

Smithsonian Splash



Smithsonian
Scientific Diving Program

Fall 2025



Credit: Eva Hoban/SERC

Welcome to Splash, the Smithsonian Scientific Diving Newsletter

Welcome to the second edition of the Smithsonian Splash! Splash is the bi-annual newsletter providing updates, new information and exciting news involving the Smithsonian Scientific Diving Program (SDP).

In this edition we say a fond farewell to the Smithsonian Dive Officer, Douglas Schleiger, and Assistant Dive Officer, Laurie Penland, announce dates for the next scientific diving class, and introduce the Scientific Diving Control Board (SDCB).

We also highlight research projects from divers at the Smithsonian Tropical Research Institute and the Smithsonian Marine Station.

If you or your team have exciting news to share, please reach out to your unit diving officer (UDO) so that we can highlight and showcase your work in future editions.

Enjoy the newsletter!

In this newsletter
you can expect:

Program Updates

Mark your calendar

Reminders for Divers

Meet the Scientific Diving
Control Board

Scientific Diving Spotlight

Resources for Divers



Credit: Zach Foltz/SMS



Credit: Emily Anderson/SERC

Program Updates



2025 Training

In 2025, the dive program trained 15 early-career scientists in using scuba diving as a tool for their research. The Scientific Diving Course was hosted at SMSFP in April and at STRI in May. The experiences have offered valuable insights and guidance to help enhance future sessions of the Smithsonian Scientific Diving Courses.

The courses were packed full of lectures, pool training sessions, rescue diver training, safe boating practices, scientific diver skills, safe diving practices, and much more. Collectively, divers logged 92 dives in pools and 205 open water dives during the training courses.



Douglas Schleiger



Laurie Penland

Central Dive Office Retirement

June 2025

Douglas Schleiger and Laurie Penland, both from the Central Diving Office, retired in June. Schleiger has 38 years diving experience during his careers with NOAA and the Smithsonian. He served as Smithsonian's Scientific Diving Safety Officer for over 11 years where he provided oversight to the SDP's activities. Penland worked as the Assistant Diving Safety Officer for 20 years and has vast experience in supporting scientific research, dive training, underwater photography, and diving in extreme cold.

Schleiger and Penland handed off the duties of their roles to current unit diving officers, Zach Foltz of the Smithsonian Marine Station – National Museum of Natural History, Raul De Leon of the Smithsonian Tropical Research Institute, and Emily Anderson of the Smithsonian Environmental Research Center. Foltz, De Leon, and Anderson bring extensive expertise from their roles to the Central Diving Office and are ensuring continuity of safety until the next Scientific Diving Safety Officer is on board. The Smithsonian thanks Schleiger and Penland for their service and commitment to safety and the structure and standardization they have brought to the Smithsonian Scientific Diving Program.

Mark your calendar



2026 Scientific Diving Course

The SDP will host a Scientific Diving Course from April 27 through May 8, 2026, location to be determined. This training is for scientists who need to utilize SCUBA diving for their research.

The course provides foundational training in scientific diving techniques and safety protocols.



April 2026

At the conclusion of the course, trainees will become certified scientific divers ready to conduct research underwater while on scuba.

If you are a Smithsonian employee, fellow, intern, contractor, or volunteer who needs to utilize SCUBA diving to conduct your research and are interested in the Scientific Diving Course, contact your Unit Diving Officer.

Upcoming Events



DEMA Show

November 2025

DEMA is the trade association for the international scuba diving industry and hosts the largest trade event in the world for scuba diving. This year the show is in Orlando, Florida. Zach Foltz, acting Scientific Diving Safety Officer, will attend to participate in training sessions, look at new technology and meet with industry leaders.

National Scientific Diving Day

November 22

November 22nd is National Scientific Diving Day! We're celebrating the amazing work and research that our scientists do while underwater. November is the anniversary of the scientific diving exemption from commercial diving regulations granted by the Occupational Safety and Health Administration (OSHA) in 1982.

Learn more about the history of scientific diving in the US [here](#)!



Important Reminders for Divers



Diving First Aid (DFA)

The SDCB recently reviewed the frequency for the diving first aid refresher. Divers are no longer required to complete the refresher course every year. The updated standard requires divers to complete a full Diving First Aid course every two years. The course will include online training, a full day classroom session, and real-life scenarios.

