



# E-SLATE

## American Academy of Underwater Sciences (AAUS)

### EDITORIAL BOARD NOTE – May 2011

Welcome to the May issue of the *E-Slate*. The 2011 AAUS Board of Director's Election begins this month. Be sure to read about each candidate below before voting. Also, 2010 statistics are due no later than June 30, 2011.

Please continue to submit news, announcements, job postings, and images of underwater work to [aaus@disl.org](mailto:aaus@disl.org). Current and past issues of the *E-Slate* are available at [www.aaus.org](http://www.aaus.org).

### NEWS/ANNOUNCEMENTS

#### Sherry Reed to Join WDHOFF as Vice-President

Former AAUS BOD Member Sherry Reed, research biologist and scientific Diving Safety Officer at the Smithsonian Marine Station at Fort Pierce was voted as Vice-President to join the Board of Directors of the prestigious international Women Divers Hall of Fame (WDHOFF). She was inducted into WDHOFF in 2002 as the first female scientific diving officer in the U.S. WDHOFF is an international society with 186 members who are the leaders, pioneers, and record setting champions in every sector of the diving community, including science and technology, deep sea exploration, marine archeology, dive medicine, military diving, commercial diving, dive safety, media, arts, education, and conservation. Members include Navy Commander (ret.) Darlene Iskra, first woman to command a commissioned vessel, and USN Captain (ret.) Bobby Scholley, who led the salvage of the USS *Cole* and USS *Monitor* Civil War shipwreck using saturation mixed-gas bell diving. An important focus is the WDHOFF Scholarship Program which has become a welcome source of scholarships for both men and women of all ages who



wish to pursue higher education and training to further their career goals. The WDHOFF members were guest celebrities at the 2011 Beneath the Sea Exposition in Secaucus, NJ. Mentors for the exposition included Jean-Michelle Cousteau, Sylvia Earle, and film makers such as Stan Waterman (*The Deep*) and Feodor Pitcairn who showed film clips of their new undersea documentaries.

#### AAUS Symposium Update

OM Poster Reception - Friday, October 14

The 2011 AAUS scientific meeting will include an opportunity for organizational members (OMs) to highlight their scientific diving programs and underwater research activities through a poster session/reception at the Gulf of Maine Research Institute. Several common elements should be incorporated: scientific diving program background, structure, DCB members, notable accomplishments, course offerings, operational strengths, and underwater research highlights. We encourage all OMs to take advantage of this opportunity to showcase individual programs. PDFs of presented posters will be made available on the AAUS website and in future editions of the *E-Slate*. There is no cost for this event, but registration is required if you plan to present (<http://guest.event.com/d/ydggkt>). Poster guidelines and samples will be provided in the next *E-Slate* issue.

#### Lodging for the 2011 Symposium

Please note that pre-symposium meetings and workshops (October 10-12) will be held at Darling Marine Center (DMC). Driving time from Portland to the DMC is about 90 minutes. Most attendees will likely prefer to arrange housing for DMC-based events through DMC or surrounding Inns. AAUS events do not begin in Portland until October 13. The AAUS group rate at the Portland Regency is only available Wednesday-Sunday (October 12-16). Bookings at Portland Regency outside of these dates will be at the regular retail price.

#### AAUS Statistics Due

The deadline for 2010 statistics is June 30, 2011. AAUS has a new URL (<http://stats.diveaaus.org>) and a new look to the stats entry page. By logging in, you can enter your stats and review, not only your previous OM numbers but all AAUS summary statistics as well. If you have any questions about AAUS data collection criteria, please review the AAUS Statistics Collection Criteria and Definitions available at the site or contact Mike Dardeau ([mdardeau@disl.org](mailto:mdardeau@disl.org)) directly.

## Call for Abstracts – AAUS 2011

Abstracts (150-250 words) for the upcoming AAUS symposium can be submitted until June 01. As discussed in the February 2011 *E-Slate*, the minimum manuscript obligation has changed from full papers to extended abstracts (800-1200 words). Note: longer manuscripts can be submitted if authors prefer. The deadline for final extended abstract or manuscript is August 01. The published proceedings will be available at the fall meeting. Details on the AAUS website (<http://www.aaus.org>).

## AAUS 2011 ELECTION - CANDIDATE Q&A

The 2011 AAUS election opens May 1 and closes June 30. This year the academy will elect a President-Elect, a Director-at-Large and a Secretary. The terms of all three candidates will start on January 1, 2012. The President-Elect will serve a two-year term followed by a two-year term as President. The Director-at-Large will serve a three-year term and the Secretary will serve a two-year term. The election is open to Full Voting Members (individual and OM Reps) in good standing (dues paid, etc.). Ballots are accessed via the AAUS website, [www.aaus.org](http://www.aaus.org), by logging into your individual account, highlighting 'Community', selecting 'Polls', and clicking on '2011 AAUS BOD Election'. To write in a candidate for any office send an e-mail with the name of the candidate and position for which you are voting to [jeff.godfrey@uconn.edu](mailto:jeff.godfrey@uconn.edu). Candidates were required to submit a biographical sketch or curriculum vitae and answer the following three questions.

- 1) In your vision, in what direction should AAUS be headed in the next decade? (Maximum 300 words)
- 2) Rank in order of importance the six focus areas listed in the AAUS Strategic Plan for 2008 through 2011 (administration, credibility, membership services, scholarship, standards & training, and statistics), provide comment on the items listed under each area, and describe a goal and strategy for meeting your top three ranked focus areas. (Maximum 600 words)
- 3) What relationships/networks/professional contacts/nonprofit board experiences do you have that will benefit AAUS by having you on the AAUS BOD? (Maximum 300 words)

The Academy thanks the candidates for their willingness to serve the scientific diving community. Candidate biographies and answers to the election questions follow.

## PRESIDENT-ELECT CANDIDATES

### AMY L. MORAN

Department of Biological Sciences, Clemson University  
Clemson, SC  
864-508-2202; [moran@clemson.edu](mailto:moran@clemson.edu)

Amy began a career in science diving in 1992 as a graduate student at the Oregon Institute of Marine Biology where she worked from 1992-1997. After receiving a PhD in Biology in 1997 for her work on life history evolution of marine invertebrates, she moved to a two-year Postdoctoral Fellowship at the Friday Harbor Laboratories, a short-term Fellowship at the Smithsonian Tropical Research Institute, and then a two-year Postdoctoral Fellowship at the Wrigley Institute for Environmental Studies on Catalina Island. In 2002 Amy moved to a Research Faculty position in the Department of Marine Sciences at the University of North Carolina-Chapel Hill and their Marine Institute in Morehead City, NC, followed by a move in 2005 to her current position at Clemson University where she is a now an Associate Professor of Biological Sciences. Amy serves on the Board of Directors of AAUS as the chair of the Statistics Committee and was an invited speaker at the Smithsonian/NSF/National Academy of Sciences' "Revolutions in Science through Scuba" symposium in 2010. She has also been involved in numerous professional scientific activities and Boards. She is currently an elected member of the Executive Committee and the Student Support Committee of the Society of Integrative and Comparative Biologists (SICB), and is on the Editorial Board of the journal *Invertebrate Biology*. In the past Amy has served on the Program Committee for SICB, served on the Steering and Organizing committees for the NSF-funded panel on Evolution and Climate Change in the Ocean (ECCO), been President and Vice-President of the Clemson chapter of Sigma Xi, has co-organized symposia on Antarctic Marine Biology (SICB 2010) and Marine Life Cycles (SICB 2007), participated in numerous grant panels at the National Science Foundation, and regularly reviews for journals such as *Ecology*, *Evolution*, *Oecologia*, *Marine Biology*, *Journal of Experimental Marine Biology and Ecology*, *Marine Ecology Progress Series*, *Limnology and Oceanography*, *Physiological and Biochemical Zoology*. Amy's science diving projects include over 100 dives in an overhead environment with the United States Antarctic Program at McMurdo Station, cold-water diving in New Zealand, Canada, and the Pacific Northwest, and extensive warm-water diving at the Smithsonian Tropical Research Institute's marine stations in Panama and Belize. Her science diving has resulted in publications in major scientific journals such as *Nature*, *Evolution*, *Ecology*, *Marine Biology*, and the *Proceedings of the Royal Society of London*, and her work has been featured in major media outlets including the *Today Show* and the *NBC Nightly*

News. Amy's research has been continuously funded by grants from the National Science Foundation (programs in Polar Biology and Medicine and Biological Oceanography) since 2004.

