



From the Director's Office

HAPPY NEW YEAR

*By Ross Simons
Director, SERC*

This newsletter is largely devoted to student activities. What better time to focus on this than at the start of 2003, a new year in which SERC will continue its prominence as one of the major national centers for professional training with

About SERC

The Smithsonian Environmental Research Center (SERC) is dedicated to increasing knowledge of the biological and physical processes that sustain life on earth through interdisciplinary research and innovative education programs.

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activities that extend from the undergraduate level through post-doctoral positions? Developing the next generation of environmental scientists and enhancing environmental literacy for all students are important parts of our programs at SERC and the student internship projects highlighted in the "Intern Special" reflect the breadth and scope of SERC science. Equally important to our professional training are our activities focused on K-12 schoolchildren, both on site and increasingly through our distance learning program.

Groundbreaking for new dorm

A long-sought dream was realized by SERC on October 7 with the groundbreaking of our first student dormitory as part of our Green Village complex. A host of dignitaries, led by Smithsonian Secretary Lawrence Small and Maryland Governor Parris Glendening, participated in a commemorative celebration. It is expected that this first dorm will be ready for occupancy by early fall of 2003. Thanks to the generosity of a number of private donors and the assistance of the U.S. Congress, SERC will increase its capacity to serve more students on site with modern facilities and to further develop a sense of a 24-hour, seven-day-a-week research community. The rest of the Green Village consisting of a second student dormitory and residential facilities for long-term visitor collaborators is scheduled for completion over the next sev-

eral years. A major element of this support will come from the private sector and we continue to encourage those readers who may have an interest to contact our Development Office about giving opportunities.

Youth Watershed Summit

Last fall, SERC co-hosted the Youth Watershed Summit on our campus in Edgewater, MD. This event to commemorate the 30th anniversary of the signing of the Clean Water Act brought students, teachers, and parents from all 50 states and DC to SERC to learn more from our scientific and educational staff about the important role that watersheds play in our lives. In addition, the students had the opportunity to interact with national policymakers concerned with watershed issues in a series of lectures and encounters in Washington, D.C. For SERC this was yet another opportunity to have students learn through our experiential model and in turn share their insights with us.

Distance Learning 2003

Elsewhere in this newsletter you will see an announcement of our next major electronic field trip, designed to serve audiences in grades 1-9 with two separate programs next May. Focusing on the Smithsonian's research in mangroves in the Central American country of Belize, students will learn the importance of this often neglected but critically important wetland ecosystem. Our first electronic field trip in April 2002 reached over 20 million students. The

power of distance learning is only beginning to be harnessed by research institutions and I am proud to see our leadership position.

Finally, it is with sadness that I report the departure of Cathleen Drew from SERC. Catie was the longtime editor of

this newsletter and environmental educator extraordinaire. We wish her well in her new position with the National Park Service. I am pleased that Anna van der Heijden in our Education Department has agreed to serve as the new editor.

GROUNDBREAKING EVENT

Building for the Future

by Elizabeth Tait
staff writer Smithsonian Office of Public Affairs

"Today the dream becomes reality," SERC Director Ross Simons beamed during a recent groundbreaking at SERC, where two new dormitories will soon be built to house visiting scientists and students. The Oct. 7 event launched Green Village, a project which will eventually consist of two dormitories, six visiting scientist cottages, a Native Plants Material Learning Garden and a broad plaza surrounding the Jeanne C. Schmidt Conference Center that will connect the dormitories to SERC's main campus. The cost of the project, including renovation of the existing Schmidt Center and an endowment to cover building maintenance and operations, is \$7.8 million. Secretary Lawrence Small, Maryland Gov. Parris Glendening, Under Secretary for Science David Evans, Simons, Smithsonian Environmental Leadership

Council Chair Edward Vinson and SERC Advisory Board Chair William Sweeney were on hand to break ground for the new dormitories. Architrave P.C. Architects of Washington, D.C., designed the new dormitories to evoke Maryland's rich historical heritage, while incorporating "green building" features and state-of-the-art technology. In addition to individual rooms, each dormitory will have a common living area, kitchen facilities and shared baths.