Log your dives

As we near the end of the year, now is the perfect time to make sure you have logged all of your dives. It is important to log your dives to ensure that you remain current and maintain your depth authorizations. It is also a great time to review your DECOStop profile to ensure that your information is current and up to date.

Submit your dive computers to your UDO or log your dives directly in DECOStop. If any of your dive plans were cancelled, be sure to let your UDO know.



Meet the Smithsonian Dive Control Board

The SDCB serves as the primary authority for all Smithsonian scientific diving operations. The SDCB ensures all SI scientific diving activities meet or exceed standards set forth by the American Academy of Underwater Sciences (AAUS); upholds the relevant SI policies; protects the safety of SI employees and other approved scientific divers participating in Smithsonian-led diving operations; and supports and advances underwater scientific research at the Smithsonian.

The SDCB is made up of voting and non-voting members. The majority of voting members must be active scientific divers and includes the Central Dive Office, Unit Dive Officers, and divers from the most active diving units. Non-voting members provide essential expertise in relevant areas.

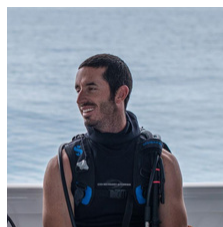


Valerie Paul
Chair, SMSFP

Dr. Valerie Paul has been the Director and Head Scientist of the Smithsonian Marine Station at Fort Pierce, Florida since 2002. She received her Ph.D. in Marine Biology in 1985 from the University of California San Diego, Scripps Institution of Oceanography, and then served on the faculty of the University of Guam Marine Laboratory from 1985-2002. She is the author or co-author of over 350 scientific research publications. Her ongoing research interests include marine cyanobacteria and algal blooms, coral reef ecology, marine chemical ecology and marine natural products.

Valerie serves as principal investigator of both the Indian River Lagoon, Florida and Carrie Bow Cay sites.

Acting Central Dive Office

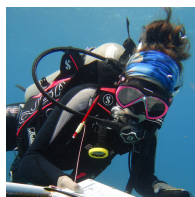


Zach Foltz
NMNH/SMSFP/CCRE

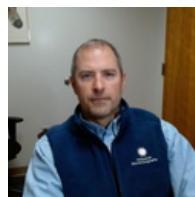


Raul De Leon
STRI

Unit Dive Officers



Emily Anderson
Secretary, SERC



Richard Quintero
NZCBI



Paul Johnston
NMAH



Lee Weigt
NMNH

Lee is the Director of NMNH's LAB (Laboratories of Analytical Biology). Lee started diving at STRI from 1988-1996 working on snapping shrimp and corals. Upon returning to SI in 2001, Lee co-founded the Global Genome Initiative, started the DNA Barcoding Program, helped with the NMNH ARMS program, and co-founded the Deep Reef Observation Project using a submersible in Curacao.

He contributed to the modification of ARMS for use with Fishes (FARMS) and has spent 20 years helping to build the DNA reference library for fish species. This effort began in the Caribbean and has since expanded globally. Much of this work has been supported by the methods and collaborations he developed in with the FDA through their Seafood Identification projects.

Meet the Smithsonian Dive Control Board



Gabrielle Miller
NMAAHC

Gabrielle Miller is a Program Specialist and Archaeologist for the Center for the Study of Global Slavery at the National Museum of African American History and Culture.

She engages archaeology as one of many tools that can be used to create a more holistic and representational narrative of the past to re-establish people of African descent as the authorities of their own narratives, especially in spaces of scientific inquiry.



Leah Harper
SERC

Leah Harper is a biologist for the MarineGEO program. Her focus is in coral reef and tropical seascape ecology. She coordinates MarineGEO's Reef Life Survey missions and has trained partners to survey fish and mobile invertebrates in eight different countries and counting.

She also dives regularly with partners to survey and sample corals to better understand coral health and community dynamics.



Mark Torchin
STRI

Mark Torchin has been a marine ecologist at STRI since 2004. His research focuses on coastal marine ecology, emphasizing host-parasite and consumer interactions, infectious diseases and biological invasions. He focuses on how trophic interactions such as parasitism and predation alter populations, community structure and ecosystems. His lab is working on biological invasions across tropical and temperate systems developing a global perspective on factors driving invasions.