**In your vision, in what direction should the AAUS be heading in the next decade?**

Over the last decades, the breadth organizations engaged in scientific diving has been constantly expanding. The original Organizational Members were universities or research institutes where a critical mass of scientists needed safe, experienced, and trained divers to engage in underwater research on scuba, but an increasing number of OMs today are institutions with more diverse goals such as aquaria, contractual environmental companies, educational groups, and NGOs. This diversification expands the role of the Academy, and one major direction of AAUS in the next decade will be engaging the BOD, OMs, and individual members in potentially redefining our model of scientific diving while simultaneously staying true to the mission of AAUS to "facilitate the development of safe and productive scientific divers through education, research, advocacy, and the advancement of standards for scientific diving practices, certifications, and operations." Models of scientific diving procedure will need to be developed in the context of the scientific community's support needs for its diving programs, so will require increased participation of underwater scientists on the board of directors and operating committees. AAUS is also a leader in diving safety research and our data-gathering and processing ability has increased greatly with the new statistics database system. These data need to be mined for information and patterns, published, and properly archived to statistics and data gathered by AAUS should be used to promote scientific diving in general, and to help foster creative, entrepreneurial, and sponsored-funding based projects to meet the needs of the Academy.

**Rank in order of importance the six focus areas listed in the AAUS Strategic Plan for 2008 through 2011 (administration, credibility, membership services, scholarship, standards & training, and statistics), provide comment on the items listed under each area, and describe a goal and strategy for meeting your top three ranked focus areas.**

In order of importance I rank credibility, statistics, and standards and training.

**Credibility:**

Stronger links and better communication between underwater scientists and the DO population should be fostered to ensure that AAUS continues to meet the needs of the scientific community going forward. Increased involvement of research scientists on the Board of Directors and on standing committees and

the working underwater scientists is key; increasing the participation of research scientists at the annual meeting also needs to be facilitated, both to enhance the scientific content of the meetings and to increase communication between the two groups. I will work to establish a standing committee for meetings and publications and to arrange activities such as topical research symposia for the annual meeting to attract the scientific community. Outreach by AAUS at international, ocean-related scientific meetings, such as a presence at poster and vendor sessions, would also be an effective means of increasing our visibility. Because of the international and interdisciplinary nature of scientific collaborations, AAUS, which brings together diverse scientists and institutions from many countries, is poised to be a global international leader. Developing a strong plan for outreach and networking with national and international ocean-related organizations would open many doors for AAUS and its members. Expanding AAUS support for these activities though establishing a fund base is an important goal as well. Another important issue relates to quality control and uniformity of the application of AAUS standards across OMs. Currently there is no functioning mechanism in place for evaluating or ensuring compliance with minimum AAUS standards, which potentially compromises credibility, liability, and safety, as well as confidence in establishing reciprocity among institutions. A quality assurance program based on the non-onerous systems that have been developed in other science communities would be a key component to improving the effectiveness of AAUS guidelines.

**Statistics:**

With the recent establishment of a new statistics database, we will be able to streamline data collection into a more uniform collections format; these data should be made freely available to OMs in an organized and intuitive interface, and securely archived for the future. Likewise, a standing committee to clarify and define important data categories (i.e., "incident") would improve the experience of DSOs and scientists while bringing our data collection and formats closer to standardized, OSHA-recognized criteria.

**Standards and training:**

In agreement with many current members of the Board of Directors, I feel that the AAUS standards are too detailed and verbose. The standards should be edited, clarified, and in particular shortened; this will increase the readability of the standards as well as the probability that they will be read, which will facilitate compliance and reduce OM's potential for liability.

**What relationships/networks/professional contacts/non-profit board experiences do you have that will benefit AAUS by having you on the AAUS BOD?**

**Administrative/Programmatic:**

Member of the Dive Control Board for the National Science Foundation's Office of Polar Programs; Statistics Director for the American Academy of Underwater Scientists (2011- ). Member-at-Large of the Executive Committee of the Society of Integrative and Comparative Biologists (2011-); member of the Program Committee (2006-2009) and Student Support Committee (2010-) of same. President (2009) and Vice-President (2008) of the Clemson chapter of Sigma Xi, the Scientific Honor Society. Co-organizer and participant, NSF-funded ECCO (Evolution and Climate Change in the Oceans) working group and panel (2009-2010). Panelist for NSF grant review boards in Biosciences, Geosciences, and the Graduate Research Fellowship program.

**Scientific:**

Associate professor of Biological Sciences at Clemson University (2005-present) and Research Professor at UNC-Chapel Hill (2002-2005); instructor for college courses in Marine Biology, Invertebrate Biology, and Polar Biology. Postdoctoral fellowships at the Friday Harbor Laboratories, the Wrigley Marine Science Institute, and the Smithsonian Tropical Research Institute. NSF-funded multi-year underwater science diving projects at the Smithsonian Tropical Research Institute and at McMurdo Station, Antarctica; science diving at the University of Oregon, University of Washington, and at multiple sites around the Caribbean, the tropical Eastern Pacific, and New Zealand. Invited research presentations in forums such as the symposium on Antarctic Biology at the 2010 SICB meetings and the "Research and Discoveries: The Revolution of Science through Scuba" symposium funded by the Smithsonian/NSF/National Academy of Sciences in 2010. Grant support from NSF, NOAA, and the Smithsonian.

**PHILLIP LOBEL**

Professor of Biology / Scientific Diving Officer  
Boston University  
617-358-4586; [plobel@bu.edu](mailto:plobel@bu.edu)

Phil Lobel is a Professor of Biology (Ichthyology) in the Boston University Marine Program. He teaches courses in ichthyology, marine science and scientific diving and takes his students to field sites in Belize. He learned to dive in Lake Erie and the Florida keys in the mid 1960s. Phil was an undergraduate at the University of Hawaii (1971-1975) during which time he worked during school vacations as the assistant lab manager at UH's Enewetak Atoll Marine Lab and at the lab on Fanning Atoll. His primary job at

Enewetak was serving as a dive buddy for famous scientists and "riding shotgun" with a McNair powerhead for protection from sharks (that was a long time ago!). Phil attended graduate school at Harvard University, (1975-1979); his dissertation, on the ecology of herbivorous fishes, was based on field research at St Croix, San Blas Islands (Panama) and at Fanning Atoll. He was a Post-Doctoral Fellow in Oceanography, Center for Earth & Planetary Physics, Harvard, (1980-83) and returned to Hawaii to study ocean currents and fish spawning and larval dispersal patterns with support from NSF. His field research involved hundreds of hours underwater, often alone in very remote locations. Phil was an Aquanaut twice (1980 & 82) in the old Hydrolab at St. Croix. He was at the Woods Hole Oceanographic Inst. (1984-94) prior to joining the BUMP program. Phil was chief scientist for the Department of Defense marine ecological program at Johnston Atoll, Pacific from 1983 to 2003. During this time, he led the research team that evaluated the impact on the marine environment from the US Army's prototype facility for the destruction of chemical weapons (i.e., nerve and mustard gases) and from historical "agent orange" and nuclear weapons fallout. The lessons learned from this project were transferred to the training of US Navy and Coast Guard divers and in developing the policy for the Department of Defense stewardship of coral reefs. His professional expertise beyond ichthyology includes the practical sea-going aspects of conducting underwater science and physical oceanography. He has been a scientific diver since 1971, is a NAUI Scuba instructor, a DAN Instructor and currently serves as the Boston University Diving Safety Officer. He has been authorized as a NOAA Working Diver, Navy and Coast Guard diver. In 2010, he was awarded SSI's Platinum-Pro card for 7500 or more logged dives. Phil's research topics include basic marine ecology, bioacoustics, fish behavior and evolution as well as investigations into the adverse ecological impacts resulting from contaminants (e.g. dioxins, PCBs, heavy metals), over-fishing and physical disturbance. He has served as an expert consultant to several US Government Agencies and major corporations on aspects of maritime operations and underwater hazardous issues. Phil has published about 134 scientific publications in peer-reviewed journals, a book and a variety of popular publications and technical reports. He has served as an appointed board member for AAUS and as Chairperson for the statistics committee (2008-2010).

