



E-SLATE

American Academy of Underwater Sciences (AAUS)

EDITORIAL NOTE –September 2017

Welcome to the September E-Slate. In this edition, we remember Dr. Morgan Wells, conduct last call for symposium registration and print raffle, announce the Kevin Flanagan Travel awardees, post the first draft of the standards manual rewrite and much more. We welcome news, announcements, job postings, program highlights and images of underwater work at aaus@disl.org.

NEWS/ANNOUNCEMENTS

Dr. J. Morgan Wells (1940-2017)



Dr. Morgan Wells, a pioneer in the diving world and founding director of the NOAA Diving Program, passed away on July 28, 2017. He will be remembered fondly by his colleagues at NOAA and in the diving community.

Dr. Wells was best known for developing the NOAA Nitrox I (32% O₂/N₂) and II (36% O₂/N₂) mixtures and their respective decompression tables in the late 1970s. Thanks to his research and testing efforts, these mixtures are now widely used in the scientific and recreational diving communities. He later developed NOAA Trimix I, a mixture of oxygen, helium, and nitrogen used in deep diving. Aside from his breakthroughs in breathing gas mixtures, he was also known for conducting research in undersea habitats, where people, known as aquanauts, can live for extended periods of time. Dr. Wells has been credited with having spent more time living on the ocean floor as an aquanaut, and having lived in more habitats than any diver on the planet.

Dr. Wells began working at NOAA soon after NOAA was established in 1970. Starting in 1971, NOAA Diving was overseen by the Manned Undersea Science and Technology Office, where Dr. Wells served as science coordinator from 1972 until 1975. His duties included coordinating and conducting undersea research with scientists from around the globe. In 1975 he was appointed NOAA Diving Coordinator, where he was responsible for all aspects of NOAA's diving training, safety, and effectiveness.

When the NOAA Diving Program was created in 1978, he was appointed director, maintaining his duties as NOAA Diving Coordinator and assuming the administrative duties of the Director. In 1989 Dr. Wells achieved his career-long ambition of creating the NOAA Experimental Diving Unit (EDU). He happily left the Washington, DC area for the new NOAA EDU, which was housed at the U.S. Army Diving Detachment at Fort Eustis, VA.

Dr. Wells' early research interests were centered on the respiration of marine organisms as related to temperature and oxygen concentration. He used undersea habitats and diving frequently for studies of symbiotic systems of algae and invertebrates (corals, giant clams, sea anemones). His Ph.D. dissertation research was on the effects of pressure on human hemoglobin oxygen binding properties. He then studied the effects of elevated nitrogen pressure on the oxygen binding properties of hemoglobin of humans and deep diving seals, which eventually led him to the development of Nitrox and Trimix breathing mixtures that benefited all divers.

Dr. Wells' most recent work (1995-1996) was related to gas separation technology and low energy consumption life support systems for long term undersea habitation.

His many contributions and his ever inquiring mind will continue to inspire and benefit the progress of diving physiology, the pursuit of scientific research underwater, and the diving community at large.

Excerpts from

<https://www.oma.noaa.gov/find/media/articles/2017-08-03/dr-j-morgan-wells-1940-2017>

Photo: NOAA Archives

AAUS Standards Manual Update

The Standards manual committee met in August and completed the first draft of a complete AAUS standards manual update. This draft is available [here](#).

The committee is requesting AAUS membership review this effort and be prepared for discussion at the annual symposium. Additionally, there is a comment form online for those unable to attend the meeting. The working draft will be posted throughout the month of September. The committee will then produce a final draft, likely in late fall, to be posted for a 60 day membership review period.

2017 AAUS Diving for Science Symposium

Last call for the 2017 AAUS Diving for Science Symposium, hosted by Thunder Bay National Marine Sanctuary! The meeting will be held in Alpena, MI from September 12-16, 2017. We welcome diving scientists, students, diving safety officers and anyone with an interest in diving science to participate in this event. Full schedule, course descriptions, lodging information and registration at:



<https://www.regonline.com/2017aausdivingforscience>

The Wreck of the Nordmeer by Mick Grochowski



This beautiful print will be raffled off to support the AAUS Foundation scholarship program on September 16th. You do NOT have to be present to win! **For every \$10 donation made at www.aausfoundation.org between August 1st and September 15th, you will receive one entry.** You may also contact the AAUS office or purchase tickets at the event.

2017 AAUS Kevin Flanagan Travel Award

The 2017 Kevin Flanagan travel award winners are Erika Sawicki, University of New England and Elisabeth Maxwell, University of Maine.

Elisabeth was born and raised in Southeast Texas where she developed a love for being on and in water (both fresh and salty). She earned her Open Water certification in 2011 prior to traveling to South Africa for an internship.



In 2012 she participated in a research project on manta rays in Mozambique where she developed her diving and underwater sampling skills and gained experience conducting research in a remote environment. After completing a bachelors degree in biology at Lamar University (Beaumont, TX), Elisabeth was accepted to the dual-degree masters program at the University of Maine where she studied both marine biology and marine policy. During her time at UMaine, Elisabeth was able to advance her diving certifications to include Advanced Open Water (PADI), Rescue Diver (SDI), and Science Diver (AAUS). She is currently working towards her PADI Divemaster certification and looks forward to a long career of science and diving.



