



"Oceans of Opportunity" Education Symposium

Free of Charge

Saturday, September 17, 2011 8:30 AM – 4:00 PM

Hilton Waikoloa Village, Kona, Hawaii

Each year the Marine Technology Society (MTS) and the IEEE Oceanic Engineering Society proudly present the OCEANS Conference. This is the largest international professional meeting and exposition devoted to the full spectrum of ocean sciences, technology, policy, engineering, and education. Taking place **September 19-22 in Kona, Hawaii** at the Hilton Waikoloa Village, OCEANS 2011 MTS/IEEE will be a major forum for ocean scientists, engineers, industry end users and suppliers, technologists, educators and researchers, policymakers, and the public throughout the world to present their latest research results, state-of-the-art technologies, future concepts, and innovative ideas to their peers and many others who may be involved in deciding what future opportunities may lie ahead for our ocean.

The OCEANS 2011 Conference has a continuous theme of ocean education and outreach throughout its week-long event, including a **free "Oceans of Opportunity" Education Symposium** on Saturday, September 17th, which will include full day and half-day sessions, lunch, and an Education Plenary on the Mariana Trench Marine National Monument. Topics for this Symposium include Pacific Corals and Climate Change, Sound in the Sea, and Ocean Exploration in the Mariana Trench Marine National Monument. A brief description of the Symposium offerings follows:

Pacific Coral Reefs and Climate Change Module Workshop

Dr. Laura Murray, Research Professor, University of Maryland Center for Environmental Science

This full-day professional development workshop will introduce educators of all grade levels to the Pacific Coral Reefs and Climate Change Module, following the National Park Service and COSEE Coastal Trends' educational module on Coral Reefs and Climate Change. The module was developed by a fellowship team that included Hawaiian high school teachers and University of Hawaii graduate and undergraduate students who synthesized National Park Service science and integrated cultural knowledge to produce the content.

Discovery of Sound in the Sea Workshop

Gail Scowcroft, Associate Director, Office of Marine Programs, URI Graduate School of Oceanography and Executive Director, National Centers for Ocean Sciences Education Excellence Network

This half-day professional development, to be presented as a morning and afternoon session, will provide opportunities for middle and high school level educators to make connections between the phenomena of underwater sound and their education activities. The science of underwater sound, the production of sound, and the impact of anthropogenic sound on marine life will be discussed as participants engage in related science activities. Online resources will be shared, including an audio gallery of the underwater sounds produced by animals, people, and the natural world. Participants will receive free CD-ROMS to use with their students.

Why Should We Explore the Mariana Trench Marine National Monument?

Paula Keener, Director, Education Programs, NOAA Office of Ocean Exploration and Research and Susan Haynes, Education Program Manager, NOAA Office of Ocean Exploration and Research

This half-day professional development, to be presented as a morning and afternoon session, will introduce middle and high school level educators to some of the reasons why ocean exploration and research are critical in the Mariana Trench Marine National Monument (MTMNM) through inquiry- and standards-based lesson plans that have been developed based on ocean exploration expeditions in the Monument area. Participants will be given ocean exploration curriculum materials and other resources to support the introduction of this exciting and engaging topic in their classrooms.

Luncheon Keynote

The Mariana Trench Marine National Monument: Science Exploration and Research

***Eric Breuer, Marine Monument Science Coordinator, and Heidi Hirsh, Natural Resources Management Specialist
National Marine Fisheries Service, Pacific Islands Fisheries Science Center***

Registration Deadline: Friday September 9, 2011. To register for the "Oceans of Opportunity" Education Symposium go to:

<http://www.oceans11mtsieeeekona.org/main.cfm/CID/45/EDUCATION-SYMPOSIUM/>

