

FELLOW NEWS

News for and about the Coastal Management Fellows

Issue Twenty-Four

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FOCUS ON FELLOWS: SOPHIE DE BEUKELAER 2003-2005

Fellow Sophie De Beukelaer quickly adapted when her family moved from Belgium to Mississippi to open a second cookie factory. She was in the 5th grade, and after adjusting to the “culture shock of cheerleaders, make-up, and movies,” she found school relatively painless since “her teachers were very patient with her as she learned English.”

Life may have been different for Sophie, but one thing remained the same—her love of sailing. She first sailed on the North Sea when her dad put her in a little Optimist, jumped on his windsurfer, and said “follow me!” After moving to Mississippi, she refined her sailing techniques at various summer camps and went on to compete on the high school varsity team.

Once she graduated from high school, Sophie attended Guilford College in Greensboro, North Carolina. She took a variety of liberal arts classes for a year but felt like she didn’t have much direction. She decided to leave Guilford and enroll in the Sea Education Association (SEA) Semester program.

The SEA Semester program was a turning point for



Sophie (left foreground) walking with a NOAA representative along a newly revegetated dune near the Westport Jetty in Washington.

Sophie. The program combines intensive research in oceanography, maritime studies, and nautical science with hands-on experience aboard a traditional sailing ship. Students learn about piloting, celestial navigation, and practical seamanship as well as oceanographic sampling techniques and marine laboratory procedures.

In order to build a firm base in the sciences, Sophie continued undergraduate school at New College in Sarasota, Florida, where she helped create an environmental geology class and conducted two independent research projects. Her first project was a water quality and historic study of the Port of Antwerp, Belgium, and the second, her

undergraduate thesis project, was an analysis of *Toxema carolinense* as an indicator species for nonpoint pollution in the Sarasota Bay.

Sailing continued to be a big part of Sophie’s life in college. She became a certified instructor and president of the college’s sailing club. During her tenure, she focused on holding repair workshops, acquiring gear and additional boats, collecting funds for boat storage, and collaborating with the right people to design an ecological boat house.

After graduating with a B.A. in natural sciences, Sophie worked for a few years at building her water and soil analysis skills. She prepared water samples using solid phase extraction techniques for

pesticide and herbicide analysis at a U.S. Geological Survey laboratory in Colorado, and then she analyzed water, soil, and waste samples for metal contamination for a company in Texas.

While in Texas, she looked into graduate programs and chose Texas A&M in College Station, Texas, because of an opportunity to be involved in many research cruises in the Gulf of Mexico “focusing on deep sea ecology.”

As a research assistant, she participated as navigator, data manager, and geographic information system (GIS) technician in three offshore research programs, as well as planned and administered four side-scan sonar surveys of chemosynthetic communities with the *Johnson-Sea-Link* submersible.

She completed a thesis project on the natural oil and gas seeps on the northern continental slope of the Gulf of Mexico using remote sensing analysis. Sophie really appreciated that her project and graduate program “integrated many disciplines of science so you can see how it all works together.”

While finishing up her M.S. in geosciences and oceanography, Sophie decided to apply for the Coastal Management Fellowship when her advisor sent her an e-mail about the program.

She was interested in an opportunity that integrated GIS and policy. At the fellowship matching workshop, the Washington project appealed to her because of the teamwork component and because it was



Sophie (back row, left) with Department of Ecology employees and a professor and graduate students from Central Washington University, developing the curriculum.

in the Northwest, a region she “wanted to check out.”

The Department of Ecology, Washington’s Coastal Zone Management Agency, is responsible for overseeing shoreline planning and land use decisions. The Shoreline Management Act, which is the core of the Department of Ecology, requires local governments to implement shoreline master programs (SMP) that protect ecological functions while encouraging public access and water-dependent development.

New guidelines adopted in December 2003 require city and county governments to update their SMP with policies that assure at a minimum no net loss of shoreline ecological functions. Local governments had questions about these policies, and it became apparent that they needed guidance to help address them.

The goal of Sophie’s fellowship project is to develop

a curriculum to help local planners analyze their shoreline ecological functions for the new shoreline master program guidelines. The curriculum will highlight what data and information to use, explain how to interpret existing information effectively, and build technical capacity in local governments.

Sophie started her project by researching and evaluating existing data sources, ecosystem modeling efforts, and analysis reports. She collaborated with employees and a team from the Department of Ecology as well as a professor and his graduate students from Central Washington University to develop the curriculum.

To illustrate the steps presented in the curriculum, Sophie prepared regionally specific examples focusing on marine shorelines, while others on the team focused on lake and river shoreline examples. These GIS-based maps and examples

provided illustrations of what the Department of Ecology expects from local governments when they complete an inventory and assessment for their SMP.

The illustrations focus on which shoreline activities impact or could potentially impact ecological functions and how to identify opportunity areas for protection and restoration.

The newly created Web-based shoreline assessment guidance is currently available on the Department of Ecology's Web site at: http://www.ecy.wa.gov/programs/sea/sma/st_guide/SMP/inven_analysis/index.html.

The team also presented this guidance to local planners, consultants, and scientists in a two-day workshop to make them aware of the type of help available and to receive feedback on the suitability and ease of the process outlined in the curriculum.

Sophie hopes that the completed inventory and analysis from local governments based on this curriculum will provide the basis for a scientifically informed SMP that will protect vital ecological functions and plan for the restoration of ecological functions where they have been impaired, assuring no net loss of ecological functions.