For additional information see

[http://www.bu.edu/biology/Faculty\\_Staff/plobel.html](http://www.bu.edu/biology/Faculty_Staff/plobel.html)

DoD Coral Reef Protection Implementation Plan

<http://handle.dtic.mil/100.2/ADA410910>

*SCRUMP - the music video with Phil and Fishes*

<http://www.youtube.com/watch?v=4ebjtxqbil0>

**In your vision, in what direction should the AAUS be heading in the next decade?**

During the last several years that I have been an active AAUS member (and as a Board member for 2 years), I have seen how AAUS as an organization has wrestled with the issues of membership, organizational purposes and how we as society of scientific divers have to cope with new regulations and concerns for diving safety. The future of AAUS will depend on how this organization is able to communicate the importance of scientific diving and training as an essential component of underwater academic research. As such, AAUS must become better recognized as the organizational authority to the chief administrators at US universities and other educational institutions for setting standards and practices. One of the most important aspects of this is the "Letter of Reciprocity". We need to be concerned that our community is trained to the same standards and that we can trust the level of training endorsed by organizational member institutions. This is critical for facilitating scientific research collaborations. At the core of this effort is for AAUS to help empower the institutional DSO within their own institution. This involves helping to communicate to the OMs academic leadership why scientific dive training and maintenance of skills are important and to help ensure that DSOs are provided with the resources needed to do this job. I believe this effort is part of the "institutional accreditation" process and "DSO certification" that has been hotly discussed during the past few annual meetings. We need to keep moving in this direction. I know that there is often a tension between diving scientists and the DSOs at their home institution. No smart and successful academic wants to be told what to do and how to do it. I believe AAUS has a key role in bridging the gap between the working diving scientist and the DSO. We need to help the scientist come to grips with the realities of existing and emerging regulations (this is happening in many facets of academic life; one just needs to see how animal care has moved from in-house IACUC to AAALAC standards). Maintaining training and diving standards is important in this regard. I also see the future will require an institutional accreditation process so that the institution's higher administration will take scientific dive programs seriously (again this is a trajectory we see in animal care and the new AAALAC certification). While we all may hate burdensome bureaucracy and added rules, this is an inevitable movement in today's society. AAUS should become the clearly recognized spokes-organization for scientific diving interests to the national funding agencies and other organizations. Hopefully, AAUS will be able to lead the way with a rational approach and manageable guidelines. To do this, we need to involve both DSOs and working scientific divers. AAUS is currently well attended by the DSO

community and we need to reach out and involve more diving scientists/professors to help in the process.

**Rank in order of importance the six focus areas listed in the AAUS Strategic Plan for 2008 through 2011 (administration, credibility, membership services, scholarship, standards & training, and statistics), provide comment on the items listed under each area, and describe a goal and strategy for meeting your top three ranked focus areas.**

**Standards and Training:**

This is the main purpose and role of AAUS, in my opinion. There is a need for the development of the institutional accreditation and compliance program and for the DSO certification program. I know AAUS is already moving in this direction and I would do my best to keep this momentum moving forward. AAUS must be in control of scientific diving standards so that we can manage changes and continue with realistic practices based on our experiences as DSOs and diving scientists. If we do not, we run the risk of some other agency controlling our business and dive lives.

**Credibility & Statistics:**

I believe statistics and credibility are intertwined. The safety record of AAUS OMs demonstrates the effectiveness of our program and methods. The documented safety record is what gives AAUS its credibility as an organization for setting the best management practices when operating a scientific dive program. However, all OMs must comply with timely submission of statistics. The new online websites that AAUS is developing is key to this development and the web program development is a priority for continuation.

**Administrative, scholarship, member services:**

The expanding role of AAUS as a national organization will require additional funding for administrative staff and to supplement costs for the annual meeting. I would work to develop funding proposal(s) to the NSF, ONR & NOAA to support the formal institutionalization of AAUS. I envision that AAUS would become akin to the UNOLs organization and would similarly be supported by the national funding agencies.

My background as a diving scientist for the past 40 years and having written many successful research proposals with funding from ONR, NSF, NOAA, Seagrant and other federal and private agencies will be helpful as we draft the AAUS proposal and represent our goals to the agencies. I also would expect AAUS to earn additional income from the institutional accreditation program. Both sources would help to alleviate the financial burden now being borne solely from organizational member dues. I am on the Board of Directors for the new AAUS Foundation, which is being established specifically for being able to receive

tax-deductible donations. While the emphasis for the AAUS foundation will be on scholarships, it is not limited to this. It can also support other AAUS projects as well. Overall, I think we should work to reduce organizational dues *per se* to make membership more attractive to smaller educational organizations. I would like to see the costs for our annual meetings subsidized with outside funding so that more DSOs can attend. We also need to attract the main core of everyday diving scientists back to the AAUS annual meetings in order to facilitate dialog with DSOs. Our annual meetings should have a mix of both DSOs and scientists in order to best represent our community.

**What relationships/networks/professional contacts/non-profit board experiences do you have that will benefit AAUS by having you on the AAUS BOD?**

I am a Professor of Marine Biology and Boston University's Diving Safety Officer. I am also a NAUI and DAN instructor. I would bring the combination of my experiences as a longtime underwater scientist and as the one who built the dive safety program for BU to help AAUS bridge the chasm between diving scientists and DSOs. I have the experience and perspective to encourage a constructive dialog and bring both sides together.

I am also a stage in my career when I can devote the time to AAUS that is needed for its further development. I am a senior Professor with a well-established research program and track record. I no longer have to spend excessive time writing and applying for myriad grant possibilities. My university teaching is entirely concentrated during November thru December annually. This gives me the "free" time during the rest of the year to pursue my research and interests.

**Admin/programmatic:**

I have been a marine scientist and academic professor since 1984. I currently also function as the DSO for Boston University. Thus, I have been participated in various administrative responsibilities within an academic institution for the past 27 years. I was also director of the Department of Defense marine ecological laboratory on Johnston Atoll, Central Pacific Ocean from 1993 to 2003. As one can imagine, the challenge of operating a marine laboratory at a remote facility that was imbedded in a high security military facility has a broad range of administrative challenges. These included the daily aspects of running scientific diving operations as well as funding, personnel management and transport logistics. I have served on the AAUS board for 2 years (2008-2010). I have been a consultant to US government agencies and private corporations. I have also operated a company that manufactured hydrophones for the commercial market (BioAcoustics Inc). I have a perspective that is based upon my decades of experiences as an academic

who has also operated a business and who has worked intimately government agencies.

**Scientific:**

I have been an active marine scientist for my whole adult life. Over the years, I have met and worked with many of who are now today's leading marine scientists. I have my roots as an undergraduate from the University of Hawaii (1971-1975). I matured as a graduate student in Biology at Harvard (1975-1979, I was a student with the late Karel Liem and Ken Sebens, took classes from Jane Lubchenco and was one of Jane's first graduate student field assistants). I became a seasoned oceanographer as a post-doc with the late AR Robinson at Harvard's Center for Earth and Planetary Physics (1979-1983). I spent several years as a scientist at the Woods Hole Oceanographic Institution before being hired with tenure as an Associate Professor at Boston University in 1994. I have led numerous scientific field expeditions to remote locations worldwide. I have also served on many scientific committees and on the editorial board of two scientific journals. I have taught field courses on coral reef ecology for the past 30 years as part of the East-West Program (Northeastern U), Discovery Bay Marine Lab (Jamaica) and the Boston University Marine Program (in Belize). All of this results in a lifetime of contacts in the underwater science community worldwide. Many of my former students now have roles in government and other academic institutions worldwide.

**Fiduciary:**

I have been the principal investigator on more than 35 funded research grants totaling more than several millions of dollars. These grants have been from many types of agencies and organizations including the NSF, ONR, Dept of Army, Army Corps of Engineers, the DoD Legacy Program, NOAA, Seagrant, National Geographic, Mellon Foundation, New England Biolabs Foundation, Island Foundation, World Wildlife Fund, Conservation International, and others.