Building for the future. From left to right: Deidre Duncan and Virginia Albrecht of Hunton & Williams, LLP; Victoria Jenkins, The Mills Corporation; Smithsonian Secretary Lawrence Small; Edward Vinson, Chair, Smithsonian Environmental Leadership Council; Jane Hickey, Public Strategies; David Evans, Smithsonian Under Secretary for Science and Robert DeCotiis, DeCotiis, Fitzpatrick, Gluck & Cole, LLP.

INTERNSHIP PROGRAM

Internship Endowment Fund Established

by Kim Sproat, Fellowship Coordinator, and James DeLorbe, Development Director



Mr. Holmberg

A generous gift from the estate of Mr. Roy C. Holmberg has established an Internship Endowment Fund at SERC.

The endowment fund is a major step forward in creating a stable financial base for SERC's Internship Program, which has traditionally relied on annual financial awards.

Mr. Holmberg attended the University of Michigan, receiving a Bachelor of Science from the School of Natural Resources in 1970, with plans to pursue a career in conservation work. While enrolled as a graduate student at the University, Mr. Holmberg was drafted and served in the United States Army as a Chaplain's Assistant at NATO Headquarters in Brussels, Belgium. After returning to the United States, he earned a Bachelor of Science in Computer Science and worked in the Data Center and in the Auditors Department of Cuyahoga County, Ohio, as a Senior Pro-

"Internship Endowment," continued on Page 4

Where the LAND and Sea Intertwine

EXPLORING THE COASTAL ECOSYSTEMS OF BELIZE

MAY 13: Mangrove Forests of Belize, Grades 5-9 MAY 15: Sea Turtles of Belize, Grades 1-6

by **Dottie Klugel, Distance Learning Coordinator**

Last April, SERC conducted its first live, satellite broadcast, *Where the River Meets the Sea: Exploring Life in the Chesapeake Bay with Smithsonian Scientists*. Some 20 million students in 19 different states viewed this very successful Electronic Field Trip (EFT), produced in partnership with Ball State University (BSU) and Project View (PV). Students interacted live with SERC scientists and educators through demonstrations, phone calls, and e-mails. Available along with the EFT was teacher-developed curriculum for use before, during, and after the broadcast.

Belize 2003

SERC, again with BSU and PV, has begun planning for its second EFT, *Where the Land and Sea Intertwine: Exploring the Coastal Ecosystems of Belize*, a two-day event in which students will join Smithsonian scientists to explore the mangrove, seagrass, and coral reef ecosystems of Belize (Central America). These three ecosys-



Dr. Ilka (Candy) Feller of the Smithsonian Environmental Research Center teaches mangrove ecology at a recent tropical ecosystem ecology field course in Belize. Among the students were teachers from high schools and middle schools in Belize and New York State.

tems are inextricably linked and the two-day program, live from Belize, will explore these connections and the factors that make these ecosystems unique.

Mangrove ecology and sea turtles

The first broadcast, on May 13, will focus on mangroves, the diverse communities of trees that grow in the intertidal zone of tropical coasts. Students will join SERC researcher Dr. Ilka Feller as she investigates the adaptations that allow them to live where the land and sea intertwine. The second broadcast, on May 15, will focus on sea turtles and their dependence on coastal ecosystems. Students will learn about the migration and life cycle of sea turtles, including their migra-

"Internship Endowment," continued from Page 3

gramming Analyst. An avid golfer, Mr. Holmberg's extensive library and interests ranged from astronomy, to environmental conservation, to coin collecting. He was a lively and informative conversationalist. A fan of the Cleveland Browns and the Cleveland Indians, Mr. Holmberg played hockey and enjoyed playing as a member of family and church bowling leagues.