Erika L. Sawicki from Wilbraham, MA graduated from the University of New England in May 2017 with a BA in Ocean Studies & Marine Affairs and a BS degree in Environmental Science. Erika discovered her passion for diving and marine ecosystems when she attended the Florida National High Adventure Sea Base in 2012. This was the beginning of an amazing adventure of a lifetime and when her love of diving began. In 2015, she became a Rescue Diver, Deep Diver Specialty, Search and Recovery Diver Specialty, and a PADI Dive Master. Erika spent the summer of 2016 working as a Dive Master at Sea Base, where she led several Boy Scout troops and their leaders on dives. While working at Sea Base, Erika gained experience conducting fish count surveys that were completed weekly for the Reef Environmental Education Foundation (REEF). Erika spent this summer as the Dr. Lee H. Somers AAUS Scientific Diving Intern.

The Kevin Flanagan Student Travel Award is a competitive award developed to support the professional development of students engaged in diving science or the study of diving science. The award was created in memory of Kevin Flanagan (1970-2012), an AAUS board member (2009-2011) and diving safety officer (1998-2012). Donations to fund this award can be given at www.aausfoundation.org. Join us in our efforts to honor Kevin and provide students with much needed travel funds.

2017 Dr. Nancy Foster Scholarship

NOAA's Office of National Marine Sanctuaries has selected three graduate students as recipients of the Dr. Nancy Foster Scholarship, representing graduate-level areas of study such as marine biology, oceanography and maritime archaeology. The scholarship recognizes outstanding academics and encourages independent graduate level research, particularly by female and minority students.

The three scholarship recipients for 2017 are: Samara Haver, Oregon State University; Nissa Kreidler, Humboldt State University; and Anna Robucks, University of Rhode Island. More information is available at <https://sanctuaries.noaa.gov/news/press/2017/students-selected-for-2017-noaa-scholarship-honoring-dr-nancy-foster.html>

STUDENT OPPORTUNITIES

University of Alaska Southeast Dive Semester

Students interested in fisheries, diving, and marine biology, can round out their studies with a field-based program in Sitka, Alaska in the Spring of 2018 (January 14 - May 5). Students will have the opportunity to work with UAS faculty and become accomplished research divers. Over the semester, students will learn everything from basic dive skills and underwater rescue procedures to underwater data collection techniques and will become familiar with local fish and invertebrate species while participating in new and ongoing marine-related research projects. Additionally, students will develop skills in basic skiff handling and small engine maintenance techniques. For more information, visit <http://divesemester.alaska.edu/> or contact Dr. Reid Brewer at 907-747-7799.

NOAA Graduate Student Internship Opportunities

The NOAA Office of Education seeks applicants for 10 week to 12 month paid internship opportunities for graduate students to develop professional skills while conducting projects in research, resource management or operations. Students are fully funded by NOAA's Office of Education or the National Science Foundation (NSF). Graduate student internships are available through two programs:

- 1) NOAA's Educational Partnership Program with Minority Serving Institutions - <http://bit.ly/2fQ0okf>
- 2) The NSF Graduate Research Internship Program - <http://bit.ly/2qTz3kK>

Three Seas Program

Northeastern University's Three Seas Program is currently accepting applications for the Undergraduate Spring 2018 cohort. The Three Seas Program is a year-long field immersion experience focusing heavily marine sciences and subtidal research. Three Seas students learn the basics of underwater research through AAUS before being immersed in three distinct ecosystems over the course of two academic

semesters. More information is available at <http://www.northeastern.edu/cos/threeseas> or by emailing the Three Seas Program Manager and Diving Safety Officer, Liz Bentley Magee (e.magee@northeastern.edu).

UPCOMING EVENTS

Scientific Diving in Germany, Europe and Beyond

The 10th international KFT symposium will take place from November 2-3, 2017 in Bremerhaven and is collaboratively organized by the Alfred-Wegener-Institute Helmholtz Centre of Polar and Marine Research (AWI/Bremerhaven), the Leibniz Centre for Tropical Marine Research (ZMT/Bremen) and the Deutsches Schifffahrts museum (DSM/Bremerhaven). The Symposium will emphasize international reciprocity, innovative methods in aquatic research, and capacity development – forward-thinking implementation of German/European standards abroad. More information and registration at <http://www.forschungstauchen-deutschland.de/>

Yale Sustainability Leadership Forum

From Environment to Sustainability, Megatrends of the 21st Century will be hosted by Yale University, September 12-15, 2017. The Yale Sustainability Leadership Forum is an intense program exploring sustainability as an overarching framework for life in the 21st century. An integrated policy concept, sustainability diverges from approaches to environmental protection and economic development that were pursued in the 20th century. For more information, visit <https://sustainability-forum.yale.edu/>

JOB ANNOUNCEMENTS

Full information and application instructions for the following jobs can be found at www.aaus.org/job_board

Boston University

Dive Safety Program Manager

Shedd Aquarium

Dive Program Manager

University of Hawaii

Associate Professor

The mission of the American Academy of Underwater Sciences is to facilitate the development of safe and productive scientific divers through education, research, advocacy, and the advancement of standards for scientific diving practices, certifications, & operations.

American Academy of Underwater Sciences
PO Box 9067, Mobile, AL 36691-9067
Tel 251- 591- 3775
aaus@disl.org www.aaus.org

Editor: Heather Albright- aaus@disl.org
Editorial Board: Michael Dardeau,
Amy Moran, Rick Riera-Gomez

AAUS BOARD OF DIRECTORS

Rick Riera-Gomez	President
Marc Slattery	President-Elect
Chris Ledford	Secretary
Christopher Rigaud	Treasurer
Jen Smith	Director-at-Large, Scholarship
Narineh Nazarian	Appointed Director (AD), Membership
Mike Anghera	Director-at-Large
Vin Malkoski	AD, Finance
Liz Kintzing	AD, Standards
Tim White	AD, Statistics
Jim Hayward	Director-at-Large