**RICK RIERA-GOMEZ**

Diving Safety Officer

University of Miami /RSMAS Diving Safety Officer

Growing up in Miami made it easy for me to learn to love the water. I was originally certified to dive in 1981. My diving experience was recreational until 1990 when I took on a lab technician position at the Caribbean Marine Research Center (CMRC), a NURP facility in the Bahamas. There I did hundreds of dives as a lab tech and as fate should have it changed directions and found myself working as an interim DSO. The DSO responsibilities started off as a short-term appointment and turned into an 18 month position. While at CMRC I gained a lot of

experience in scientific diving but due to the remote location, I was unable to get the credentials to match my experience. So, at the end of 1992, I left CMRC and moved back to the States to get the training and credentials needed to be a DSO.

While working on my credentials I took a job at the Miami Seaquarium. There I learned about occupational diving and realized the differences between scientific and commercial diving. During this time I got all the training I needed and then applied for and was given the DSO position at the University of Miami/Miami Rosenstiel School of Marine and Atmospheric Sciences (RSMAS).

I have been the scientific diving officer for the University of Miami/RSMAS since 1994. My diving background includes a wide variety of experience including: underwater data collection techniques and scientific methodologies for just about all the science disciplines, mixed gas and decompression diving, cave diving, saturation diving and rebreather diving. My training includes many instructor and teaching credentials as well as certification as a diver medic and hyperbaric technician. Personally speaking, I live in Coral Gables with Betsy, my wife and my three kids Trey, 10, Claire, 5, & Taylor, 2.

**In your vision, in what direction should the AAUS be heading in the next decade? Limit your response to a maximum of 300 words.**

My vision for AAUS in the next decade is for AAUS to become a more valuable and credible resource for the scientific diving community by providing more support to the diving officer position and the organizational membership. To do this I think, as discussed at previous Symposiums, AAUS should continue the development of the DSO qualification procedure and start the development of an AAUS scientific diver certification that trains each OM's divers to the high levels needed to work safely and efficiently. These programs may also be used as a source of revenue for the Academy. Not only should AAUS develop these two programs, AAUS should establish programs that can replace the need of the OM to rely on organizations outside the scientific diving community. No outside organization knows the scientific diving communities needs better than AAUS yet we rely on their programs to train science divers. I would also like to see AAUS promote to each OM the value of the diving officer position. Too many OM administrations see the DSO position as a recreational diving instructor and don't understand the importance of the position. The OM's administration understanding the value of the DSO position within their respective organizations would help programs gain the administrative and operational support necessary to conduct a safe, efficient and productive diving operation.

**Rank in order of importance the six focus areas listed in the AAUS Strategic Plan for 2008 through 2011 (administration, credibility, membership services, scholarship, standards & training, and statistics), provide comment on the items listed under each area, and describe a goal and strategy for meeting your top three ranked focus areas.**

**Credibility:**

This is one of the biggest problems facing AAUS today. The last bullet point in this section of the SP, developing an accreditation and compliance process, I would move to the top of this section and will make this a priority. Many OMs don't have credibility, even amongst other OMs, let alone outside the Academy. This is because there are many DSO/OMs that don't understand the culture of the scientific diving community. I'd like to develop an accreditation process so that being an AAUS OM actually means something. Once we add credibility and value to being an OM, other outside organizations will see AAUS as credible.

**Administration:**

The financial side of this section is why I placed this second in importance and is very important in establishing the credibility I mentioned above. AAUS needs to develop a better revenue stream. I will push to increase AAUS revenue by following through with the Strategic Plan and work to develop programs and services that will be valuable to the OMs and increase the AAUS income.

**Standards and Training:**

I'd like to see AAUS expand upon an already proven training model by adding skills and training that promote better buoyancy and positioning, better finning techniques and increased environmental awareness. I'd like to see a training curriculum that addresses the special skills needed by scientific divers, and not just a robust recreational diving program.

**Membership Services:**

This section of the Strategic Plan works and if done correctly we could use some of these services to help with revenue.

**Statistics:**

We've been doing this since the inception of AAUS and need to continue to do so. Any improvements should be made in the way OMs submit their stats.

**Scholarships:**

I believe AAUS is doing a good job of meeting this goal of the Strategic Plan.

**What relationships/networks/professional contacts/non-profit board experiences do you have that will benefit AAUS by having you on the AAUS BOD?**

I have been at the University of Miami/RSMAS for 17 years and have developed relationships and professional contacts with various equipment manufacturers and

distributers as well as several different training agencies. As for non-profit board experience I am currently, and have been for the past 6 years, on the BOD of one of my local city run youth centers. This board assists, with the city manager, the parks and recreation director in the direction and long term planning for the facilities and it's uses. We also provide scholarships for underprivileged youths by soliciting local businesses for contributions.

## DIRECTOR-AT-LARGE CANDIDATES

### **GEORGE PETERSON**

Diving Safety Officer/Dive Program Manager  
Monterey Bay Aquarium

I grew up in Iowa, graduating from the University of Iowa in 1995. I immediately moved west to Colorado and became a professional diver. During the next few summers I lived in the Bay Islands of Honduras while managing a dive resort and took a lead role in introducing technical diving to the area. Eventually I landed full time in Washington State to manage a busy Tech Diving facility and dive the deep walls of British Columbia. After two years in the PacNW I returned to Honduras to open my own resort and to work with the Bay Islands Conservation Association (BICA). BICA is a non-profit, non-governmental organization founded in 1991 by the people living in Bay Islands in order to initiate and coordinate efforts in protecting the Islands' fragile natural resources. BICA's operation and projects are funded through the support from local individuals, businesses and at times through national and international agencies. BICA has been instrumental in initiating many conservation projects including management of the Turtle Harbor Wildlife Refuge and Marine Reserve, protection of sea turtles, protection of coral reefs through installation of buoys, beach cleaning actions, environmental education in local schools, developing codes of conduct for divers and the monitoring of whale sharks.

In April of 2003 I was hired as the ADSO at the Monterey Bay Aquarium and received my initial Scientific Diver Training at Monterey Peninsula College. In 2004 I was promoted to Dive Safety Officer/Volunteer Coordinator and attended my first AAUS National DSO meeting at Wrigley. In 2006 I was promoted to Dive Officer/Supervisor of Dive Operations. My current title is Senior Dive Safety Officer/Dive Program Manager. Here at MBA I manage all aspects of our dive program; scientific, recreational and commercial. We currently have 100 volunteer divers and 55 staff divers performing over 4200+ scientific dives 364 days per year utilizing over 1200+ of these dives occur in the field doing research and/or collections. Some of these projects include Otter captures using rebreathers, scooters and

Wilson traps to support the federal recovery plan for the Southern Sea Otter: YOY White Shark research in net pens off the coast of Southern California, baseline assessments with RCCA and SIMoN for MPAs in California as well as remote operations in Canada, Mexico and Hawaii. We frequently collaborate on projects with USGS, NOAA, Cal F&G, MBNMS, CINMS, UCSC, MLML, UCB, Hopkins, MBARI, RCCA and Humboldt State. I personally have logged over 1000 scientific dives in the past eight years. I served on the AAUS standards committee in 2008 and 2009. In 2010, I was elected Secretary of the AAUS and I am also the Treasurer for the Association of Dive Program Administrators (ADPA), a group of approx 70 DSOs from Zoos and Aquariums in the US, Canada and Europe. In addition I am adjunct faculty at Monterey Peninsula College where I serve as Instructor for a Research Diving class.

### **Instructor Ratings/Professional Affiliations**

PADI, NAUI, ANDI, DSAT, DAN, ASHI, EFR, MFA, Kiss Rebreather certified, DMT (expired), Tri Mix certified, Repair Tech for numerous lines, and Reef Check.

