

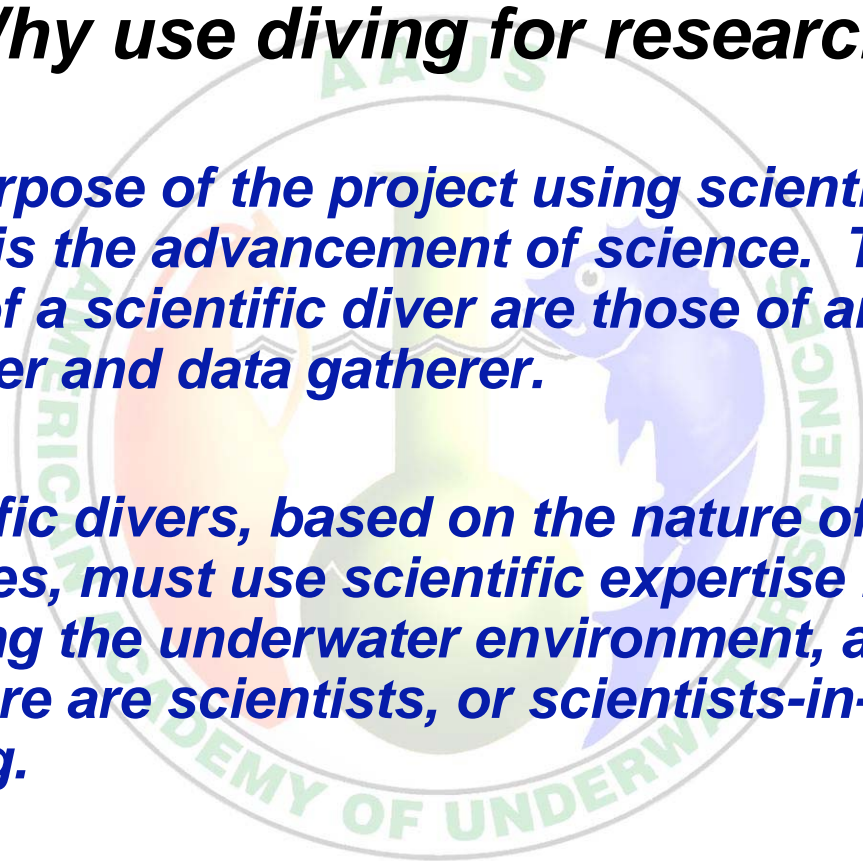
**Introduction to
AAUS
and
Scientific Diving**

**The American Academy of
Underwater Sciences**

Why use diving for research?

The purpose of the project using scientific diving is the advancement of science. The tasks of a scientific diver are those of an observer and data gatherer.

Scientific divers, based on the nature of their activities, must use scientific expertise in studying the underwater environment, and, therefore are scientists, or scientists-in-training.



Diving is a research tool

Scientific divers must be trained to use this tool to a level of proficiency that allows them to focus on the research task.

Most scientific institutions and universities require extensive training and specialized experience before authorizing their scientists and research support staff to conduct underwater research using scuba or other wet-diving technologies.

How to Become a URI Research Diver

- URI sponsor
- Medical exam
- SCUBA certification
- CPR, FA and Ox FA
- 5 OW dives
- Written exam
- URI dive manual and acknowledgment
- OW checkout dive
- Equipment
- DAN



The pursuit of science

Scientific diving differs from recreational diving and commercial diving in many ways. The advancement of science is the single goal.

