

## ANIMAL BIOACOUSTICS SUBCOMMITTEE DEBUTS

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At the end of October, Accredited Standards Committee S3, Bioacoustics, approved the first-ever formation of a new subcommittee in the Acoustical Society of America (ASA) Standards Program. The new group is designated S3/SC 1 Animal Bioacoustics and its scope of work is:

Standards, specifications, methods of measurement and test, instrumentation and terminology in the field of psychological and physiological acoustics, including aspects of general acoustics, which pertain to biological safety, tolerance and comfort of non-human animals, including both risk to individual animals and to the long-term viability of populations. Animals to be covered may potentially include commercially-grown food animals; animals harvested for food in the wild; pets; laboratory animals; exotic species in zoos, oceanaria or aquariums; or free-ranging wild animals.

As described in the ANSI-Accredited Operating Procedures under which ASA's four standards committees operate, a Subcommittee has most of the responsibilities and rights of its parent committee. Unlike a Working Group, the Subcommittee is a "consensus body." It can vote to approve a standard that subsequently can be approved as an American National Standard by the American National Standards Institute (ANSI). As a consensus body, a Subcommittee is subject to the same requirements as its parent committee, including openness, balance, transparency, due process, and right to appeal. Like any of ASA's Accredited Standards Committees, the Subcommittee must maintain its own membership roster balanced by interest category and not dominated by any single interest. The Subcommittee is empowered to create and disband working groups that draft documents and provide other advisory services within the scope of work assigned to them by the Subcommittee.

The main benefit of forming this Subcommittee is that its voting members, who are responsible for any standards ultimately produced by the Subcommittee, will have a direct and material interest in Animal Bioacoustics rather than the more

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general, human-focused, subject matter of the parent committee, S3 Bioacoustics. This should result in a high-quality review of draft documents and ultimately in the production of standards that are useful to the scientific community and the world-at-large.

During the past several years, interest in standardization has begun to grow in the animal bioacoustics technical area. Standards Working Groups began to be formed in both S3 and S1 and although drafts have not reached the final ballot stage, work is progressing. As part of the ballot to form the Subcommittee, S3 voted to move the three existing working groups into the new Subcommittee, renumbering them and in one case assigning a new title and scope. S3/SC 1 have started operations with the following working groups:

- S3/SC 1/WG 1 Animal Bioacoustics Terminology
- S3/SC 1/WG 2 Effects of Sound on Fish and Turtles
- S3/SC 1/WG 3 Underwater Passive Acoustic Monitoring for Bioacoustic Applications.

There has been increased interest in Animal Bioacoustics over the last few years, especially in the areas of animal communication and detection, hearing sensitivity, and noise disturbance research. Experts in Animal Bioacoustics are drawn from many different technical areas such as biology, ecology, physics, environmental science, ocean engineering, and others. They often come to acoustics indirectly and may not share a common vocabulary with the acoustics community or even with each other. It is important that standards be developed for conducting field and laboratory work in Animal Bioacoustics so that data are uniform and research can be replicated. There are a number of aspects within the field of Animal Bioacoustics that could benefit from the establishment of standards, such as terminology, reporting of field protocols, field/laboratory equipment, sound metrics and frequency weighting curves, calibration, etc. One of the goals of the Subcommittee on Animal Bioacoustics is to develop standards that improve

**Table 1** – Membership of S3/SC 1 at its formation

Member Organization	Interest category
Acoustical Society of America	General interest
American Academy of Otolaryngology - Head and Neck Surgery	User
American Speech-Language Hearing Association	User
G.R.A.S. Sound & Vibration	Producer
International Association of Geophysical Contractors	Trade Association
U.S. Army Aeromedical Research Laboratory	Government
U.S. Army Construction Engineering Research Laboratory	Government

the quality, uniformity, and applicability of research so that resource managers and regulatory agencies can manage long-term sustainability of animal populations better.

The Chair of the new Subcommittee is David K. Delaney, of the U.S. Army Construction Engineering Research Laboratory (USACERL). USACERL is a long-time member of ASC S3 as well as S1 and S12. Mr. Delaney's work focuses on the potential impacts of human activities on threatened and endangered species on military installations and other federal lands. At the New Orleans meeting, Whitlow Au agreed to accept the position of Vice Chair. His work focuses on marine bioacoustics, especially dealing with dolphins and whales but including other species, with interest in hearing processes, sound production mechanisms, sound characterization, remote acoustic sensing and hearing capabilities.

