The Crest

Chesapeake Bay National Estuarine Research Reserve Announces **Educational Programs for Summer 2003**

High School Student Multi-day Programs

June 16 – 20: Aquatic Habitat Restoration: Submerged Aquatic Vegetation, Salt Marsh, and Oyster Reefs. This 5-day program is sponsored and run in cooperation with the Gloucester Courthouse Rotary Club. Students are housed in dormitories at Christ Church Academy on the banks of the Rappahannock River and will spend five days investigating aquatic SAV, salt marsh, and oyster reef habitats by boat, canoe, and wading. Students will also learn about the latest restoration techniques used to increase the amount of these important estuarine habitats. The program, including all meals, transportation and housing, is free to qualified students.

July 19-25 and August 9-15: Blue Crabs and the Blue Crab Fishery in Virginia. The first 5 days of these 7-day programs will be based at VIMS' Gloucester Point campus, with students meeting from 9-5pm. The last 2 nights will be residential with students living in the dormitory at the VIMS Eastern Shore lab in Wachapreague, Virginia. Students will gain first-hand understanding of blue crab biology and the complexities and far-reaching social and ecological impacts of blue crab management in

Virginia through field studies and interactions with VIMS scientists and graduate students, Virginia Marine Resources Commission (VMRC) managers, crab-house owners, and local watermen. Canoes, small boats, and intertidal wading will be used for field studies and field exploration. Students must be able to get to and from the VIMS Gloucester Point campus during the first five days of the program. These programs, including all meals, transportation, and dormitory fees while at the Wachapreague lab are free to participants thanks to a grant from the National Oceanic and Atmospheric Administration.

All high school students are encouraged to apply for these pro-

Teacher Training **Programs**

June 24 - 27 and July 8-10: Restoration on the York River: Oysters, Riparian Buffers, and Submerged Aquatic Vegetation. VIMS' restoration scientists will use field studies and classroom presentations to impart timely information about the biology, ecology, current status, and restoration of oyster, riparian buffers, and submerged aquatic vegetation habitat in the York River and the Chesapeake Bay. The course will run

from 8-4 each day, allowing local teachers to go home during evenings. Accommodations at the VIMS campus may be available for teachers that live prohibitively far away. The courses are free to participants thanks to a grant from the Chesapeake Bay Restoration Fund (Chesapeake Bay license plates). Graduate credit through the College of William and Mary School of Education may be available, although details are not yet final.

August 21: Estuarine Aquarium Keeping. This one-day program at VIMS' Gloucester Point campus will introduce teachers to keeping Chesapeake Bay fish and crabs in the classroom. Instructors will cover the basics of bay water aquarium-keeping including planning and purchasing, aquarium set-up, operation, feeding,

and maintenance. Participants will capture fish, crabs, and shrimp from the York River to set up a demonstration tank. Please note that this class is not intended to cover keeping tropical fish or corals. We will instead cover how to maintain hardy Chesapeake Bay organisms using simple aquarium filters and air stones.

All teachers are encouraged to apply for the professional development courses. All courses are free although participants will have to pay for the graduate credits if they choose to take the courses for credit.

Students and teachers should contact Bob Carroll at the Chesapeake Bay National Estuarine Research Reserve at bcarroll@vims.edu or 804-684-7526 for more information or application materials.



Ducklow Elected AAAS Fellow

Dr. Hugh Ducklow, Glucksman Professor of Marine Science in VIMS' Department of Biological Sciences, was recently elected a Fellow in the American Association for the Advancement of Science (AAAS). This award of distinction is bestowed to scientists for their efforts toward advancing science or fostering applications that are deemed scientifically or socially distinguished. Ducklow was recognized for his fundamental studies of ocean bacteria and for dedicated

leadership of major oceanographic programs.

In addition to his research, Ducklow has served as Chair of the Steering Committee of the U.S. Joint Global Ocean Flux Study and is currently Chairman of the International Steering Committee for the Joint Global Ocean Flux Studies program.

Founded in 1848, AAAS has more than 134,000 members from 130 countries. The tradition of AAAS Fellows began in 1874.

Workshop Series Targets Charter Boat Operators

VIMS' Marine Advisory program is working with other mid-Atlantic Sea Grant programs to host a series of workshops for the charter boat industry, aimed at helping operators succeed in a changing business environment. The workshops will be held from the Virginia-North Carolina border to Long Island, New York during February and March when operators are most available to participate.

Panel discussions will focus on four theme areas that are important to charter boat captains, as gleaned from an industry-wide market survey. A fisheries management panel will discuss stock assessments and management plans as they relate to federal and state regulations and permits. The U.S. Coast Guard and representatives of the insurance and legal fields will cover business considerations related

to safety, personal and business insurance, and admiralty law. Another panel will discuss marketing strategies to help small business operators expand their customer base. The workshops will end with a "roundtable" of industry representatives.

Local workshops are scheduled as

- February 11-12: Chesapeake, Virginia / Contact Dianne Roberts, 804-684-7173
- March 11: Solomons, Maryland / Contact Dianne Roberts, 804-684-
- March 13: Ocean City, Maryland / Contact John Ewart, 302-645-4060

A \$25 registration fee covers lunch, 2 breaks, and educational materials. Pre-registration is strongly encouraged; walk-ins will be taken at \$35 as space allows.

VIMS Takes to the Air(port)

A new display in the main lobby of the Newport News/Williamsburg International Airport educates airport visitors about VIMS' mission of research, education, and advisory service. Built with private funds, the kiosk was designed by Public Relations Coordinator Susan Polk and Graphic

Design Supervisor Susan Stein. It includes numerous artifacts of public interest, including shark jaws, the shell of a juvenile loggerhead turtle and a blue crab, sediment cores, a zooplankton sample, and a super-sized DNA model that was assembled (down to the last CH₂ (methyl) group of thym-

A wave motif adorns the new VIMS airport display.

ine) by VIMS' own Ryan Carnegie, Lidia Sandoval, Mark Camara, and Drew Luellen on a volunteer basis. The display will run through the coming year. Almost 1 million visitors pass through the airport each year.