Mr. Holmberg's gift to the Smithsonian is a legacy that will give future generations of like-minded individuals the opportunity to pursue a well-rounded life of academic inquiry.

The SERC Internship Program is a 10 to 16-week program offered to undergraduate and beginning graduate students. The Internship Endowment Fund will be used to support new intern appointments, intern activities, and attendance at national meetings. If you are interested in contributing to the Internship Endowment Fund, donations can be made of any size. Please direct your donations (checks payable to the Smithsonian Environmental Research Center) to:

Kimberly Sproat
Fellowship Coordinator
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P.O. Box 28
Edgewater, MD 21037
For details, please call
443-482-2217.

Internship Program web site:
www.serc.si.edu/internship.

tory stop along the coast of Belize.

For more information about the broadcasts and to find out how to register, go to www.serc.si.edu/education/dl.

News, Events and Announcements

“Across the Salinity Transition” SERC and University of Maryland receive NSF grant for collaborative research

Dr. Tom Jordon, Principal Investigator of SERC's Nutrient Chemistry Lab, received a grant from the National Science Foundation (NSF) for a three-year collaboration between SERC and the University of Maryland Center for Environmental Sciences. The project title is “Collaborative research: Across the salinity transition—Changes in nitrogen and phosphorus biogeochemistry along an estuarine salinity gradient.” The other two principal investigators are Jeffrey Cornwell and Walter Boynton of the University of Maryland. Anticipating three years of intense collaborations, the researchers have created a shortened name for the project, “Salinity, Nitrogen, and Phosphorus Interactions,” with the catchy acronym “SNAPI.” The SERC component of the SNAPI project is funded at \$478,092 for three years.

New Canoes for Wetland Ecology Program

Thanks to a generous grant by the Smithsonian's Women Committee, SERC has new canoes for its popular Wetland Ecology education program. With the funding from the Committee, the Education Department will also develop additional educational materials including a website connected to this program.

SERC trains MD Envirothon Teams

The Maryland Team gained the 14th place at the 2002 International Canon Envirothon, North America's largest high school environmental competition. The students had been trained in part by SERC's education and research staff, in particular on this year's “special issue” Introduced Species and Their Effect on Biodiversity. The 2003 Envirothon will be held in Maryland from July 26-31.

Training on DNR Stream Assessment Methodology

Ryan King and Darrick Sparks of the Phytoplankton Lab completed a training course with the Maryland Department of Natural Resources (MDDNR) on the methodology used in the Maryland Stream Biological Survey. The MDDNR methodology is used to sample streams included in the EPA Estuarine Indicators project.

Participation on Patuxent River Oil Spill Committee

SERC researcher Dr. Dennis Whigham completed participation on the Governor's Patuxent River Oil Spill Citizens Advisory Committee. The work of the committee has been completed and the final report will be sent to the Governor before the end of the year.



SERC's annual Open House on May 11 drew over a thousand people. At the Open House, visitors explored Chesapeake Bay ecology with guided boat trips and kids became SERC scientists for the day (see photo). Next year's Open House is planned for the second Saturday in May, 2003. (Photo by Roel Vermeulen)

Outstanding Student Presentation Award

Three interns from the Protistan Ecology Lab, Tamiaka Nicole Armstrong, Sarah Jardeleza, and Chaquetta Felton, participated in the 10th East Coast Conference on Protozoology held at Montgomery College in Rockville, MD. Tamiaka presented previous internship research and won an award for Outstanding Student Presentation.

DaimlerChrysler Donates Electric Car to Smithsonian

Through a generous donation by DaimlerChrysler, SERC is now the proud owner of a GEM vehicle, a Global Electric Motorcar. The battery-powered car creates no exhaust fumes. The car will be used by SERC's maintenance department.

