

Living Marine Resources Program Publishes Annual Report

Most Recent Report Highlights Program History & Current Efforts

THE LIVING MARINE Resources (LMR) program released its most recent annual report highlighting the program's many accomplishments in 2016.



For the third year in a row, the LMR program has issued an annual report which reviews the program's history, provides updates on completed and ongoing projects, introduces new projects and offers insights into what's ahead. The report also provides a list of publications that resulted from research either partially or fully funded by the LMR program.

The 2016 LMR annual report features the following ten "new start" projects:

1. **Hearing and Estimated Acoustic Impacts in Three Species of Auk: Implications for the Marbled Murrelet**
This project is defining the in-air and underwater hearing of three Auk species (as surrogates) to provide the data needed to predict the acoustic impacts on the hearing of the marbled murrelet. The resulting audiograms will provide the data and

training foundation for a Temporary Threshold Shift (TTS) response feasibility study.

2. **Cuvier's Beaked Whale and Fin Whale Behavior During Military Sonar Operations: Using Medium-term Tag Technology to Develop Empirical Risk Functions**
This LMR project is using high-resolution, medium-duration tags to record behavioral responses of Cuvier's beaked and fin whales during Navy exercises. The data collected can be used to support defensible risk functions for use in impact assessments.
3. **Frequency-dependent Growth and Recovery of TTS in Bottlenose Dolphins**
This LMR project will determine exposure levels corresponding to the onset of TTS across a broad range of frequencies, in limited number of bottlenose dolphins with full-range hearing. This will support developing TTS recovery models for use in acoustic impact assessments, as well as determine the relationship between TTS measured using behavioral methods and various auditory evoked potential methods.
4. **A Blainville's Beaked Whale Behavioral Risk Function for Hawaiian Populations**
This LMR effort will result in the publication of a risk function for Blainville's beaked whale at the Pacific Missile Range Facility and help to determine if there is a significant difference in the Blainville's risk function for distinct populations in different ocean basins.
5. **The Effects of Underwater Explosions on Fish**
On this LMR project, investigators are working with Navy Explosive Ordnance Disposal technicians to conduct field-based experiments for collecting the data needed to develop guidelines and threshold criteria for effects on fish resulting from exposure to underwater explosives.
6. **High Fidelity Acoustic and Fine-scale Movement Tags**
This LMR project team is building 20 new-generation digital tags (DTAG), originally developed with Office of Naval Research (ONR) funding, for researchers to field validate while concurrently collecting critical behavioral data.
7. **Extended Duration Acoustic Tagging of Right Whales**
This LMR project is testing a new attachment method for DTAG3s, using microtexture and biocompatible glues, to address the need for a longer-lasting attachment mechanism.



8. Proposed Acoustical Society of America (ASA) Standards on Towed Passive Acoustic Monitoring and Mitigation Systems

This project team is supporting the development of an ASA-sponsored American National Standards Institute standard on towed cabled passive acoustic monitoring systems and operations for monitoring and mitigation purposes. Successful implementation of this standard for towed arrays would provide a template for other passive acoustic monitoring technology standards as those technologies mature.

9. Developing Tools for Acoustic-only Behavioral Response Studies at Navy Instrumented Ranges

LMR investigators are participating in the development of the tools needed to efficiently conduct basic, acoustically-based behavioral response assessments. Project results will include three software packages to help analyze metrics of partner projects. (Partnering with ONR and U.S. Pacific Fleet)

10. Examining Factors That Could Influence the Acoustic Identification of Odontocete Species on Bottom-moored Recorders.

Project investigators are examining how species-specific signaling cues received at recorders at different depths are affected by the depth of the animals and receivers, distance of animals from the receiver and sound propagation, all of which could influence properties of received whistles and clicks, affecting classification results. (Partnering with ONR and U.S. Fleet Forces Command.)

The LMR program is sponsored by the Chief of Naval Operations Energy and Environmental Readiness Division

and managed by the Naval Facilities Engineering Command. The program provides important information for the Navy's at-sea environmental compliance and permitting processes. LMR addresses key Navy research needs and moves the results and technologies to the Fleet. Program goals include improving marine species impact analysis and monitoring capabilities.



A digital (pdf) version of all LMR annual reports published since 2014 can be downloaded from <http://greenfleet.dodlive.mil/environment/lmryir>. To obtain a hard copy of the 2016 and other LMR annual reports, contact Lorraine Wass at 207-384-5249 or ljwass@outlook.com. 