Procedurally, membership in the Subcommittee mirrors membership in any of the ASA's existing Accredited Standards Committees. Membership is on an organizational basis (companies, professional societies, trade associations, government agencies, etc.), with each member appointing representatives empowered to vote on its behalf. In the case of the Subcommittee, members may also opt-in to select membership in ASC S3 if they have an interest in the work of the parent committee as well. Likewise the existing members of ASC S3 were offered the option of becoming members of the Subcommittee if they have sufficient interest in Animal Bioacoustics. At the close of the ballot, seven of ASC S3's twenty-one existing organizational members requested membership in the new group. Table 1 shows the founding members of S3/SC 1, along with their interest category. Immediately upon approval of the formation of the Subcommittee several other organizations expressed interest in joining. (The current membership roster of each ASC and Subcommittee administered by ASA can be viewed on the Standards Information page of the ASA website at <http://www.acosoc.org/standards/>.) Committee and Subcommittee members pay an annual fee based on the size and type of organization they are and how many committees they join. The membership fee helps ASA offset part of the cost of maintaining the Standards Program. Anyone who would like information about joining this Subcommittee should contact the ASA Standards Manager, Susan Blaeser, at [sblaeser@aip.org](mailto:sblaeser@aip.org) or 631-390-0215.

Participation in Standards Working Groups is open to subject-matter experts. There is no fee to participate in a Working Group and participation is not contingent upon affiliation with either an organizational member or ASA. The Standards Manager can provide information about working group membership, as well.

For information about any aspect of the ASA Standards Program, contact any of the following:

#### S1, Acoustics

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David Delaney has been a research wildlife biologist/bioacoustician working for the Engineering Research and Development Center (ERDC) at the Construction Engineering Research Laboratory (CERL) in Champaign, IL since 1998. He works primarily on threatened and endangered species, with an emphasis on human/wildlife conflicts. He has worked on a variety of terrestrially-based research projects across many different taxa (e.g., desert and gopher tortoises, Indiana and Gray bats, Red-cockaded Woodpeckers, Mexican and Northern Spotted Owls, Golden Eagles, etc.), primarily on military installations and Forest Service lands. His research provides information on baseline behavior and activity of animals and their potential response to military training operations and

other human activities. He is currently an Associate Member of the Acoustical Society of America, as well as a member of other organizations that deal with wildlife issues (National Military Fish & Wildlife Association, The Wildlife Society, Desert and Gopher Tortoise Councils, American Society of Mammalogists, National Wildlife Federation). Prior to working at ERDC/CERL, he worked for a variety of non-profit organizations and Universities investigating additional wildlife issues. He has undergraduate and graduate degrees from the University of New Hampshire and Northern Arizona University, respectively.



Susan Blaeser has served as Standards Manager at the Acoustical Society of America since 2001. In this capacity she is the Secretary to four ANSI-Accredited Standards Committees: ASC S1 Acoustics; ASC S2 Mechanical Vibration and Shock; ASC S3 Bioacoustics; and S12

Noise, as well as the newly formed Subcommittee, S3/SC 1 Animal Bioacoustics. She is also Secretary to two ISO committees: ISO/TC 108 Mechanical vibration, shock and condition monitoring; and ISO/TC 108/SC 5 Condition monitoring and diagnostics of machines. Finally, she administers eight ANSI-Accredited U.S. TAGs to ISO/TC 108 and all five of its subcommittees, ISO/TC 43 Acoustics and ISO/TC 43/SC 1 Noise, and one U.S. TAG for IEC/TC 29 Electroacoustics. As Standards Manager she is actively involved in the work of the committees, supports some 100 working groups, edits the standards produced by these committees, manages the office staff, and oversees the publication and sales program for American National Standards developed by these committees. Prior to working for ASA, she spent many years in non-profit management positions including serving as Managing Director for a regional charity and as Village Clerk-Treasurer for a New York State municipality. She is a graduate of Stony Brook University.