Rich Wright
OSHEM

Rich is the director of the Office of Safety, Health, and Environmental Management (OSHEM). He has served in this position since 2014 and is responsible for the oversight and implementation of the safety, health, environmental management, and fire protection and life safety programs for the Smithsonian Institution.



Pam Krah
Dive Medical Officer, OHS

Dr. Pam Krah is the Associate Director for Occupational Health Services at the Smithsonian. She retired from the US Navy in 2024 following 33 years of service. Dr. Krah is board certified in occupational and environmental medicine and internal medicine.



Danielle Fisher
OGC

Danielle serves as Deputy General Counsel for Business Affairs in the Office of General Council. Danielle has been with the Smithsonian for over 10 years. Danielle's thoughtful counsel and collaborative approach have made her a trusted resource across Smithsonian diving units.

Scientific Diving Spotlight



Rohr Reef Resilience Program

Anabell Cornejo

The Rohr Reef Resilience Program (RRRP) recently completed its biannual reef monitoring in the Pacific waters off Panama. As part of the survey, the team collected small fragments of *Pocillopora* coral and produced detailed photomosaics — 3D models of the reef structure — across three sampling sites in the Gulf of Panama and four in the Gulf of Chiriquí.

Now entering its fifth year, the project continues to track reef health to better understand the impacts of rising ocean temperatures and large-scale climate events such as El Niño.



Photo Credit: Lisa Zimmerman

Scientific Diving Spotlight



June 2025

Indian River Lagoon Bioblitz

Holly Sweat

In June, 30 participants from institutions across the southeastern U.S. gathered at the Smithsonian Marine Station (SMS) to conduct the Ocean DNA Benthic BioBlitz. The event was led by Drs. Holly Sweat and Jessica Zehnpfennig from SMS, and Dr. Chris Meyer from the Smithsonian's National Museum of Natural History (NMNH) in Washington, D.C.

Surveying 32 sites from the Indian River Lagoon (IRL) and nearby waters, the team searched through scoops of sand to find tiny sediment-dwelling invertebrates called 'infauna' – biological 'needles in a haystack' that are used as indicators of ecosystem health. Over 700 species of worms, clams, and other infauna were collected from 32 sites in the IRL and nearby waters, catalogued, and prepared for DNA sequencing.

This huge effort was part of the NMNH Ocean DNA Initiative, which aims to use genetic data and innovative molecular tools to improve biodiversity surveys and environmental health assessments. In addition to boosting our genetic knowledge of these important and understudied species, the bioblitz unearthed many new records for the IRL estuary, including non-native species and some that are completely new to science!

The team is at the very beginning of their data analysis and will have more updates to come. In the meantime, check out this additional news coverage for more information and to see the scientists in action:

[A wildlife scavenger hunt: Scientists conduct 'bioblitz' to gauge health of Indian River Lagoon | The Invading Sea](#)

[Turner Participates in 'Benthic BioBlitz' in Indian River Lagoon to Catalog Bottom-Dwelling Species - Florida Tech News](#)



Resources for Divers



www.DiversAlertNetwork.org

The world's most recognized and respected dive safety organization, Divers Alert Network (DAN), has remained committed to the health and well-being of divers for 40 years. The organization's research, medical services and global-response programs create an extensive network that supports divers with vital services such as injury prevention, safety and educational programs and lifesaving evacuations.

The SI Scientific Diving Program works with DAN to provide our divers training in First Aid, CPR, AED, Emergency Oxygen Administration, and more.



AAUS

www.aaus.org

The American Academy of Underwater Sciences is a non-profit, self-regulating organization dedicated to establishing and maintaining standards and safe practices for scientific diving. Its mission is to advance and support safe, productive scientific diving across the research community.

The SI Scientific Diving Program works closely with AAUS to develop, maintain, and update our diving safety manual, as well as our training practices and standards. AAUS includes more than 140 organizational members, many of which collaborate regularly with the Smithsonian.

If you're facing challenges related to diving methods, gear, or equipment, please reach out to your DSO. They can connect with the broader AAUS community to seek guidance, share best practices, and find solutions.



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dive.si.edu
decostop.si.edu