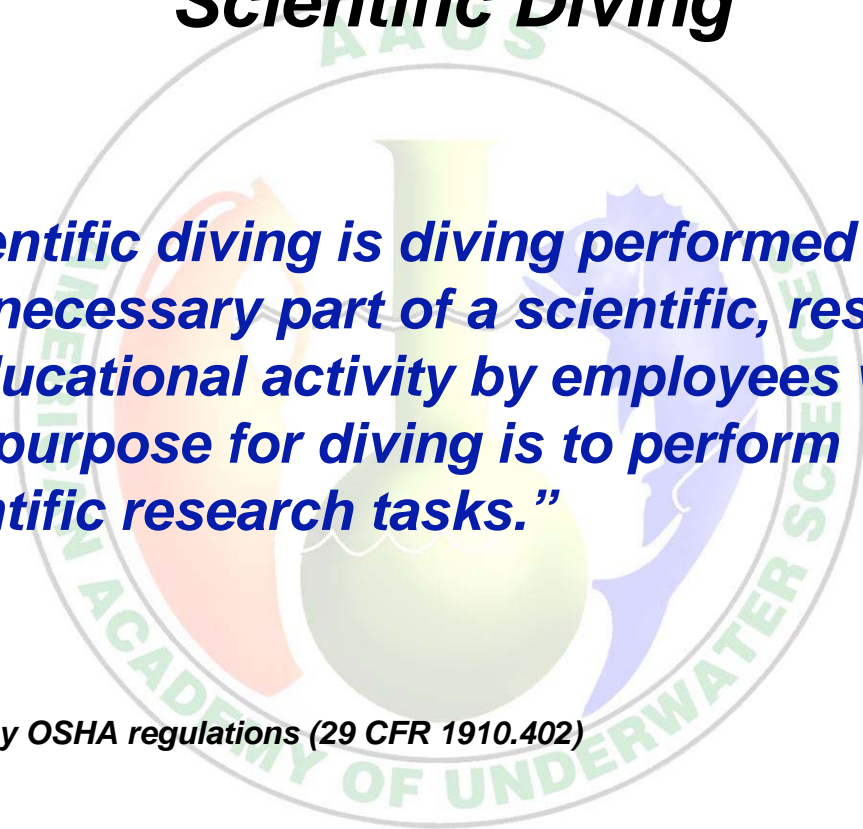
For many recreational divers, the thrill of breathing on scuba and enjoying the panoramic view of life beneath the sea is in itself the end goal of learning to dive.

Commercial divers are underwater construction workers, builders and trouble shooters.

Scientific Diving

“Scientific diving is diving performed solely as a necessary part of a scientific, research, or educational activity by employees whose sole purpose for diving is to perform scientific research tasks.”

As defined by OSHA regulations (29 CFR 1910.402)



Scientific Diving Safety

- ***establishment of the first scientific diving safety program: Scripps Institution of Oceanography, 1954***
- ***two-fold purpose:***
 - ***a research support function that assists the diving scientist with specialized underwater equipment, advice, and diver support***
 - ***a risk management function that protects the safety and health of the individual scientist, and the employing organization from excessive liability exposure***

A Brief History of the Creation of AAUS

- ***Organized in 1977, AAUS was incorporated in the State of California in 1983.***
- ***The Academy submitted arguments to OSHA on October 15, 1979 citing:***
 - ***Self regulation and consensual standards for over 20 years.***
 - ***And an accident/incidence rate lower than the Commercial Diving Industry.***
- ***After extensive negotiation and Congressional Hearings, the scientific diving exemption to commercial diving standards was issued, effective November 28, 1982.***

