

Duffy and Lipcius Receive Leopold Fellowships

Two VIMS faculty members—Drs. Emmett Duffy and Rom Lipcius—are among 18 environmental scientists from the U.S. and Canada who have been awarded 2006 Aldo Leopold Leadership Fellowships.

As Leopold Fellows, Duffy and Lipcius will participate this year in two intensive week-long training sessions designed to promote effective communication of science beyond traditional academic audiences.

“Academic scientists often lack the special communication skills necessary to give decision makers the information they need to address pressing environmental challenges,” says Stanford University Professor Pamela Matson, who chairs the Leopold program’s advisory committee. “The Leopold Leadership Program provides them with critical skills and intensive training to do so more effectively.”

The Leopold program, based at Stanford University’s Woods Institute for the Environment, is named after the influential American conservationist Aldo Leopold, who helped lead the movement for wilderness preservation in the United States and was instrumental in defining modern environmental ethics. Leopold is author of *A Sand County Almanac*, one of the classics of American environmental literature.

Duffy is a marine ecologist whose current research uses experimental seagrass beds to explore how the loss of biodiversity might affect the Chesapeake



Drs. Emmett Duffy and Rom Lipcius.

Bay ecosystem (see page 2). Lipcius is an expert on the ecology and management of the Bay’s blue crab stocks. Both researchers will have ample opportunity to use Leopold training during their frequent interactions with policy makers, watermen, resource managers, and journalists.

Duffy says he looks forward to the training because he thinks it will help him to “fight for the objectivity of science and the role of rational thinking in decision-making.” “The training sessions give participants the language and means of communication to do that,” says Duffy. “It will help to bring us down out of the ‘Ivory tower’ and begin talking more effectively with people in the community.”

Lipcius echoes those sentiments. “As scientists, we typically don’t get training to communicate with general audiences or to negotiate. The Leopold

training will help me become a more effective conservationist by improving my ability to help shape conservation and restoration strategies for blue crabs and oysters in the Bay.”

VIMS is the only institution with two faculty members selected for the 2006 awards. Other recipients hail from Colorado State University, Oregon State University, Stanford, Texas A&M, the University of British Columbia, University of California, University of Hawaii, University of Washington, University of Wisconsin, and the Woods Hole Oceanographic Institution.

“The selection of not one but two of our faculty members for this prestigious fellowship reflects very highly on the quality of our efforts in advisory service, education, and research,” says VIMS Dean and Director John Wells.

Leopold fellows are selected through a competitive application process open to mid-career academic environmental scientists in the U.S., Canada, and Mexico. They are expected to use their training to enhance their professional activities both within and outside the scientific community, and to incorporate components of the training into their undergraduate and graduate courses and other outreach activities.

Following their training, Duffy, Lipcius, and the 16 other 2006 fellows will become part of the Leopold Leadership Network, a developing “community of practice” of 100 academic scientists and past fellows who are skilled communicators of scientific information to policy makers and other non-scientists on a wide range of pressing environmental issues.

The Leopold program was founded in 1998 by Jane Lubchenco, distinguished professor of zoology at Oregon State University, and is funded by the David and Lucile Packard Foundation.

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presumably because the animals can move where they want to.”

Adding mobile animals to an experimental system is a major undertaking, and helps explain why it has rarely been done in previous experiments.

“As soon as you add another level of interaction, the whole thing gets much more complicated,” says Duffy. “That has been a really big reason why people haven’t tackled it.”

The logistics of working with plants is relatively easy. Seeds are readily available through scientific catalogs. A researcher can order seeds from several different kinds of plants, sow a plot, then return repeatedly to monitor the plants as they grow and interact.

France and Duffy, on the other hand, have to find and collect their animals in the field, then keep track of them as they move within and between their experimental tanks. “What’s always the biggest problem in setting up the experiment,” says Duffy, “is finding enough ‘bugs’ of different kinds.”

The amphipods or “bugs” that France and Duffy use for their experiments are common inhabitants of Chesapeake Bay’s seagrass beds. Related to beach fleas and more distantly to pill bugs, these small creatures play a key role in seagrass ecology by eating the

algae that would otherwise grow on seagrass blades, thereby helping to allow passage of the sunlight that the grasses need for photosynthesis.

Amphipods are ideal creatures for experimental studies of biodiversity, says France. “Our system is really tractable for looking at animal diversity because the critters we use are big enough to see with the eye and tell apart live, and yet at the same time they make babies quickly.”

France says that the take-home message from her research is that there is an important spatial component to biodiversity and its effects on ecosystem processes.

“We need to be conscious about scaling-up the research we’ve done in isolated patches to making predictions across landscapes. There are important things about landscapes, such as patchiness and connections through dispersal and disturbance. Those processes can affect both the magnitude and stability of the ecosystem services that we rely on.”

“Because the spatial component is so important,” she adds, “it’s essential to do these kinds of experiments with animals, because they interact with their habitats in a more complex way. Sometimes that can undermine completely what we have expected from theory.”

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Menhaden
This site describes how VIMS researchers are working to provide the data needed to manage Chesapeake Bay menhaden stocks in a sustainable manner (see p. 1). Visit www.vims.edu/menhaden

CORSACS
This site provides information on the VIMS-component of the NSF-funded CORSACS project. CORSACS, for Controls on Ross Sea Algal Community Structure, is a multi-institution study of how iron, sunlight, and carbon dioxide combine to determine the make-up of algal communities in Antarctica’s Ross Sea. Visit www.vims.edu/bio/corsacs/

Vessel Calendars
VIMS researchers are now able to schedule vessel usage on-line via www.vims.edu/admin/vessels. The site also allows vessel operators to download a safety-procedure checklist; the VIMS Vessels Operation, Training, and Safety Policy; and a Liability Release Form.

Postcards
Want to send someone a special card? Visit www2.vims.edu/greetings to choose an electronic postcard that shows your concern for the environment and your interest in VIMS. Then e-mail the card to the person you designate.