Visitors and Staff Changes

Education Department: Cathleen Drew has left the Education Department to start a new position as a Park Ranger for the National Park Service. Drew had worked at SERC for 11 years during which she was responsible for developing new education programs and ensuring that all school field trips to SERC ran smoothly and were fun yet educational experiences for the students. Drew was well known and liked by teachers in Maryland, Virginia, and Washington, D.C. who have visited SERC in recent years. The Education Department wishes her all the best in her new job.

The Education staff would like to welcome Jane Holly to SERC. Mrs. Holly has been a docent actively leading and orienting school groups on their field trips to SERC. She holds a Master's Degree in Education and has been a teacher in math and science during most of her professional career. Schools interested in SERC's hands-on environmental science education programs can contact Jane Holly at 443-482-2216 or hollyj@si.edu.



Dr. Dennis Whigham (left) and Dr. Pat Megonigal at a World Wildlife Federation demonstration project to promote wetland restoration in Dongting Lake, China. The two SERC scientists attended a meeting from 8-18 September 2002 on "Wetland Restoration and Management: Addressing Asian Issues Through International Collaboration." Their research was the subject of separate invited presentations, and Megonigal was the chair of the scientific program committee.

Plant Ecology Lab: Melissa McCormick returned to the University of California at Berkeley in October to continue working with Dr. Tom Bruns and his colleagues on the phylogenetic relationships and ecology of orchid mycorrhiza.



Jane Holly

The *Plant Physiology and Biogeochemistry Laboratories* welcomed Laura Lipps in June as a Biotechnician. Ms. Lipps earned a B.S. in Biology from Earlham College, Indiana. She is contributing to two studies that seek to understand how rising atmospheric carbon dioxide levels will influence carbon cycling and sequestration in terrestrial ecosystems.

Nutrient Chemistry Lab:

Nicole Mitchell started in October as a technician in the Nutrient Chemistry Lab to work on the new NSF-funded "SNAPI" project (Salinity, Nitrogen, and Phosphorus Interactions) with Dr. Tom Jordan. Mitchell has just completed her Master's Degree at Notre Dame University.

Presentations & Publications

Visit SERC's web site at www.serc.si.edu to see the latest SERC publications.



Tune in to www.watershedradio.org

Did you know that Maryland, Virginia, Pennsylvania, West Virginia, Delaware, New York and Washington, D.C. are all part of the Chesapeake Bay watershed, the 64,000-square-miles area that drains into the Chesapeake Bay?

Listen to the daily Watershed Radio programs and visit the website to become an informed citizen of your ecological home.

Programs for January 2003 include a program about the "amazing toadfish," global warming, and snow fall in Chesapeake Bay watershed.

Stay tuned to learn about your watershed!

Celebrating 2002 The Year of Clean Water!

by Elizabeth Tait, staff writer
Smithsonian Office of
Public Affairs

From October 6-10, SERC hosted the National Youth Watershed Summit, a five-day convocation of high-school students selected by the nation's governors to participate in watershed studies with SERC scientists. The purpose of the summit was to engage the next generation of water-protection leaders and challenge them to develop their knowledge of watershed evaluation techniques through cooperative problem solving with other attendees. Students also participated in discussions with federal water quality executives and a project fair and visited the National Aquarium in Baltimore and the Smithsonian Mall museums. Hosted by SERC and sponsored by the Smithsonian and America's Clean Water Foundation, in cooperation with the U.S. Environmental Protection Agency, the U.S. Department of Agriculture, the U.S. Geological Survey and the Army Corps of Engineers, along with the National Atmospheric and Oceanic Administration, the summit marked 2002 as the Year of Clean



Carrying the banner of the Association of State and Interstate Water Pollution, the delegation from Alabama led the procession that opened the Youth Watershed Summit at SERC.

Water and the 30th anniversary of the Clean Water Act. To officially open the Summit, the students, representing 47 states and the District of Columbia, bore their state flags in a procession on the SERC campus, down Dock Road from Contees Wharf Road to the Philip D. Reed Education Center. The parade was led by the Southern High School marching band from Harwood, Md.

More information about the summit is available at www.serc.si.edu/education.



