

Science Leader Delves into the 'Once and Future Ocean' at Scripps Oceanography

Paul Falkowski to present April 20 free public lecture on humanity's intimate ties to the ocean

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WHAT: Paul Falkowski, board of governors' professor at Rutgers University, will present "The Once and Future Ocean," a lecture describing the ocean's fundamental role in Earth's history and in humanity's future, during the 10th annual Roger Revelle Commemorative Lecture, presented by the Ocean Studies Board, part of the U.S. National Research Council.

A newly appointed adjunct professor of biology at Scripps Institution of Oceanography at UC San Diego, Falkowski is based at the Institute of Marine and Coastal Sciences and the Department of Earth and Planetary Science at Rutgers University. His current research efforts are directed toward understanding the co-evolution of biological and physical systems.

• **THE PRESENTATION IS FREE AND THE PUBLIC IS INVITED** •

WHEN: Monday, April 20, 2009, 4:30 p.m.

WHERE: Robert Paine Scripps Forum for Science, Society, and the Environment (Scripps Seaside Forum), a new complex at the south end of the Scripps Oceanography campus; 8610 Kennel Way, just north of El Paseo Grande in La Jolla.

BACKGROUND: The ocean has been a feature of Earth's surface for at least 4 billion of the past 4.5 billion years, and has provided the primary environment for the evolution of microbes that drive the biogeochemical cycles on Earth. Over this long period of time, the ocean has witnessed extreme changes, ranging from complete coverage with ice to extensive periods when there was no ice at all; periods of extraordinary extinction of animal life, to periods of dramatic evolutionary radiation of animals.

Throughout all of Earth's history, the ocean has served as the primary backbone of life on the planet and core metabolic processes have been successfully transferred across vast stretches of geological time. Humans, in contrast, evolved only about 200,000 years ago and in that short period of time have come to successfully outcompete and plunder many of Earth's living resources. Over the past 100 years in particular humans have increasingly altered the ocean.

"While human impacts will surely alter ecosystem functions, the core metabolism of the ocean will go on," said Falkowski. "Rather, ironically, humans are the fragile species that will lose capabilities of using the ocean as a source of food and novel molecules. Our future is intimately tied to that of the ocean. We have to begin viewing the oceans as a key component of the earth system; one that we cannot live without."

The Revelle Lecture was created by the Ocean Studies Board to honor former Scripps Oceanography Director Roger Revelle for his contributions to ocean sciences and his dedication to making scientific knowledge available to policymakers. Falkowski's presentation is the second Revelle Lecture given on both the West and East Coasts. Falkowski also gave this presentation on March 17 at the Smithsonian National Museum of Natural History in Washington, D.C.

Roger Revelle (1909-1991) was director of Scripps Oceanography from 1951 to 1964. He was one of the nation's most prominent oceanographers, a pioneer of climate change research and a world leader in the application of science and technology to help solve problems in developing countries. Long associated with the University of California, Revelle's vision and energies led to the establishment of the UC San Diego campus in 1960.

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