Mandy Shoemaker
 Naval Facilities Engineering and Expeditionary Warfare Center
 805-982-5872
 DSN: 551-5872
mandy.shoemaker@navy.mil

Join SERDP & ESTCP for an Upcoming Webinar

Promoting the Transfer of Innovative, Cost-Effective & Sustainable Solutions

THE STRATEGIC ENVIRONMENTAL Research and Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP) continues to offer their webinar series to promote the transfer of innovative, cost-effective and sustainable solutions developed by both programs.

These webinars provide end users with cutting-edge and practical information from sponsored research and technology demonstrations in an easily accessible format.

The series targets end users, including practitioners, the regulatory community and researchers. The primary objective of the series is to provide these end users with cutting-edge and practical information from sponsored research and technology demonstrations in an easily accessible format at no cost to participants.



Live webinars are held approximately every two weeks on Thursdays from 12:00 to 1:30 pm Eastern time. (Participants must register in advance at for all webinars.) Most webinars feature two 30-minute presentations and interactive Q&A sessions. Each webinar features distinguished speakers from one of SERDP and ESTCP's five program areas:

The Basics About SERDP & ESTCP

SERDP IS THE Department of Defense's (DoD) environmental science and technology program, planned and executed in partnership with the Department of Energy and the U.S. Environmental Protection Agency, with participation by numerous other Federal and non-Federal organizations. The program focuses on cross-service requirements and pursues solutions to the Department's environmental challenges while enhancing and sustaining military readiness.

ESTCP is DoD's environmental technology demonstration and validation program. Projects conduct formal demonstrations at DoD facilities and sites in operational settings to document and validate improved performance and cost savings. Demonstration results are subject to rigorous technical reviews to ensure that the conclusions are accurate and well supported by data.

For more information, visit www.serdp-estcp.org.



1. Energy and Water
2. Environmental Restoration
3. Munitions Response
4. Resource Conservation and Resiliency
5. Weapons Systems and Platforms

To register and view the most up-to-date schedule for upcoming webinars and access archived files of past

webinars, visit www.serdp-estcp.org/Tools-and-Training/Webinar-Series. Dates and topics for upcoming webinars are included below but are subject to change.

Following the completion of each live webinar, archives of the presentation and audio will be available online. [📎](#)

Jeffrey Houff
 SERDP and ESTCP Support Office
 703-610-2709
jeffrey.houff@noblis.org

DATE	TOPIC/SPEAKERS
September 7, 2017	Research and Development Needs for Management of DoD's PFAS Contaminated Sites <ul style="list-style-type: none"> • Ms. Maureen Sullivan Office of the Assistant Secretary of Defense for Energy, Installations and Environment • Dr. Andrea Leeson SERDP and ESTCP • Dr. David Sedlak University of California, Berkeley
September 21, 2017	Building Envelope Technologies <ul style="list-style-type: none"> • Dr. Ralph Muehleisen Argonne National Laboratory • Mr. Curtis Harrington Western Cooling Efficiency Center, University of California, Davis
October 5, 2017	New Resource Conservation Insights to Desert Environments <ul style="list-style-type: none"> • Dr. David Lytle Oregon State University • Dr. Christopher Castro University of Arizona
October 19, 2017	Laser De-Paint and Surface Preparation Mechanism and Technologies <ul style="list-style-type: none"> • Dr. Adrian Sabau Oak Ridge National Laboratory • Mr. Tom Naguy USAF Wright-Patterson AFB
November 2, 2017	Platforms for Underwater and Near-Shore Munitions Surveys <ul style="list-style-type: none"> • Dr. Dan Steinhurst Nova Research, Inc. • Dr. Greg Schultz White River Technologies
November 16, 2017	Environmental Restoration
December 7, 2017	Management of Novel Hawaiian Ecosystems <ul style="list-style-type: none"> • Dr. Susan Cordell USDA Forest Service • Dr. Rebecca Ostertag University of Hawaii at Hilo

Vice-CNO Recognizes FY16 Environmental Award Winners

Admiral Moran Honors 30 Winners Via Pentagon Video Teleconference

VICE CHIEF OF Naval Operations (VCNO) Adm. William F. Moran honored the 30 winners of the fiscal year (FY) 2016 Chief of Naval Operations (CNO) Environmental Awards during a video teleconference (VTC) ceremony held at the Pentagon on June 27.

