**Acoustic detection of Atlantic bottlenose dolphin (*Tursiops truncatus*) vocalizations using SSQ53F sonobuoys modified for autonomous data collection**

Carl A. Hager[1], Jenny Sturzbecher[1], Anu Kumar[2]

(1) Oceanography Department, United States Naval Academy, Chauvenet Hall, 572C Holloway Road, Annapolis, MD 21402, USA; hager@usna.edu
(2) Environmental Conservation - Marine Resources, Naval Facilities Engineering Command (NAVFAC) Atlantic, 6506 Hampton Blvd, Norfolk, VA 23508, USA

SSQ53F sonobuoys provide a reliable though expendable passive monitoring capability for both aircraft and surface Navy vessels. Acoustic data is transmitted from the buoy to a receiver system on either platform via selectable VHF frequencies. While this sensor has proven valuable in most marine mammal detection and localization applications, monitoring regions with significant VHF interference preclude continuous coverage.   The use of GPS tracked, autonomous recording packages, constructed from expended SSQ-53F hardware and hydrophones would best suit this purpose.   In August of 2010, five "spar buoy" packages were deployed during a three day visual and acoustic survey onboard the U.S. Naval Academy's 109 foot research vessel in the Virginia Capes Operating Area. Portions of the survey track were within 3 miles of the Virginia coastline and as expected, VHF interference was encountered. When deployed, the constant shallow omni-directional (CSO) hydrophone output voltage was recorded directly from the sonobuoy's Electronic Function System (EFS) circuit board at a 96 kHz sampling rate using a MicroTrack II digital recorder.   The system proved successful as numerous *Tursiops truncatus* vocalizations were detected. S onobuoy deconstruct, feasibility test methodology, and lessons learned will be presented.
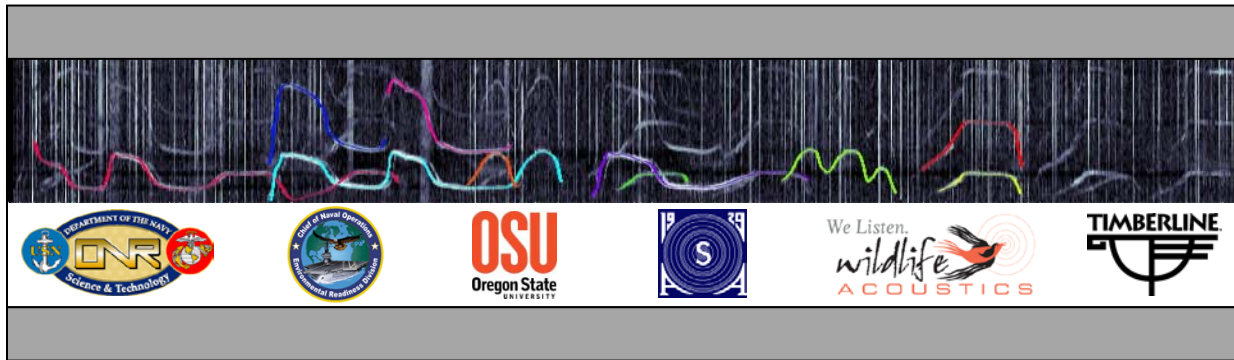
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ABSTRACTS

The abstracts for oral presentations and posters at the 5th International Workshop on Detection, Classification, Localization, and Density Estimation of Marine Mammals using Passive Acoustics, predominantly focus on odontocete sounds and analytical methods for classifying clicks and whistles, as well as density estimation. Research on baleen whale sounds and some non-cetacean marine mammals is also featured, and provides further information about important methodologies.

These biennial DCLDE workshops are intended for exchanging information that advances understanding of acoustic methods to detect, classify, locate, track, count, and monitor marine mammals in their natural environment. The goal is to encourage interdisciplinary approaches to solve real-world problems related to the study of marine mammals and the effects of human activities on their behavior.

ABSTRACTS ARE IN THE ORDER OF PRESENTATION