. IMPLEMENTATION OF SPECIFIC PROJECTS

The Parties will enter into a separate written agreement for each specific initiative or project arising under this MOU that requires the commitment of funds and other resources from both Parties or otherwise necessitates binding written documents reflecting the Parties' mutual understanding in detail for planning, development and implementation of the project ("Project Agreement"). These agreements could also take other forms including grants, contracts, or Interagency Agreements, under appropriate legal authority.

Specific actions between the parties not involving the commitment of funds may still require the execution of additional documentation to the extent meaningful resources – of staff or otherwise

- are being committed, including but not limited to, exchanges of personnel, the transfer of certain data, or donation of equipment.

4. FUNDING

This MOU creates no financial obligation or commitment of staff or other resources on the part of either Party. All activities undertaken pursuant to this MOU shall be subject to available funding.

5. REPRESENTATIVES

5.1 *Institutional Representative*. Each Party hereby designates an Institutional Representative who will have authority to execute, modify, and interpret the terms and conditions, as necessary. The Institutional Representatives for the respective Parties are as follows:

Smithsonian:

Ellen R. Stofan, Under Secretary for Science and Research Smithsonian Institution, 1000 Jefferson Drive, SW, Washington, DC 20560

NOAA:

Sarah Kapnick, Chief Scientist National Oceanic and Atmospheric Administration, Department of Commerce 1401 Constitution Avenue, NW, Washington, DC 20230

5.2 Project Liaison. Each Party hereby designates a Project Liaison who will be responsible for the oversight of the activities described herein and will be the point of contact for the day-to-day activities regarding the implementation of this MOU. The Project Liaison will serve as the primary point of contact for this MOU and to whom communications should be sent, unless otherwise specified in this MOU. The Project Liaison will not have authority to execute or terminate this MOU or amendments thereto. Each Project Agreement will also include a Project Liaison. The Project Liaisons for the respective Parties are as follows:

Smithsonian:

Monique Chism, Under Secretary for Education (202) 633-5235, ChismM@si.edu
Smithsonian Institution
1000 Jefferson Drive, SW, Washington, DC 20560

MarineGEO:

Emmett Duffy, Chief Scientist (443) 482-2453, <u>DuffyE@si.edu</u> Smithsonian Environmental Research Center 647 Contees Wharf Road, Edgewater, MD 21037 NOAA:

Louisa Koch, Director of Education (301) 351-0861, Louisa.Koch@noaa.gov
Office of Education
Office of the Under Secretary
National Oceanic and Atmospheric Administration
Silver Spring, MD 20910

Gabrielle Canonico, Manager, U.S. Integrated Ocean Observing System Marine Life Program and U.S. Marine Biodiversity Observation Network (301) 529-7592, Gabrielle.Canonico@noaa.gov
National Oceanic and Atmospheric Administration
Silver Spring, MD 20910

5.3 Each Party reserves the right to substitute, with prior notice to and subject to approval of the other Party, the Institutional Representative or the Project Liaison.

6. PUBLIC DISCLOSURE

Both Parties may disclose to the public the existence of this MOU and information with respect to activities and projects contemplated herein in accordance with their respective policies on the disclosure of information. Nothing in this MOU shall be deemed confidential.

7. USE OF NAMES AND MARKS

Except as permitted under this paragraph, no Party shall refer to another Party or use the other Party's name, symbols, or trademarks in any manner or through any medium whether written, oral or visual for any purpose whatsoever, including but not limited to advertising, marketing, promotion, publicity, solicitation or fundraising, without the other Party's prior written approval. Each Party may use the other Party's name and/or symbols in announcing and otherwise promoting this collaboration or a specific Project Agreement, provided all language and phrases concerning or referring to the other Party shall be approved in writing in advance by the other Party and all policies regarding the use of each Parties' symbols are followed. Use of NOAA's symbols will comply with all requirements including Department Administrative Order 201-1: *Symbols of the Department of Commerce*, located at Privacy Main Page, Office of Privacy and Open Government, U.S. Department of Commerce (doc.gov).¹

8. DISSEMINATION OF RESEARCH/INTELLECTUAL PROPERTY

8.1 As a general principle, the Parties will encourage their staff to publish and otherwise disseminate all knowledge and information derived from research conducted under this MOU. For collaborative research projects initiated together, the Parties will freely share data, publications, and technical advice.