Winners were recognized for their achievements in the following categories:

1. Natural Resources Conservation
2. Environmental Quality
3. Sustainability
4. Environmental Restoration
5. Cultural Resources Management
6. Environmental Planning
7. Afloat

Participating commands joined the ceremony from international locations stretching from Naval Station Rota, Spain and as far east as Japan with participation from Naval Air Facility Atsugi and Commander, Fleet Activities Yokosuka. Multiple domestic installations as well as U.S. Fleet Forces Command and U.S. Pacific Fleet also participated.

In addition to senior Navy and Department of Defense leadership, federal agency officials also participated in the Pentagon event including Deborah Nagle, director of water permits division at the U.S. Environmental Protection Agency and Catherine Marzin, acting deputy director of the Office of Protected Resources at the National Oceanic and Atmospheric Administration.

The ceremony also included non-government agency representation from the Coastal States Organization and Sierra Club.

“If we do our job poorly in environmental stewardship, we lose the trust and confidence of the American public and we are going to struggle even more for resources,” said Adm. Moran during his remarks. “This is an imperative that is critically important to the sustainability of our unit and the sustainability of that trust and confidence in the American public.”

If we do our job poorly in environmental stewardship, we lose the trust and confidence of the American public and we are going to struggle even more for resources.

—Admiral William F. Moran

Vice Adm. Dixon R. Smith, deputy CNO for Fleet Readiness and Logistics (N4), and Rear Adm. Lou V. Cariello, then-director of the CNO Energy and Environmental Readiness Division (OPNAV N45), assisted the VCNO by performing duties at the ceremony including highlighting



The VCNO Adm. William F. Moran, RDML Lou Cariello and VADM Dixon Smith hosted the FY16 CNO Environmental Awards VTC ceremony in the CNO's conference room.



The VCNO Adm. William F. Moran delivers closing remarks at the FY16 CNO Environmental Awards VTC ceremony.

support of our warfighting mission. If we don't take care of the environment, it becomes an encroachment issue and therefore you can't execute the mission," said Vice Adm. Smith during the ceremony's introductory remarks.

The CNO Environmental Awards program annually recognizes Navy installations, ships, individuals and teams for their significant achievements and contributions to environmental stewardship. More information can be found at <http://greenfleet.dodlive.mil/environment/awards/cno-environmental-awards>. [↕](#)

Photos by Chief Mass Communication Specialist Elliott Fabrizio

Navy-wide environmental stewardship and acknowledging each of the winners' accomplishments.

"I consider our stewardship and responsibility to the environment as one of the most important things we do in

Kenneth Hess
Chief of Naval Operations Energy and Environmental Readiness Division
703-695-5077
DSN: 225-5077
kenneth.hess@navy.mil

Everyone has a story to tell. Tell yours in *Currents*! The deadline for our winter 2017-18 issue is October 20, 2017.

Have some good news about your energy or environmental program? *Currents* is the place to tell your story. *Currents*, the Navy's official energy and environmental magazine, has won first place in the Navy's Chief of Information (CHINFO) Merit awards competition three times. It is people like you and the stories you submit that make *Currents* the best magazine in the Navy.

If you have a story that you'd like to promote in our winter 2017-18 issue, submit your text and images by Friday, October 20, 2017. Any submissions received after this date will be considered for our spring 2018 issue.

You can get a copy of the *Currents* article template by sending an email to Bruce McCaffrey, our Managing Editor, at brucemccaffrey@sbcglobal.net. This template has proven to be a tremendous asset in helping us edit and track your article submissions. Bruce is also available at 773-376-6200 if you have any questions or would like to discuss your story ideas. And don't worry. If writing isn't one of your strengths, we'll handle all of the editing necessary to get your submission into publishable form.

As a reminder, your Public Affairs Officer must approve your article before we can consider it for inclusion in the magazine.

Don't forget to "like" us on Facebook at www.facebook.com/navycurrents. *Currents*' Facebook page helps expand the reach of the magazine and spread the news about all the great work you're doing as the Navy's energy and environmental guardians.

Currents Deadlines

Winter 2017-18: October 20, 2017
Spring 2018: January 19, 2018
Summer 2018: April 20, 2018
Fall 2018: July 20, 2018

You can also refer to your 2016-18 *Currents* calendar for reminders about these deadlines.