### **In your vision, in what direction should the AAUS be heading in the next decade?**

I believe that the Academy would benefit by continuing the focus of the last few years on the already defined goals outlined in the most recent business plan. In the area of administration I would like to see AAUS develop a funding model to employ an administrative assistant on a full time basis. The move to raise OM dues coupled with authoring a grant proposal(s) to help defray the costs would allow us to free up the time of the volunteer board to focus on more appropriate tasks. With regards to standards AAUS has grown rapidly in the last few years and will continue to do so. I think the ongoing development of a mechanism to certify our own divers and DSOs in line with the needs of the scientific diving community would help to move away from relying on recreational agencies. This would allow us a measure of quality control with existing OMs as well as with the new OMs and DSOs joining in the coming years. By "taking back" our standards and providing the existing and new OMs a vehicle to do this not only is a benefit to the OM/DSO but serves as the first measure of quality control. In conjunction with regional DSO certification workshops this would allow us to train and certify DSOs with the same core standards. By furthering the development of the web based dive log our statistics should be more accurate with a higher number of OMs complying. The growth of AAUS will continue to happen. If we focus on these particular areas I believe we can help to promote this growth in a sustainable manner while continuing to guide the Scientific Diving community.



**Rank in order of importance the six focus areas listed in the AAUS Strategic Plan for 2008 through 2011 (administration, credibility, membership services, scholarship, standards & training, and statistics), provide comment on the items listed under each area, and describe a goal and strategy for meeting your top three ranked focus areas.**

Standards and Training:

I believe that AAUS needs to take back our standards and not rely on recreational agencies to train and certify our divers and DSOs. Goal: To develop regionally based DSO certification summits employing the use of AAUS qualified mentors to help guide the OM and DSO in the process. Strategy: Create the position of Training Director, either paid or BOD level, with a committee to help implement the summits.

Membership Services:

Services for the membership have increased in the last years but not all OMs are aware of the new benefits. If the Academy can disseminate this information to the membership and tap into the collective knowledge of the past and present AAUS DSOs to help the new DSO/OM to implement these tools, it will serve to raise the bar throughout our community. The ongoing move away from Memberclicks to a new website will help to facilitate this.

Credibility:

This topic is tied to the first two areas of focus. In the coming years AAUS will continue to experience growth, not only in the number but also the diversity of our OMs. Goal: When the full implementation of the Academy's 2008-2011 plan is realized I believe it will benefit AAUS, the OMs and ultimately DSOs to implement an accreditation program. Strategy: Further develop and implement the AAUS accreditation model. In the aquarium industry the entire institution including the dive program is subject to independent peer review approximately every five years. These types of programs can serve as valuable tools for DSOs to educate Administrators on what we do and advocate for any number of benefits including more fiscal, operational or personnel resources.

Statistics:

As stated earlier by furthering the development of the web-based dive log our statistics should be more accurate due to a higher number of OMs complying. By continuing to share these with the diving community at large we will reinforce our historically safe record and ultimately our exemption.

Scholarships:

The continued diversification of funding streams are good examples to support further expansion of AAUS's scholarship opportunities. The Academy's recent establishment of a 501c3 will strengthen this cause.

Administration:

By developing a funding model to employ an administrative assistant on a full time basis and improving some functions of our online office we will be better equipped to meet the challenges of sustainable growth by diversifying the efforts to our BOD, committees and members.

**What relationships/networks/professional contacts/non-profit board experiences do you have that will benefit AAUS by having you on the AAUS BOD?**

I am currently the elected Secretary on the Board of Directors for the AAUS and have served in this position since Jan 1, 2010. I have been involved with a number of the recent proposals including DSO certification and accreditation and believe my re-election as a Director-at-Large will benefit the Academy as it will allow for continuity and un-interrupted momentum with regards to these and other current BoD projects. I also serve as the Treasurer of the Association of Dive Program Administrators (ADPA) [www.adso.org](http://www.adso.org). This is a group of approximately 70 DSOs (17-19 are also AAUS OMs) from zoos and aquariums throughout the United States, Canada and England. The mission of the ADPA is to serve as a professional forum for the exchange of safe diving practices. If re-elected to the AAUS BoD I would continue to work to inform appropriate ADPA members to explore AAUS membership for their respective institutions as well as to represent the mutual interests of both groups. I am also an active participant in DOCAL (Dive Officers of California), a group of university and aquarium DSOs from California, Oregon and Washington, of which most are AAUS members. This group is a valuable resource of experienced DSOs that often work together on collaborative projects and serve as mentors for new DSOs in our area. Additionally, I have a professional working relationship with the Monterey Bay National Marine Sanctuary's SIMoN (Sanctuary Monitoring Network) dive team and previously served as co-DSO for the program. I serve on the DCB of AAUS OM applicant West Valley College in Saratoga, CA and I also collaborate with Reef Check of California (RCCA) [www.reefcheck.org](http://www.reefcheck.org) through a formalized MOU to have MBA scientific divers monitor a permanent station in the MBNMS.

**KEVIN BUCH**

Diving Safety Officer

Texas A&M University at Galveston

Howdy Folks! Many thanks to the Board for the opportunity to run again-I am honored to have received a nomination, and look forward to the opportunity to serve AAUS and its membership as a BOD participant.

I currently serve as the DSO for Texas A&M University at Galveston (TAMUG), a position I have held for over five years. The diving program here at TAMUG has all university-related diving and responsibility for diving equipment and infrastructure managed under a comprehensive program which is overseen and administered by the DSO. My experience with diving, dive programs and scientific diving is varied, is both practical and managerial, and includes years spent in both the scientific and recreational diving professions.

My scientific diving career began more than a decade ago with NOAA as a Research Specialist for the Flower Garden Banks National Marine Sanctuary (FGBNMS) where I was involved in the planning and execution of research projects in the Sanctuary, as well as spending lots of time under the water actually doing the work. From the FGBNMS I moved to the Perry Institute for Marine Science (an AAUS OM) stationed at the Institute's marine lab, the Caribbean Marine Research Center (CMRC) at Lee Stocking Island, Exuma, Bahamas (also a NOAA Undersea Research Program Center). I spent almost four years coordinating and conducting research for visiting scientists and in-house projects and worked closely with the CMRC DSOs, often serving as the on-island DSO during transition periods. I also spent many years managing a recreational diving business, and as a NAUI Course Director still actively teach entry, intermediate and leadership level courses through our academic diving program here at TAMUG, and I feel that AAUS can benefit by keeping abreast of the changing standards and trends within the recreational diving community. In addition to my status as a NAUI CD, I am also an Instructor with DAN, Technical Diving International (TDI), and hold TDI ratings in Decompression Procedures, Advanced Nitrox, and Nitrox Gas Blender, as well as an IANTD Technical Cave rating. At this point in my career I am fortunate to have made many great contacts and gained insight and perspective from many different scientific diving programs, both inside and outside of AAUS. I currently serve on the DCBs or Advisory Boards for several varied institutions. I currently face, or have faced, many of the common issues affecting the scientific diver today, both at the programmatic level and as the guy in the field, underwater, collecting the data. As I have advanced myself as a scientific diving professional I have been supported many times directly and indirectly by the membership of AAUS, and would welcome the chance to pay back some of that support. Thanks!

**In your vision, in what direction should the AAUS be heading in the next decade?**

As we move through the final year of the 2008-2011 Strategic Plan we will need to look at the specific targets that we set in our focus areas, working with the board and general membership to review progress and set new goals. Here are some of my general thoughts:

I would also like to see AAUS work to increase general academic and public awareness of who we are, what we do, and the services/benefits we provide. For example, I know that even given my current efforts I have administrators and researchers within my own institution who have only a vague idea of what AAUS is all about, and I have heard similar comments from other members as well. I'll bet that most of us have experienced difficulties with support or funding at some point that could have been lessened with a better understanding of our benefits and services by those outside our immediate membership.

Some ways to build awareness might include: expanding/improving our education and outreach materials (including building our internet/social media presence), possibly increasing our representation at an organization at more of the major scientific conferences/meetings, and putting together an informational/educational program that OM reps/DSOs could implement at their home institutions.

I believe that our mission and the product we deliver is valuable, and as we move forward I would like to see us work creatively to pass our message along to those outside the AAUS family. Increased awareness in both the public and private sectors could be an important factor in supporting our continued growth.