A Brief History of the of AAUS

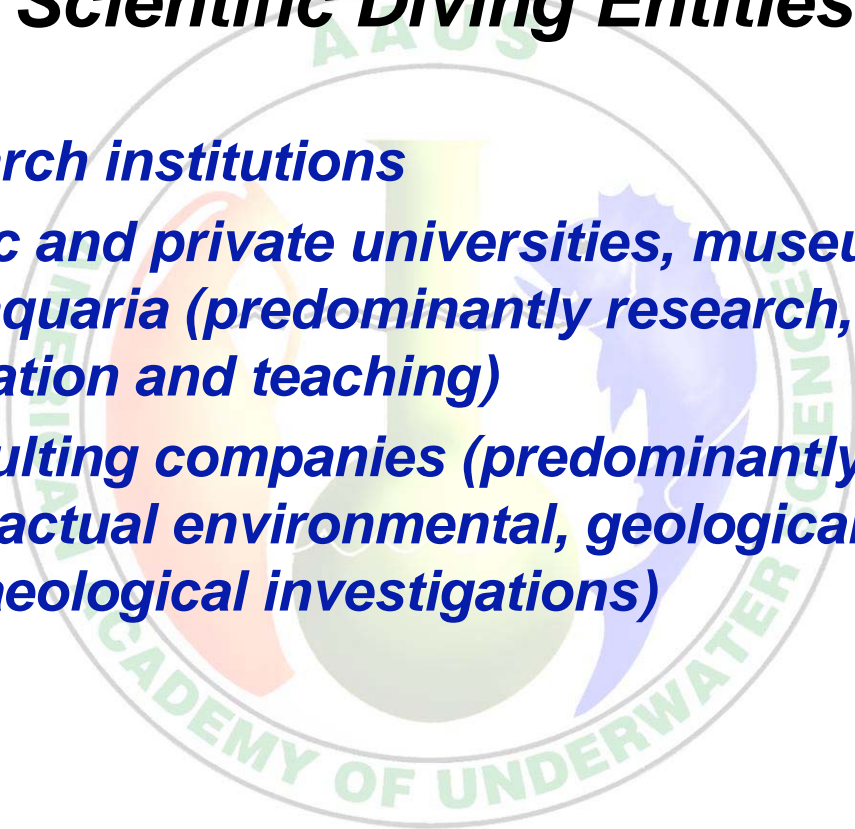
- ***AAUS is an organization of Organizations***
- ***AAUS certifies Scientific Diving Programs NOT individual divers***
- ***The strength of the Academy is this Organizational Membership (OM)***

Scientific Diver Population

- ***~4000 individuals in the U.S.***
- ***majority of long-term, career scientific divers (e.g. federal employees, university professors) in the 35+ average age category***
- ***high turnover of scientific divers at the university student level (18–34 age category)***
- ***no upper age limit for certification, the lower limit is generally 18 years of age***
- ***of the total scientific diver population, approximately 25% is estimated to be women***

Scientific Diving Entities

- ***research institutions***
- ***public and private universities, museums and aquaria (predominantly research, education and teaching)***
- ***consulting companies (predominantly contractual environmental, geological and archaeological investigations)***



Regulatory Authority

- **USA:**
 - *Federal (OSHA): Diving Safety Manual, Diving Control Board of active scientific divers;*
 - *State; and,*
 - *Employer.*
- **International:**
 - *EU and country regulations;*
 - *Confédération Mondiale des Activités Subaquatiques (CMAS); and,*
 - *Codes of Practice (Flemming, N.C. and M.D. Max (eds.) 1996. Scientific Diving: A General Code of Practice, UNESCO, Paris. 278 p.*

**29 CFR Ch. XVII Subpart T 1910.401
– Labor (OSHA)**

(iv) Defined as scientific diving and which is under the direction and control of a diving program containing at least the following elements:

- A. Diving Safety Manual***
- B. Diving Control Board***

Appendix B to Subpart T - Guidelines for Scientific Diving

- 1. diving control board : majority are active scientific divers - autonomous and absolute authority over program operations;***
- 2. purpose of diving is advancement of science;***
- 3. scientific diver is observer and data gatherer;
and,***
- 4. scientific divers use scientific expertise under water.***

AAUS OM / AAUS Relationship

- ***AAUS consensual standards are the AAUS OM scientific diving minimum.***
- ***It is the responsibility of the AAUS OM to review and augment these standards to fit their program if they deem it necessary.***
- ***These completed standards become the AAUS OM operational standards.***
- ***The liability related to these standards falls upon the AAUS OM not AAUS.***

Scientific Diver Certification

•OM's Certify Scientific Divers to AAUS Level

REQUIREMENTS FOR CERTIFICATION

- Scuba Certification
- Swimming evaluation
- Skin diving evaluation
- Current and approved Scientific Diving Medical Examination
- 100 hours of theoretical and practical study
- Test of knowledge/Written examination
- Current CPR, First Aid and Oxygen Administration Training
- 12 Supervised training dives