Summit participants learned about Geographic Information System technologies to study the watershed (left) and went out on boats with SERC scientists to study the ecology of the Chesapeake Bay (top).



Further Information

About this Newsletter

This publication is a seasonal newsletter of the Smithsonian Environmental Research Center. It is published to disseminate information about research and public programs at the Center. To subscribe to the newsletter or order back issues, contact Anna van der Heijden or visit SERC's web site at www.serc.si.edu.

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Education Programs

For more information about public and educational opportunities at SERC contact Jane Holly of the Office of Education and Public Programs or visit our web site.

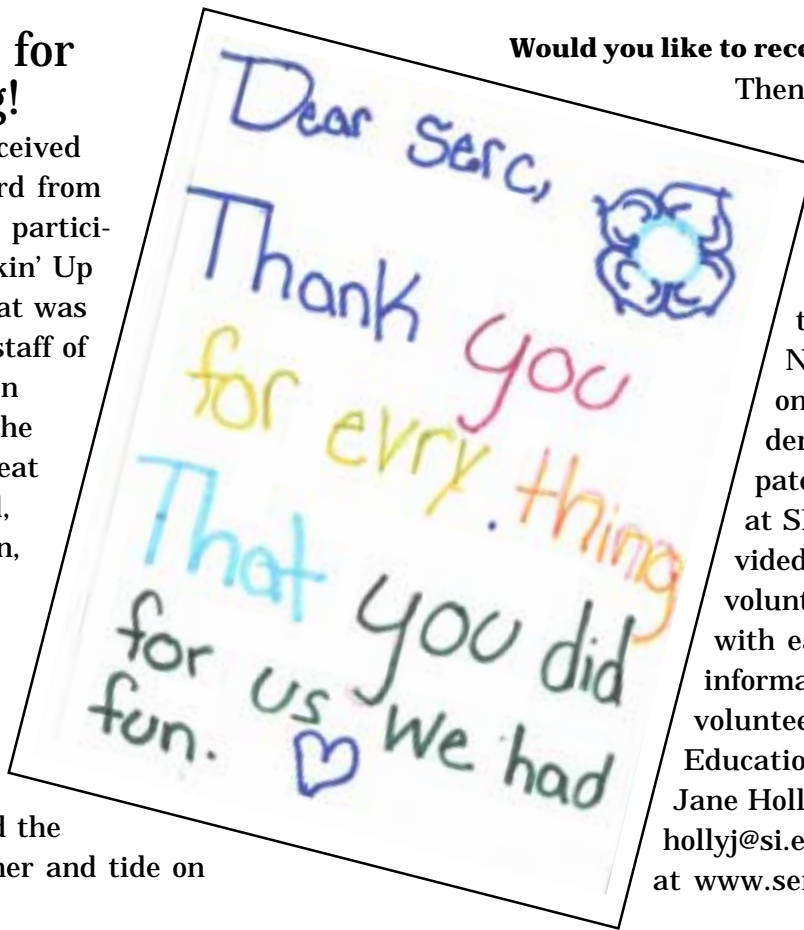
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Thank You for Evry Thing!

SERC staff received this wonderful card from students who had participated in the "Soakin' Up Science Camp" that was organized by the staff of the Carrie Weedon Science Center. The students had a great time at SERC and, while they had fun, they also learned an incredible amount about blue crabs, organisms in an oyster reef community, water quality, and the influence of weather and tide on the Bay.



Would you like to receive a card like this?

Then come and join our group of volunteers who help us run the education programs at SERC.

Commitment is usually for one day a week, for four to six hours starting at 9:30. No experience is necessary, only a desire to help students and teachers participate in a productive field trip at SERC. All training is provided. Education staff and volunteers usually work in pairs with each school group. For information about this and other volunteer opportunities at the Education Department, contact Jane Holly at 443-482-2216 or hollyj@si.edu. Or visit our web site at www.serc.si.edu/education.

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