**Rank in order of importance the six focus areas listed in the AAUS Strategic Plan for 2008 through 2011 (administration, credibility, membership services, scholarship, standards & training, and statistics), provide comment on the items listed under each area, and describe a goal and strategy for meeting your top three ranked focus areas.**

These are all important areas to our continued growth and improvement. Here are my thoughts on priorities:

**Standards and Training:**

Through my experience as a diving researcher and as a diving educator, I have seen the direct result of our standards and training policies in the water, and feel that this is at the core of what we do. **Goals:** I would like to see us bring to completion the development of the DSO qualification program, and the revisions of the rescue and first aid training sections. Now that the basic scientific diving training manual and standardized core exam have been released, we need to implement a formal feedback program to get input from OMs who have incorporated these materials and are actively teaching with them, identifying suggestions and areas of improvement. Individual OM flexibility will always be a necessity, but in general I feel that, with regards to standards and training, standardization leads to more consistency and that consistency enhances safety. **Strategy:** The constant revisions of standards and implementation of our certification programs is obviously a big job. One way

to make it easier might be to identify individuals within AAUS with experience/expertise relevant to a particular topic needing development or revision and ask them to contribute material for that small section. This would spread the work out and would also enhance the overall quality of the final product.

**Credibility:**

An important aspect of our future growth will be how we are perceived by the OMs that support us, by the governmental and non-governmental agencies/institutions we collaborate with, and by the scientific community at large. **Goals:** I feel that the standardized "accreditation and compliance" program mentioned in the strategic plan is a very good idea, as it would result in an impressive final product clearly showing the benefits of AAUS to those key OM persons outside the scientific diving program. We should keep working to determine what final shape this program would take and how best to acknowledge and leverage those OMs who are "accredited." **Strategy:** possibly creating "regions" where OMs are geographically clustered and asking a local DSO/OM rep to serve as the "coordinator" with the other reps in the region for purposes of helping each other with the compliance process and with identifying/participating in local and regional opportunities for outreach/awareness

**Membership Services:**

The way standards, training and policies are implemented can be positively influenced by the level of support AAUS provides to the individual OMs. **Goals:** develop tools and materials to help OMs better educate those they interact with about AAUS and dramatically improve our web presence. **Strategy:** short-term might be to work to broaden distribution of The *Slate* and expand the "About Us" section of the website to include a more complete description of what we do, possibly incorporating an audio/video message and a rotating "highlighted" OM scientific diving program. Create support materials that OM reps/DSOs could use for presentations to those within their institutions that they would like to be better informed, or to local organizations and media outlets.

**Administration:**

Because of the importance of financial resources I almost listed this one first, but it's pretty obvious that for us to have success in the first 3 areas I prioritized (especially 2 and 3), we are going to need to expand our funding sources. Perhaps a committee focused solely on proposals and grant searches?

**Statistics:**

Core reporting to me seems solid, but as the strategic plan mentions, we should work to improve the standardization and efficiency of the process. For example: for reporting purposes, are we standardized across all OMs as to what defines our various categories of dives, i.e. T&P vs. Scientific? Do we

have a clear enough standard for definitions and reporting of scientific diving "incidents"?

**Scholarship:**

Growth in this area would also constitute an improvement in the Membership Services and Credibility focus areas

**What relationships/networks/professional contacts/non-profit board experiences do you have that will benefit AAUS by having you on the AAUS BOD?**

I am fortunate to have worked (and to continue to work) with a lot of great people, and I have built many great relationships over the years as a diver and as a diving scientist. Some of these relationships relevant to AAUS include my work with NOAA's National Marine Sanctuary Program, my service on several Diving Control Boards (DCBs), and collaborative programs with several universities and NGOs (Reef Environmental Education Foundation, Gulf of Mexico Foundation, Harte Research Institute). As an active recreational diving educator, I also work closely with representatives from some of the major training agencies.

I work frequently with NOAA's National Marine Sanctuary Program (NSMP), both locally with the Flower Garden Banks NMS, and with staff at NOAA headquarters. As the NSMP grows in scope and budget, so does its need for qualified scientific manpower underwater. AAUS OMs are well placed to help satisfy this need, a situation that I feel is mutually beneficial to both AAUS and NOAA, as AAUS gains opportunities for OM divers and scientists as well as increased public awareness, and the NSMP gets support in fulfilling their core missions. Some of these ideas were expanded on during my talk at the 2009 Symposium.

I currently serve on DCBs for both non-profit (Perry Institute for Marine Science, Ocean Opportunity) and academic (Texas A&M University at Galveston, University of Texas-Brownsville) institutions. I am also currently working to help other Texas universities as they develop their own scientific diving programs. These relationships give me an opportunity to observe the practical aspects of implementing or maintaining an AAUS program, and these insights would be useful in helping AAUS refine standards and policies in the future.

**SECRETARY CANDIDATES**

**STEVE BROADHURST**

Diving Safety Officer  
North Carolina Aquarium

Steve Broadhurst is the Dive Safety Officer for the North Carolina Aquarium at Pine Knoll Shores where he also

manages their Staff and Volunteer Dive Teams as well as their Boating Safety Program. He started diving in the early 80s and received his NAUI Instructor certification in 1987 at East Carolina University. While completing his undergraduate degree at the University of North Carolina - Wilmington, he was trained as a Scientific Diver for NOAA's National Undersea Research Center where he worked as the Liaison Divemaster for NURC/UNCW projects. He then worked as Divemaster on a UNCW/University of Puerto Rico project to survey coral reefs. After graduation, Steve worked at the NC Aquarium and local Dive Shops before returning to Graduate School at East Carolina University where he studied Environmental Biology. While at ECU, he worked in their Dive Safety Office and taught Recreational Diving courses in the University's Exercise and Sport Science Department. Steve moved to Tampa, FL in 1996 to work at the Florida Aquarium, and then relocated to Baltimore, MD where he was the Dive Safety Officer at the National Aquarium for 8 years. At this facility he also managed their Marine Operations and Boating Safety Program, built several custom vessels, and managed the Aquarium's Coral Reef Conservation Program based in the Bahamas. He had the opportunity to move home in 2006 to become the Dive Safety Officer at the newly renovated North Carolina Aquarium at Pine Knoll Shores. Steve now lives in Atlantic Beach, NC with his wife and has a daughter in college. He is presently seeking a position on the AAUS Board of Directors and hopes to help guide this organization to reach their goals during the coming years.

**In your vision, in what direction should the AAUS be heading in the next decade?**

Over the years, AAUS has seen periods of tremendous growth, while at other times our goals have been reached more slowly. Like many organizations that are fueled by the efforts of volunteers, this is not uncommon. All too often, the great ideas and momentum from the group's last meeting can take a step back when we return to our other full time jobs. Excellent leadership is the key to keeping things on track and over the next decade I would like to see this trend continue. It is important that we focused on a dedicated Administrative Assistant position and that we continue to consider an Executive Director position in the future. Expanding upon the many other elements identified in the strategic plan will further help our organization reach its goals. Identifying more funding sources from outside our membership and securing that funding is critical to our growth. We should also continue to develop training programs for new DSO's as well as training materials and continuing education/professional development opportunities for all members. I feel it will take a combination of hard work, passion, and patience to keep things moving forward. To that end, I would like the opportunity to lend a hand.

**Rank in order of importance the six focus areas listed in the AAUS Strategic Plan for 2008 through 2011 (administration, credibility, membership services, scholarship, standards & training, and statistics), provide comment on the items listed under each area, and describe a goal and strategy for meeting your top three ranked focus areas.**

Of course, all of the six focus areas are near equal in importance and are completely intertwined, so they are difficult to rank. Below you will see my thoughts on how they should be ranked.

**Administration:**

The effective administration of our organization is at the top of my list. Without that it will be very difficult to reach our goals. It takes time to create and implement a strategy along with hard work and funding to see it through. We rely heavily on our membership to get the work done, so we have to focus on working smarter rather than harder. Excellent communication will be important and further increasing the functionality of our website will be helpful. The full time Administrative Assistant position will continue to help, but we will need to consider other paid positions too. With a paycheck comes more accountability and that will help to get things done. There is also the issue of limited financial resources. We will need to be frugal while working to expand our financial base. I feel we need to mainly focus outside of our membership to do this. Grant funding and sponsorship opportunities will need to be investigated. As the old saying goes, "It's all about time and money."

