

Scripps' Paul Dayton Honored with New Ecology Prize from Spain

Prominent biological oceanographer to receive first Margalef Prize

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Paul Dayton, a biological oceanographer at Scripps Institution of Oceanography, University of California, San Diego, will be the first recipient of a new international ecology prize awarded in honor of one of the field's founding fathers.

The Autonomous Government of Catalonia in Spain will present Dayton with the Ramon Margalef Prize in Ecology and Environmental Sciences in a ceremony to take place in Barcelona on Jan. 18. The prize includes a monetary award of 100,000 euros (about \$121,000).

A jury of scientists representing Catalonia, the European Union and the rest of the international ecology community chose Dayton for the award, citing a career of research milestones that have helped set the course for subsequent research within the entire field of ecology. The Catalan government created the prize to honor Ramon Margalef i Lopez, a renowned University of Barcelona researcher who died in May 2004.

As a member of the Biological Oceanography Curricular Group within the Integrative Oceanography Division at Scripps, Dayton has focused his research on coastal, estuarine and Antarctic habitats over the course of a 35-year career at Scripps. In groundbreaking fieldwork on rocky shore habitats off the coast of Washington, he created an empirical means of understanding how major forces like competition and disturbances affect the spatial variability of marine organism communities. The results of his studies have become bedrock principles of ecology.

Dayton's work over the years has afforded him a global view of biological systems. He is an expert on California nearshore habitats as well as Antarctic seafloor ecosystems. In addition he has spent much of his career documenting the environmental effects of overfishing and has performed seminal studies on the effects of climatic episodic events like El Niño on coastal habitats, especially kelp forests.

Enric Sala, a marine biologist at Scripps who is a colleague of Dayton's and a former student of Margalef's, described the prize's first recipient and its namesake as classic generalists. Through their careers, they shared a broad perspective that enabled them to contemplate the big-picture workings of ecosystems virtually anywhere on Earth. Both have demonstrated a gift for motivating students to explore the natural world, said Sala.

"Paul Dayton is one of the last true naturalists, a scientist who thinks broadly, a poet of science in Margalef's terms. Paul knows how ecosystems function from the Arctic to the Antarctic, from coral reefs to kelp forests, from the Sierras to the desert," said Sala, who serves as deputy director of the Center for Marine Biodiversity and Conservation at Scripps. "We at Scripps are very fortunate to have as a colleague one of the most extraordinary ecologists worldwide."

Fellow Scripps biological oceanographer Lisa Levin credited the combination of Dayton's work on the influence of disturbances on ecosystems with his ability to inspire a spirit of discovery in others for creating a legacy of awareness and care for ecosystems whether marine or terrestrial.

"The whole of humanity will eventually gain from Paul's overwhelming resolve to direct science towards sustaining and conserving marine ecosystems," Levin said.

Dayton's zeal is another quality shared with Margalef, colleagues said. The Spanish researcher helped to usher in an era that saw ecology become a distinct science. In the mid-1940s, he emerged from the Republican army into which he had been drafted during the Spanish civil war to launch groundbreaking studies of phytoplankton communities in lakes. From there, he went on to forge ecology as an independent field engaged in the study of biological systems. His 1974 work, *Ecologia*, went on to become the textbook of ecology through much of the Spanish-speaking world.

"Some of his ideas developed in the 1950s are only now being understood and applied," noted Sala. "He was a poet-scientist, a naturalist, a generalist, a broad thinker, who created a phenomenal school and trained many world-class scientists."

The prize adds to many honors bestowed upon Dayton over his career. He is the only person ever to have won both the George Mercer and William Cooper awards from the Ecological Society of America. He received the 2004 E. O. Wilson Naturalists Award from the American Society of Naturalists and a Scientific Diving Lifetime Achievement Award from the American Academy of Underwater Sciences in 2002. He has also served as a director of the Ocean Conservancy and the National Research Council Panel on Marine Protected Areas.

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