Now that the curriculum and guidance are complete, Sophie is focusing on georeferencing and digitizing coastal drift and 1970s land use data to "further define the nearshore classification system."

She is also involved in



Sophie planting trees during a tree planting event along Capitol Lake in Olympia, WA.

reviewing and commenting on shoreline inventories and analyses from counties and cities preparing their SMPs and will participate on an upcoming Department of Ecology research cruise.

The fellowship has provided Sophie with many professional development opportunities, such as presenting at several conferences, attending workshops, and participating in trainings. She has also learned a lot about Washington's ecology and the importance of "networking on the job."

Living in Washington has given her the chance to get involved in new organizations and activities. She is currently a member of TechREACH, a program that matches female mentors with middle school students to support their exploration of science, technology, and math.

She also uses Olympia's many bike trails to bike to

work. After the fellowship, Sophie may stay in the Northwest, an area she appreciates for all of its outdoor recreation opportunities.

For more information about Washington's shore project, please contact Sophie De Beukelaer at sde461@ecy.wa.gov.

**FOCUS ON THE CENTER:
NEW WEB SITE
PROFILES SOCIAL
SCIENCE TOOLS AND
METHODS FOR MPA
MANAGEMENT**

Recent studies have found that social aspects are equally as important as biological or physical factors in determining the success of marine protected areas (MPAs). To help coastal managers understand and address the human dimensions of MPA management, the NOAA Coastal Services Center, in cooperation with the National Marine Protected Areas Center, launched a new Web site exploring the social science aspects of marine and coastal resource management.

The site includes practical information on social science concepts and methods, case studies, references, and more to guide managers in determining appropriate tools to address their specific issues. Multiple topics are explored, including non-market valuation, surveys, cost-benefit analyses, and social assessment. Visit www.csc.noaa.gov/mpass/.

**FOCUS ON THE
FELLOWSHIP:
2005 STATE
PROJECTS**

Six exciting new projects have been selected for the 2005 to 2007 Coastal Management Fellowship. Below is a summary of each of the six projects for the upcoming year. Recruiting efforts are well under way, but we need your help to spread the word to eligible applicants. Remember, applications should be submitted to area Sea Grant directors and are due no later than January 31, 2005.

Connecticut Office of Long Island Sounds Programs; Hartford, Connecticut

Project Goal: Develop and disseminate techniques to assess the visual impact of proposed development on the scenic resources and landscape qualities of Connecticut's coast.

Maryland Coastal Zone Management Division; Annapolis, Maryland

Project Goal: Develop a watershed planning tool for local governments by identifying technical data, assembling a local government focus group, developing a Web site to serve as the interface, and creating an outreach plan.

North Carolina Division of Coastal Management; Raleigh, North Carolina

Project Goal: Conduct a comparison study of the two most commonly used shoreline datums in North Carolina - the wet/dry line and the mean high water (MHW) line - to determine if results of the two methods are interchangeable.

Ohio Office of Coastal Management; Sandusky, Ohio

Project Goal: Develop the Lake Erie Shore Erosion Management Plan (LESEMP) by synthesizing data gathered from existing shore erosion plans, identifying information gaps, and incorporating new findings into the LESEMP.

NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY

Upcoming Center Training

*Training classes are limited to project partners and NOAA line offices

JANUARY

- 24-28: Introduction to ArcGIS and Coastal Applications – Richmond, VA
29: Understanding Marine Protected Areas – Dubuque, IA

FEBRUARY

- 8-9: Project Design and Evaluation – Columbia, SC
14-18: Introduction to ArcGIS and Coastal Applications – Charleston, SC
15-17: Project Design and Evaluation – Hillsboro, OR

MARCH

- 1-2: Project Design and Evaluation – Mobile, AL
15-17: Project Design and Evaluation – Wilmington, NC
16-18: Public Issues and Conflict Management – St. Croix, USVI
21-23: Public Issues and Conflict Management – St. Thomas, USVI
21-25: Introduction to ArcGIS and Coastal Applications – Corvallis, OR

For more information, point your browser to
www.csc.noaa.gov/training/.

**San Francisco Bay
Conservation and
Development Commission;
San Francisco, California**

Project Goal: Coordinate with key recreation and environmental agencies to develop a Bay-wide policy plan and program for implementation of the San Francisco Bay Water Trail.

**Virginia Coastal Program;
Richmond, Virginia**

Project Goal: Create a searchable on-line resource to improve public access to coastal zone information and encourage nature-based tourism. Develop access standards for the Middle Peninsula of Virginia to aid the state in acquiring land.

For more information on the 2005 state projects, please visit the fellowship Web site at www.csc.noaa.gov/cms/fellows/05_stateprojects.html or contact the fellowship coordinator at csc.fellowships@noaa.gov.

Upcoming Conferences and Events

JANUARY

27-29: 4th Annual New Partners for Smart Growth Conference

Location: Miami Beach, Florida

www.outreach.psu.edu/programs/smartgrowth/

28-29: USGS Workshop: Institutional Analysis for Environmental Decision-Making

Location: Fort Collins, Colorado

www.fort.usgs.gov/conferences/InstitAnalysis/default.asp

FEBRUARY

14-15: 2nd National Water Resources Policy Dialogue

Location: Tucson, Arizona

www.awra.org/meetings/Tucson2005/index.html

MARCH

7-10: Coastal GeoTools '05

Location: Myrtle Beach, South Carolina

www.csc.noaa.gov/geotools/

For more information on upcoming events, please visit
www.csc.noaa.gov/cms/conferences.html.



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