**Standards and Training:**

This is the heart and soul of our organization and needs to be at the top of the list as well. It is what allows for the scientific exemption and is the core of our mission. In our immediate future, I would like to continue developing training programs for new DSO's as well as more continuing education and professional development opportunities. I would also like to see a formal self-audit, peer review, or mentorship process to help new OM applicants. In addition, I would like to see the development of a working diver standard in support of scientific diving programs.

**Membership Services:**

The area of services we provide to our members is another list topper. Without its members, the organization would be pointless. The website should be the center of attention for this focus area. Already there are many valuable resources offered, but more should be added and others should be improved. So we aren't constantly reinventing the wheel, standardized web-based AAUS training and testing materials would be very helpful. I would like to see more ways that regional members could share training resources as well. This could be helpful by

combining smaller classes to maximize our training efforts.

**Credibility:**

This focus area is linked to all others. Without it AAUS would not be respected by our members, peers, etc. Our credibility is dependent on adherence to high standards, excellent record keeping, a professional image, and maintaining good relationships with other organizations.

**Statistics:**

Statistics are important to our organization and help demonstrate our excellent safety record. Recent web-based dive log applications have streamlined reporting and could be improved to make the process even easier.

**Scholarship:**

Not to understate its importance, but the scholarship ended up on the bottom of my list. Non-profit status will help with fundraising efforts. At that time, restructuring will be necessary to coordinate the program. The scholarship helps with AAUS credibility as well.

**What relationships/networks/professional contacts/non-profit board experiences do you have that will benefit AAUS by having you on the AAUS BOD?**

I have had the opportunity to partner with a number of organizations over the years. I am presently working with local DSO's to host a regional Scientific Diving Symposium at our facility. We recently completed year two with over 50 participants and have hopes to expand in the coming years. Some of the programs represented at the symposium were NOAA, Duke University, the University of North Carolina, NC Division of Marine Fisheries, and NC State University. I am also active on the board of the Eastern Carolina Artificial Reef Association. This organization is working with state government agencies and the dive community to create artificial reefs in eastern North Carolina. I have been a member of the Association of Dive Program Administrators for more than 15 years and in the past I served on the board as Membership Director. In addition, I am working within the state Department of Environment and Natural Resources to create a shared use research vessel agreement.

**LORA PRIDE**

Diving Safety Officer  
Louisiana Universities Marine Consortium (LUMCON)

My diving career stretches over the past 10 years, beginning at the University of Maryland as a research assistant. There began my AAUS scientific diving career, diving for bottom sediment cores and sea grass collection on a variety of research projects. From there I came to

LUMCON as a research associate and became heavily involved in our research diving which is, more times than not, in low visibility high current conditions. For the past nine years I have been coordinating, planning and executing dive research trips on a regular basis involving divers from LUMCON, other AAUS institutions, and volunteer divers. I have been an instructor for 5 years and hold certifications in nitrox, contaminated water diving and dry suit diving. I am a CPR/First Aid instructor as well as a DAN O2 instructor.

As the current Dive Safety Officer at LUMCON as well as a LUMCON research associate involved in research diving, I am able to understand and meet the needs of researchers while maintaining diver safety by adhering to AAUS standards and practices. LUMCON consists of a consortium of 20 universities who have research and potential research diving needs, which we are able to accommodate. I feel it is important for AAUS to bridge the gap, maintain, and understand researchers diving needs in a productive manner without compromising AAUS diving safety and standards. Because of my dual responsibilities here at LUMCON, I can see both sides of the coin, so to speak, and have encountered common difficulties much as my fellow DSOs have. I am also able to understand the added layer of logistics researchers face when diving is involved as part of their research. With this understanding, I can bring insight and suggestions on how to accommodate both parties effectively and constructively. An opportunity to serve on the board would be a great honor and would allow me to be a small part of shaping the future of AAUS. Thanks!

**In your vision, in what direction should the AAUS be heading in the next decade?**

In the next decade I feel that AAUS should steer towards increasing membership to create a wider circle of uniformly trained scientific divers while still maintaining our reputation as being an institution that believes in advancement of science through safe scientific diving. One of the goals of AAUS is and always should be for member organizations and applying member organizations to create a safe conscientious dive program through training to allow scientific research, surveys and studies that involve diving to proceed safely. By increasing membership while still adhering to AAUS beliefs, both AAUS and the scientific community, academic and private, will have a greater number of qualified and competent divers conducting research who are at a minimum, trained to a uniformed level within AAUS.

**Rank in order of importance the six focus areas listed in the AAUS Strategic Plan for 2008 through 2011 (administration, credibility, membership services, scholarship, standards & training, and statistics), provide comment on the items listed under each area,**

**and describe a goal and strategy for meeting your top three ranked focus areas.**

**Administration:**

Without administrative organization within the institution, we would not be able to maintain our exemplary reputation as being a highly credited scientific diving institution. Administration is the meat and potatoes, if you will, of AAUS. All administration positions within AAUS play equally important roles in ensuring that AAUS as a whole functions smoothly and efficiently.

**Standards and training:**

AAUS members need to be trained to the same minimum levels to ensure safety across the board between member organizations. A consistent set of standards and training for all institutions to follow and adhere to will allow a uniformed consistency between institutions.

**Statistics:**

Reporting statistics is important to AAUS for a historical compilation of information regarding the types of diving we are doing and where. Statistics also help us keep track of the number of dives our members do each year compared to the number of accidents that occur each year. This information is used to show OSHA our exemplary safety record which allows us to maintain our OSHA exemption.

**Membership services:**

Our members are the core of the AAUS. It is important to tend to the needs, questions and concerns of the members and address each promptly and thoroughly. Membership is an important key to the future success of AAUS, therefore it is vital that membership services be consistently and readily available to all member and applying member organizations and that they are provided exceptional service.

**Credibility:**

The reputation of our institution extends far and AAUS credibility speaks for itself. It is important for AAUS to maintain our professionalism and exceedingly safe scientific diving standards to maintain our credibility as a professional institution that is committed to the safety of scientific research diving

**Scholarships:**

The future of scientific diving research is in the hands of these future scientists and it is important to reward creative and intelligent students who wish to include diving into their research.

**What relationships/networks/professional contacts/non-profit board experiences do you have that will benefit AAUS by having you on the AAUS BOD?**

My positive relationships and interaction with several current and past DSOs as well as current and past

board members will allow me the ability to interact effectively and directly with members in a productive and professional manner. Being a research scientist also allows me to understand research needs and to provide solutions that both meet AAUS standard criteria and the needs of research scientists. I currently serve on the board of directors for our local community orchestra as treasurer, which gives me experience in BOD operations and insight into responsibilities and obligations being a board member entails.

## **EQUIPMENT RECALLS/ADVISORIES**

### **Worthington Cylinders Advisory**

Recently there has developed a situation where Worthington Cylinders scuba cylinder SP-14157 have failed hydrostatic requalification. The following information is provided to you for use in counseling those who may be affected by this situation. When the requalification process has been properly administered (by first conducting the required pretest twice at 89% test pressure followed by the requalification test to test pressure) X-S SCUBA, the distributor of this cylinder, will replace these cylinders when the following information is provided to them:

1. A completed hydrostatic report that shows the requalification process was properly conducted
2. Complete data is recorded from the crown
3. A picture of the cylinder clearly indicating it will not hold gas inclusive of the serial number. X out all markings except serial number and hydro.

For more information you should contact X-S SCUBA customer service at 866-977-2822.

### **DUI Weight and Trim Systems Warning**

DUI recently became aware of a problem with some DUI Weight & Trim Systems shipped after July 2010. If the lanyard and/or cables are not the right length the weight pockets do not easily detach from the harness when the handle is pulled. In the unlikely situation a handle is pulled in an emergency situation, this could prevent the weights from easily dropping as designed. No incidents have been reported. All of the Systems affected have GRAY fabric handles. Systems with yellow plastic handles are NOT affected. If you have one of these systems, stop using it immediately and call DUI at 800-325-8439 or e-mail [customerservice@dui-online.com](mailto:customerservice@dui-online.com) to receive appropriate instructions.