MAINTANCE OF CERTIFICATION

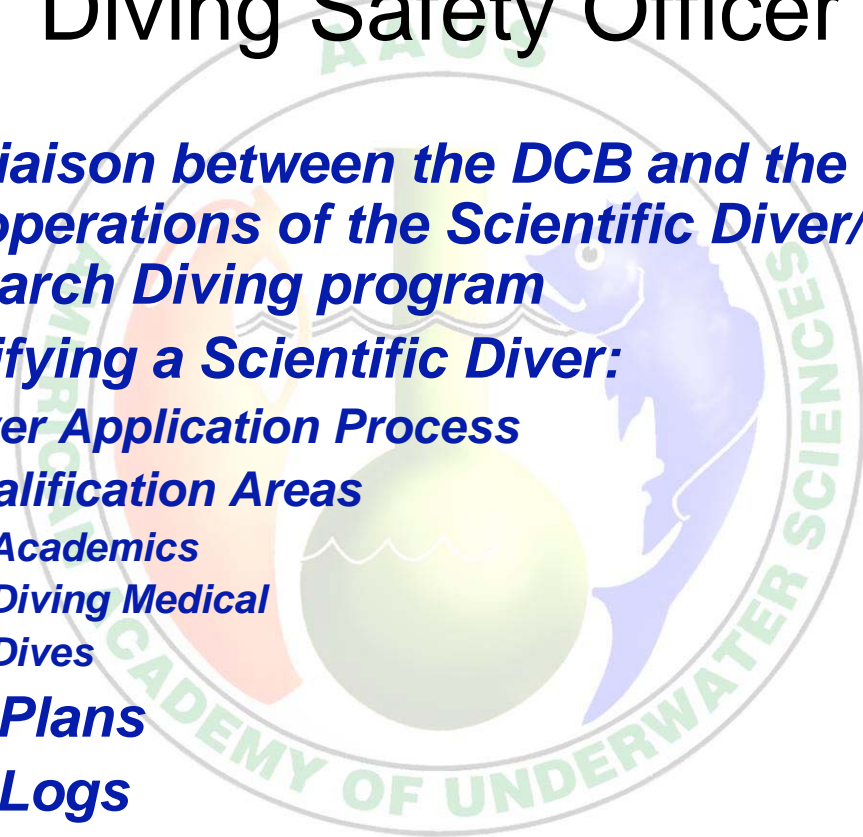
- 1 logged dive every six months
- 12 logged dives per year
- Hold current certification in CPR, First Aid and O2 Administration
- Approved Diving Medical Examination within specified age requirements

AAUS RECIPROCALITY

- *Based on the idea that all AAUS OM are training to the same minimum AAUS Standards.*
- *This process allows interaction between AAUS OM programs with minimum overlap in paperwork and training.*
- *This process usually utilizes the “Letter of Reciprocity” which is a verification of training.*
- *Some AAUS OM may require additional steps to be taken before full reciprocity is granted.*
- *Contracts providing reciprocity may be established with outside organizations – (e.g. – NOAA, NPS)*

