

THE ORCA EYE-IN-THE SEA TO STUDY OCEAN WILDLIFE AND HELP SHAPE CONSERVATION ACTIONS

World's First Deep Sea WebcamTM To Record New Findings

Ft. Pierce, Florida -October 28, 2009 | The ORCA Eye-in-the-Sea, the world's first deep sea webcamTM, is once again exploring the dark depths of the Pacific Ocean providing new information about the wildlife that live there and ways to better understand and protect their fragile ecosystems. A collaborative effort between the Ocean Research & Conservation Association (ORCA) and the Monterey Bay Aquarium Research Institute (MBARI), the ORCA Eye-in-the-Sea, along with the sophisticated cabling that connects the camera to shore is providing scientists and the public with live video imagery never before available.

This past weekend, ORCA and MBARI researchers deployed a pig carcass as bait in front of the ORCA Eye-in-the-Sea to help determine the type and quantity of wildlife that exist in this part of the ocean. The ORCA Eye-in-the-Sea streams live video 24 hours a day which can be viewed on ORCA's website at www.teamorca.org/cfiles/eyeinthesea.cfm. The camera's recordings and discoveries will lead to better understanding of deep sea habitats and efforts to protect them from overfishing and destructive fishing practices.

"Our deep sea habitats are destroyed faster than we can learn about them," said Dr. Edie Widder, president and senior scientist, Ocean Research & Conservation Association, and developer of the ORCA Eye-in-the-Sea. "Deep sea trawling destroys fragile habit, including sponges, gorgonians and precious corals, some of which take more than one thousand years to grow and are the source of sustenance and protection for many ocean species. Our lifestyle to improve life on land is clear-cutting the forests of the ocean. This research now is providing new insights into the nature of life in the deep sea and we hope it will provide the public with a greater awareness of just how much life there is down there.

"The ORCA Eye-in-the-Sea technology," continued Dr. Widder, "brings to life the dark depths of the ocean, not just to researchers, but to everyone who cares about ocean habitat and its effect on our lives. Now, together, science, government, industry and the public are able to see, study and work in unison to help protect the ocean."

Deployed 22 miles from the California coast and 3,000 feet (900 meters) deep at the end of MBARI's cable, the camera uses red light to unobtrusively illuminate its field of view. Most deep sea wildlife cannot detect red light, so animals living in this realm of total darkness are not frightened by the camera.

“In the past we have explored the deep ocean by dragging nets or driving noisy submersibles with powerful white lights that frighten most wildlife away. The ORCA Eye-in-the-Sea sits quietly on the bottom, observing wildlife with almost no disturbance to their typical behaviors,” added Dr. Widder.

A few months ago, ORCA and MBARI conducted a similar experiment with the carcass of a seal. This research explored the behavior of deep sea scavengers and shed light on the distribution of various forms of wildlife including hagfish which produce a slimy substance intended to encapsulate carcasses that fall from the surface in an attempt to ward off other hungry animals.

This new experiment with a pig carcass also may interest forensic experts, according to Dr. Widder. Since pigs portray some similar biological characteristics to humans, the video may allow forensic scientists to better understand how human bodies decompose and are scavenged at ocean depths.

The ORCA Eye-in-the-Sea is a programmable camera and recording system that can be placed on the sea floor and left indefinitely to observe animal life in these dark depths with as little disturbance as possible. The ORCA Eye-in-the-Sea is powered by the Monterey Accelerated Research System (MARS), a deep sea cable system which supplies power to instruments on the ocean floor and allows researchers to run experiments and collect data via computer. The MARS ocean observatory provides researchers with the equivalent of an electrical substation and Internet hookup deep below the surface of Monterey Bay. These efforts are both funded in part by the National Science Foundation.

The ORCA Eye-in-the-Sea’s live video feed to the web requires expensive broadband capability not covered by existing grants. ORCA is seeking donations from individuals to help pay for these live video feeds and the research it conducts to help protect ocean wild life and habitat. Those interested in supporting ORCA’s Eye-in-the-Sea program can contribute online at www.teamorca.org or mail donations to ORCA, 1420 Seaway Drive, Fort Pierce, FL, 34949.

The Ocean Research & Conservation Association (ORCA) is dedicated to the study and protection of marine ecosystems and the species they sustain through the development of innovative technologies and science based conservation action. An IRS 501(c)(3) nonprofit corporation, ORCA operates from two Florida locations: the Duerr Laboratory for Marine Conservation housed within the Indian River State College on the Fort Pierce Inlet and ORCA’s Conservation Technology Center in Port St. Lucie. Learn more about ORCA’s innovative conservation technologies at www.teamorca.org.

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OCEAN RESEARCH & CONSERVATION ASSOCIATION, INC.

Duerr Laboratory for Marine Conservation • 1420 Seaway Drive • Fort Pierce, FL 34949 • phone 772-467-1600 • fax 772-467-1602

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The Monterey Bay Aquarium Research Institute (MBARI) is a nonprofit research institution where scientists and engineers work together to explore and study the sea. In the words of founder David Packard: "The mission of MBARI is to achieve and maintain a position as a world center for advanced research and education in ocean science and technology, and to do so through the development of better instruments, systems, and methods for scientific research in the deep waters of the ocean." MBARI scientists and engineers conduct multidisciplinary research in a variety of fields, including marine biology, marine chemistry, marine geology, physical oceanography, and marine technology. Located in Moss Landing, California, MBARI is supported primarily by the David and Lucile Packard Foundation.

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