- DUI Weight & Trim System Owners
- DUI Weight & Trim Classic
- DUI Weight & Trim II

Systems shipped after April 20, 2011 with yellow handles or gray handles and a large silver stripe are not affected.

## UPCOMING EVENTS

### SPUMS Annual Scientific Meeting 2011

The 40<sup>th</sup> annual scientific meeting of the South Pacific Underwater Medicine Society (SPUMS) will be held May 22-27 at the Hilton Resort and Spa, Tumon Bay, Guam. Meeting themes include: medical aspects of military, occupational and recreational technical diving; head injury and diving workshop – review of clinical cases and guidelines; and management of acute diving injuries. Keynote speakers include: David Doolette, PhD, US Navy Experimental Diving Unit, Panama City, FL, USA; Simon Mitchell, MD/PhD, University of Auckland, New Zealand; and Andrew Fock, MD, Alfred Hospital, Melbourne, Australia. Contact: SPUMS ASM 2011 Convener Dr. Sarah Lockley ([spumssecretary@gmail.com](mailto:spumssecretary@gmail.com) or [secretary@spums.org.au](mailto:secretary@spums.org.au)). Register via the SPUMS website ([www.spums.org.au](http://www.spums.org.au)).

### SML Underwater Research Course

Shoals Marine Laboratory (SML), affiliated with Cornell University and the University of New Hampshire, is offering an *Underwater Research* course July 25-August 08, 2011. This course will be held on Appledore Island, located six miles off the coast of Portsmouth, NH. *Underwater Research* fulfills the requirements to obtain active AAUS scientific diver status and the course credits may be transferable to your home institution. The primary goal is to provide guidance and opportunities for students to conduct original research underwater. Lectures cover the philosophy of research, hypothesis testing and experimental design, theoretical and practical aspects of sampling, current ecological research in the Gulf of Maine, new techniques for underwater research, advanced aspects of diving physics and physiology, theory and use of diving tables, and hyperbaric medicine, among other important topics. All students have the opportunity to design and conduct original research as a focus of the course. Dive accident management, CPR, first aid, AED and oxygen administration training for divers is also included. Tuition includes room and board, activity fees, and round trip boat transportation between Portsmouth, NH and Appledore Island. Financial aid is available. For more information visit: <http://www.sml.cornell.edu>.

### Sci. of Wound Care, Diving, & Hyperbaric Med

The conference will be held at the Ritz Carlton in Palm Beach, FL, August 04-07, 2011. Visit: [www.orf2011.com](http://www.orf2011.com) or contact Sharon Phillips at [sphillips@orf2011.com](mailto:sphillips@orf2011.com).

### EUBS Annual Scientific Meeting 2011

The 37<sup>th</sup> annual scientific meeting of the European Underwater and Baromedical Society (EUBS) will be held August 24-27 at the Medical University of Gdansk, in Gdansk, Poland. Main conference topics will include:

diving physiology and medicine; non-dysbaric disorders; research in deep diving and dysbaric diving disorders; basic research and clinical hyperbaric medicine; and hyperbaric safety, technology and organization. Abstract submission deadline is May 01. Several satellite meetings will also be conducted: ECHM workshop 'HBO in Emergency Medicine,' EBAss meeting, EDTCmed meeting and DAN Divers Day. Visit: [www.EUBS2011.org](http://www.EUBS2011.org).

### AAUS Symposium 2011

The 2011 AAUS Symposium will be held in Portland, ME October 10-15. The Portland Regency will serve as the symposium hotel and the University of Maine Darling Marine Center will host the preconference workshops, annual DSO meeting and AAUS Business meeting. Workshops include:

- PSI - VCI certification and recertification courses
- PSI - Eddy Current Testing
- DAN Instructor Certification
- Diver-based suction sampling: a monitoring tool for newly settled lobsters
- Quantitative observation of the adult American lobster (*Homarus americanus*)
- New DSO Orientation
- DUI Demo Day

Make travel and lodging arrangements early to avoid missing out. Look for additional information and registration materials in an email invitation that will go out to all members or on our website ([www.aaus.org](http://www.aaus.org)). You can register directly at <http://guest.event.com/d/ydggkt/4W>. Contact Chris Rigaud at [crigaud@maine.edu](mailto:crigaud@maine.edu) or the AAUS office at [aaus@disl.org](mailto:aaus@disl.org) for more information.

### Tenerife Int'l Practical Anesthesiology Conference

The International Congress of Anesthesiology will meet November 07-10 at the Abama Golf & Spa Resort on Tenerife, Canary Islands. The topic of the conference is 'Hyperbaric medicine and its applications in daily practice.' The event is accredited by INAMI/RIZIV. Visit: [www.tipactenerife.org](http://www.tipactenerife.org) for more information.

### International Marine Forensics Symposium

The Marine Forensics Committee (MFC) of the Society of Naval Architects and Marine Engineers (SNAME) is planning an "International Marine Forensics Symposium" to be held at the Gaylord National Hotel, Washington, DC, on April 02-05, 2012. The Symposium date was selected to honor the 100<sup>th</sup> anniversary of the sinking of RMS Titanic April 12, 1912; the 150<sup>th</sup> anniversary of the sinking of USS Monitor, December 31, 1862; and approximately the 200<sup>th</sup> anniversary of the destruction of Commodore Joshua Barney's Flagship, the USS Scorpion during the war of 1812, as it tried to defend against the British march on Washington, DC. This event is co-sponsored by: Marine Technology Society (MTS), Royal Institute of Naval

Architecture (RINA), American Society of Naval Engineers (ASNE), and Institute of Marine Engineers, Science and Technology (IMARest). For more information visit: <http://www.rina.org.uk/marineforensics>.

## JOB OPPORTUNITIES

### Dive Tech. - University of Alaska

Researchers at the University of Alaska Fairbanks are seeking an AAUS-certified diver to assist with a field experiment in Juneau, AK. The job will involve assisting a PhD student in Dr. Ginny Eckert's lab conducting predation experiments using juvenile red king crabs. This supports a king crab stock enhancement feasibility study: <https://www.uakjobs.com/applicants/jsp/shared/frameSet/FrameSet.jsp?time=1298299888679>.

### Georgia Aquarium Assistant DSO

The Assistant Dive Safety Officer (ADSO)/Volunteer Coordinator will work with a diverse team of divers in the implementation of dive safety procedures to ensure the safety of all employees at the facility and offshore. The ADSO will possess a broad knowledge base in all aspects of diving and diving technology. S/he should also possess broad technical and scientific expertise in research and research-related diving. The ADSO's level of knowledge and diving skills should span the reach of the Georgia Aquarium's dive program, particularly the volunteer diving program. Contact Jeff Reid, DSO/Manager (404-581-4310; [jreid@georgiaaquarium.org](mailto:jreid@georgiaaquarium.org)) for more information and application.

## NEW PUBLICATIONS

**Goffredo S, Caroselli E, Gasparini G, Marconi G, Putignano MT, Pazzini C, Zaccanti F. Colony and polyp biometry and size structure in the orange coral *Astroides calycularis* (Scleractinia: Dendrophylliidae). *Mar Bio Res.* 2011; 7(3): 272-280.**

Coral polyps inside a colony may differ in reproductive activity and ecological function even while sharing the same genetic identity. Although polyps are the basic units of coral colonies, their size, biometry and size structure have rarely been studied. This study investigated, for the first time, colony and polyp biometric relationships and intra-colony polyp population size structure in the Mediterranean endemic *Astroides calycularis* (Pallas, 1766). Biometric parameters for 160 colonies and 4162 polyps were measured with consideration of polyp position inside the colony (central or peripheral). The positive allometric relationship between polyp width and length, resulting in a progressively circular oral disc as polyp size increases, may relate to the low-sedimentation characteristics of the habitat of this species. The smaller size of peripheral

polyps compared to central ones suggests that polyp budding occurs preferentially at the outskirts of the colonies, possibly increasing the competitive advantage for space utilization. Larger colonies had polyps with smaller size than small and medium colonies, due to an over-representation of the size class containing polyp size at sexual maturity. It is proposed that large colonies may invest energy in increasing polyp size up to the size at sexual maturity, rather than increasing the size of already mature polyps.

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.

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