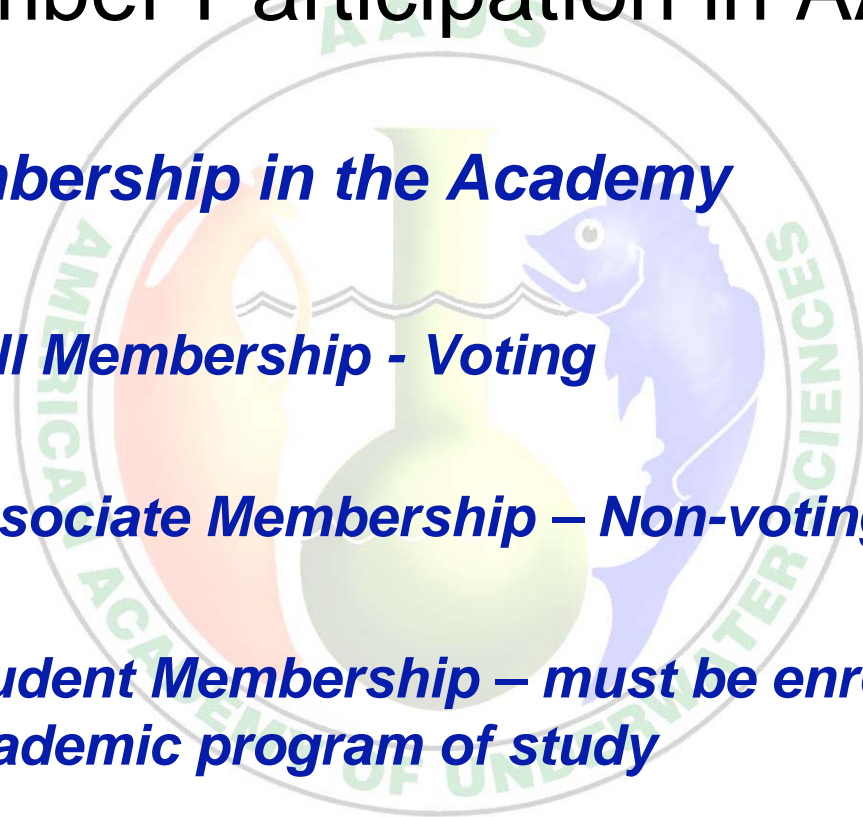
Diving Safety Officer

- ***The liaison between the DCB and the day to day operations of the Scientific Diver/ Research Diving program***
- ***Qualifying a Scientific Diver:***
 - ***Diver Application Process***
 - ***Qualification Areas***
 - ***Academics***
 - ***Diving Medical***
 - ***Dives***
- ***Dive Plans***
- ***Dive Logs***



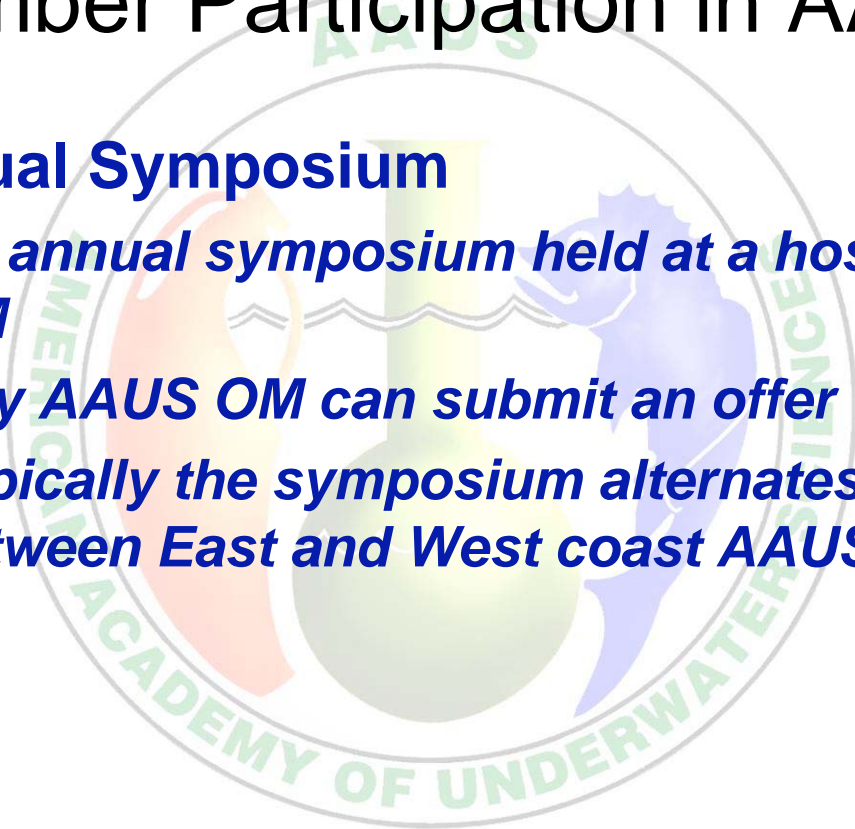
Member Participation in AAUS

- ***Membership in the Academy***
 - ***Full Membership - Voting***
 - ***Associate Membership – Non-voting***
 - ***Student Membership – must be enrolled in academic program of study***



Member Participation in AAUS

- **Annual Symposium**
 - *An annual symposium held at a host AAUS OM*
 - *Any AAUS OM can submit an offer to host*
 - *Typically the symposium alternates between East and West coast AAUS OM's*



Member Participation in AAUS

- **AAUS Web Site www.aaus.org**
 - *The AAUS Web Site is the nexus for all AAUS business and information exchange.*
 - *It consists of a Public Access area and a members only area known as the Member Clicks (MC).*
 - *MC areas are password protected and offer an increasing number of functions.*

MemberClicks - Login - Microsoft Internet Explorer

File Edit View Favorites Tools Help


Back Forward Stop Home Search Favorites Refresh Print Mail News RSS Feeds

Address <http://www.aaus.org/mc/page.do> Go Links

Google Go Bookmarks 0 blocked ABC Check Look for Map AutoFill Send to Settings

Adobe Y! Search Web Get IE7 now! Mail Shopping My Yahoo! Answers

Website Management Admin Options



AMERICAN ACADEMY OF UNDERWATER SCIENCES

SCIENCE DIVING STANDARDS PROGRAMS

Login > Contact Administrator :

| | |
|--|--|
| About AAUS > | Common > Login |
| My AAUS > | LOGIN |
| Directory > | WELCOME TO THE AAUS WEB SITE. |
| Proceedings-Advanced Diving Workshop > | If you are a guest , please feel free to browse the public areas of our Web site. If you are a member , please log in below to access the members-only areas. |
| Community > | <ul style="list-style-type: none"> Your Individual Record Username is your first initial and last name (no spaces). Your Password is the password you provided when you applied to AAUS. You may change your password once you are logged in by going to My Profile. Note: If you are trying to access your Organizational Record, you must use the Organizational login information, not the login for your Individual Record. Organizational Members login at the following link to enter your diving statistics: http://www.aaus.ecu.edu/omservices1.cfm |
| Annual Symposium > | |
| Memberships > | |
| AAUS Scholarships > | |
| AAUS Raffles > | |
| Other Scholarships > | |
| Corporate Sponsorship > | AAUS at Dauphin Island Sea Lab, 101 Bienville Blvd, Dauphin Island, AL 36528 Phone 251-861-7504 Email aaus@disl.org |

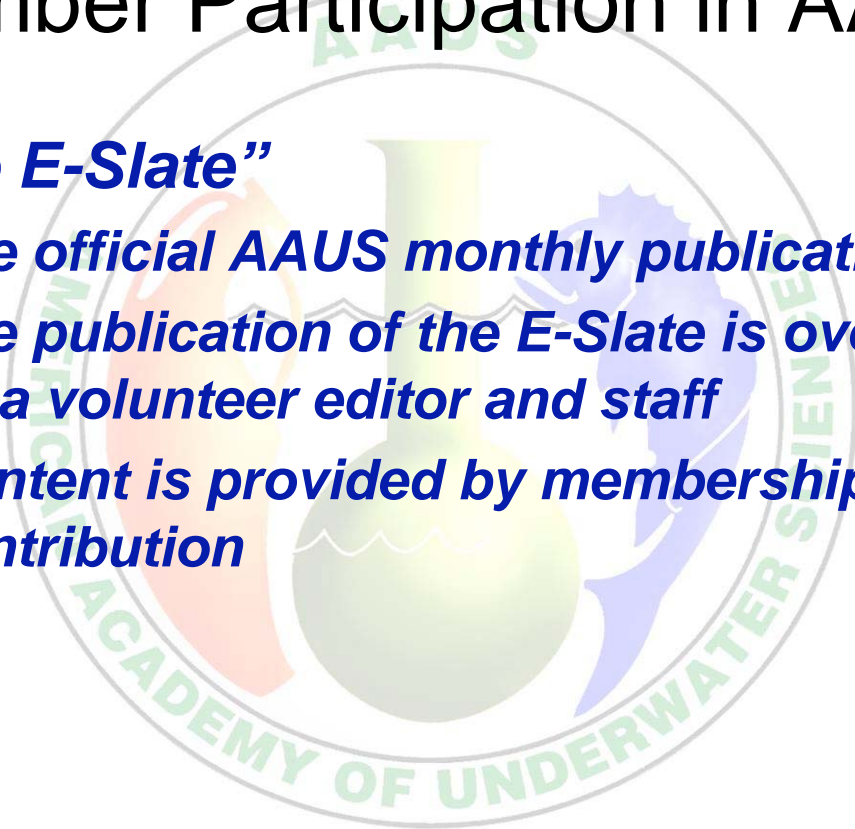
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Member Participation in AAUS

- **AAUS MemberClicks (MC)**
 - *Functions necessary to conduct Academy business will be found in one of the following MC cubicles:*
 - *AAUS BOD and Administrative Access*
 - *Diving Safety Officer Access*
 - *AAUS OM Services – AAUS OM Rep Access*
 - *Individual Members' Access*
 - *AAUS Corporate Sponsor Access*

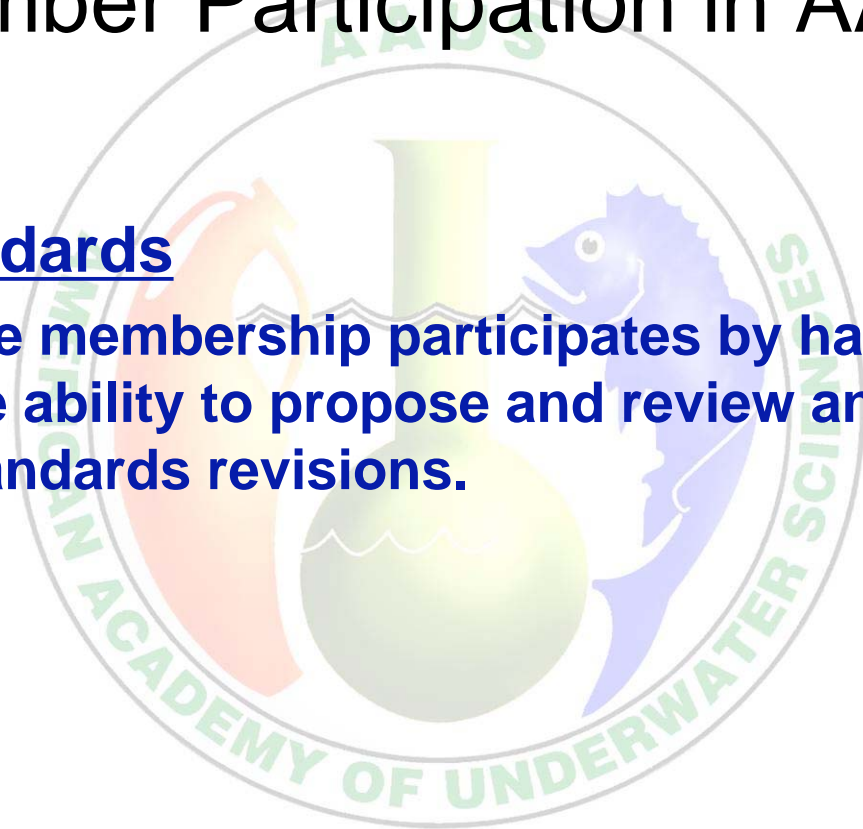
Member Participation in AAUS

- ***“The E-Slate”***
 - ***The official AAUS monthly publication***
 - ***The publication of the E-Slate is overseen by a volunteer editor and staff***
 - ***Content is provided by membership contribution***



Member Participation in AAUS

- **Standards**
 - The membership participates by having the ability to propose and review any standards revisions.



Member Participation in AAUS

- **AAUS Student Scholarships**

- **Kevin Gurr Scholarship**

Masters Level Student - \$2,500

- **Kathy Johnston Scholarship**

Ph.D. Level Student - \$2,500

<http://www.aaus.org/mc/page.do>





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Underwater Sciences***

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