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 $^{^1\,\}underline{www.osec.doc.gov/opog/dmp/daos/dao201_1.html}$

- 8.2 Each Party shall retain all rights, including copyright if applicable, in the intellectual property produced or contributed solely by its employees, agents, and contractors pursuant to this MOU. The Parties will cooperate in identifying intellectual property that is solely the work of one Party and that which is a product of a collaborative effort.
- 8.3 If the collaboration results in copyrightable subject matter, the Parties agree to jointly own the copyright, with the understanding that both Parties may freely use, copy or distribute, publish, and authorize others to use such materials, in all media now known or hereafter invented, for educational, non-commercial purposes, subject to providing credit to the other Party. The Parties shall not be required to share any revenues that may result from the use of these jointly owned materials.

9. NONDISCRIMINATION

In the administration of this MOU or any Project Agreements, the Parties shall not discriminate on any basis prohibited by applicable law, including on the basis of race, sex, age, disability, ethnicity, religion, or national origin.

10. TERM AND RENEWAL

This MOU shall commence on the Effective Date, first set forth above, and shall continue in effect for 5 years unless terminated earlier in accordance with this MOU. The Parties may renew this MOU upon their mutual written consent.

11. TERMINATION

Either Party may terminate this MOU for any reason prior to its expiration by providing 30 days written notice of its intent to terminate to the Institutional Representative. This MOU also may be terminated at any time by mutual written agreement of the Parties. Termination of specific Project Agreements will be governed by the terms of the specific Project Agreement.

12. RELATIONSHIP OF THE PARTIES

Under no circumstances will this MOU be construed as creating or establishing any formal, legal, association, partnership, joint venture, principal/agent or master/servant relationship between the Parties.

13. ASSIGNMENT

This MOU may not be assigned by either Party, except with the express written permission of the other Party's Institutional Representative.

14. DISPUTE RESOLUTION

Any dispute arising under this MOU that cannot be resolved by the Project Liaisons will be resolved by good faith consultation or negotiation by the Institutional Representatives or their designees, or by any other way mutually agreed upon by the Parties.

15. MODIFICATION AND WAIVERS

No variation, amendment, change, modification or waiver of any term, provision or condition of this MOU will be valid unless in writing and signed by the Institutional Representatives of both Parties.

16. FORCE MAJEURE

The Parties acknowledge that this MOU or any project arising under it may be suspended or terminated due to an event of force majeure including, but not limited to, fire, earthquake, epidemic, explosion, casualty, strike, act of war, riot, civil disturbance, terrorism, act of God, state, local or national law, decrees or ordinance, or any executive or judicial order, or any other reason beyond the Parties' control. Each Party will notify the other Party as soon as it is aware of any event of force majeure which would delay or prevent the performance. In the event of a force majeure, the Parties will consult with each other to determine a revised timeline for performance or whether to terminate the MOU.

17. ENTIRE AGREEMENT

The terms and conditions herein constitute the entire agreement and understanding by and between the Parties and shall supersede all other communications, negotiations, arrangements, and agreements either oral or written, with respect to the subject matter herein.

18. COUNTERPARTS; SIGNATURE

This MOU may be executed in duplicate and each original shall be equally effective. Signatures on this MOU sent by facsimile or pdf are valid and binding as original signatures.

WE, THE UNDERSIGNED, HAVE READ AND AGREE WITH THIS MOU:

THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	THE SMITHSONIAN INSTITUTION
By:	Ву:
Richard W. Spinrad, Ph.D. Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator	Ellen R. Stofan Under Secretary for Science and Research
Date: 1/19/2024	Date: