



# FELLOW NEWS

News for and about the NOAA Fellows

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April 2010, Issue 45



## FOCUS ON FELLOWS

### Tricia Bowie



Coastal Fellow Tricia Bowie's childhood in Pennsylvania Dutch country was a far cry from the windswept beaches and coastal landscapes she later came to love. Growing up in rural Berks County, Tricia's home "was just across the street from a cornfield, and it wasn't unusual to pass Amish families using a horse and buggy," she says.

Family vacations to national parks across the country opened up a new world. "I was fascinated by the geological processes shaping our earth, like the way a river had carved a path through the Grand Canyon, and how glaciers had shaped the rocky coast of Maine," notes Tricia. "As a kid my parents always signed me up for the junior ranger program at Acadia National Park in Maine. Park rangers would lead us on nature hikes and teach us about local ecology and conservation issues. After finishing the program there was even a ceremony and we'd take an oath—my family still teases me about it!"

Tricia entered Furman University in Greenville, South Carolina, knowing that she wanted to pursue a B.S. in environmental science, and along the way she also completed a concentration in Latin American studies. Study abroad during her junior year was "life changing," says Tricia.

For six weeks the students traveled to Costa Rica, Ecuador, and the Galapagos Islands to study tropical ecology and observe unique biological communities that had sparked Charles Darwin's theory of evolution by natural selection. "I learned how many native species in the Galapagos are under threat from a host of human activities

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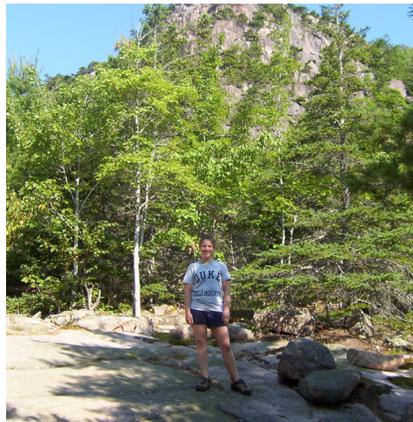


like illegal fishing practices, population growth, and tourism,” she says. “That experience made me want to learn more about how to balance economic development with the environmental integrity of the coast.”

Tricia completed a master’s in environmental management at Duke University’s Nicholas School of the Environment. “I knew Duke’s program would help me work toward solving this problem, plus I’m an avid fan of the Blue Devils,” laughs Tricia, adding that she camped out to be among the first in line for basketball season tickets. Professor Emeritus Orrin Pilkey, a leading scientist in coastal processes and barrier island morphology, became an important mentor for Tricia.

In her second year, Tricia studied at the Duke University Marine Laboratory in Beaufort, North Carolina. Professor Mike Orbach “taught me so much about the interactions between the human and natural environments, and how we can manage human activities through policy and governance.”

Tricia’s fellowship project for the New York State Division of Coastal Resources is a “great match. I had become familiar with the New York State Coastal Program when I was doing research at the Woods Hole Oceanographic Institution for my



*Tricia standing in front of the “Beehive” and hiking the “Beehive Trail” in Acadia National Park, Maine, 2007.*

master’s thesis, which involved assessing economic impacts of barrier beach drowning on New York’s Fire Island,” she says.

“My fellowship project is aimed at helping local governments prepare comprehensive plans to adapt to coastal storms and sea level rise. We guide officials on how to help their communities reduce current and future hazard risks, so they can become more resilient,” says Tricia. “Communities can make sure that disasters impact fewer people and require fewer resources when they include effective land use planning, strong building codes, and conservation of natural protective features.”

One of her challenges is conveying to the public the need to plan in advance of storms to address potential impacts, rather than waiting until a disaster strikes. “Now is the time to

consider what’s at stake—not only economic development and infrastructure, but also the social, cultural, and natural resource assets that communities depend on in order to function,” notes Tricia. Barry Pendergrass, a coastal resource specialist and Tricia’s mentor, has guided her on effective ways to communicate the benefits of preparing these plans at the local level. Pendergrass has also helped Tricia get involved with other coastal resilience initiatives in New York, including the state’s Sea Level Rise Task Force.

Tricia’s fellowship will end in August. While she’s open to future career moves, she’d love to continue helping communities better manage coastal hazards and adapt to climate change. “I’m happy because I feel like my work is making a difference. Helping preserve our ocean and coastal resources for future generations is a success for me.” 



## FOCUS ON FELLOWS

### Deborah Purce

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It seems somehow fitting that Coastal Fellow Deborah Purce has been chosen to help develop Washington State's Coastal Atlas for the Washington Department of Ecology. In previous travels to China, Mexico, Chile, and the Dominican Republic, Deborah has seldom stopped at mere sightseeing. Instead, she has tried to understand the "human atlas" of the places she visits, delving into culture, language, and ecology with an eye on making a positive contribution.

Born in Pocatello, Idaho, Deborah made a seaward shift at age 10 when her family moved to Olympia, Washington. She and her sisters attended an alternative elementary school that emphasized experiential education and an environmental ethic. "Our science teacher was everybody's favorite guy, and I thought he was really cool," says Deborah, whose interest in science was sparked that year by a weeklong field trip along the Olympic Peninsula.

Deborah studied abroad

in Chile and the Dominican Republic while in her junior year at Lewis and Clark College. For this student majoring in marine biology and minoring in Latin American studies, "It was such a great experience living with host families, speaking Spanish all the time, and taking classes with students who lived there."

Another highlight at Lewis and Clark was a semester studying marine biology at the Oregon Institute of Marine Biology (OIMB) near Coos Bay, Oregon. Jan Hodder, a professor at OIMB, alerted Deborah to the Minorities in Aquatic Sciences program run by Hampton University. The program helps minority students in marine sciences get the funding they need to attend important conferences, and it also pairs them with mentors who are professionals and scientists in the field.

Following graduation, Deborah spent several months traveling in China and then decided to work as a research and teaching assistant at a field school in Mexico. "I lived in a beautiful setting—a small fishing village on Magdalena Bay along the southern Baja Peninsula. It was wonderful to be able to use my Spanish and cultivate relationships with the international researchers and students who were at a field

station there," says Deborah. She aided one researcher in a sea-turtle protection program that now has a lot of buy-in from the community.

After this experience, Deborah attended Western Washington University to work on an M.S. in marine biology. She was finishing up a year of postgraduate studies on a Fulbright grant—researching new marine protected areas in Chile—when she took a plane to Charleston, South Carolina, for the NOAA Coastal Fellowship match-up. "I arrived in Charleston with my camping gear and no professional clothes to wear," she laughs. "I had to hit downtown Charleston fast and buy something appropriate!"

Deborah finds her work as a NOAA coastal fellow to be challenging and interesting. "Public access is one of the pillars of Washington's coastal zone management program, but there hadn't been an updated inventory of public access information in more than 20 years," she notes. Her job involves updating marine shoreline public access information in the Washington Coastal Atlas, a job she will complete in September 2010.

Deborah and her colleagues are developing a format "that can be accessible to everyone. Shoreline

## FOCUS ON THE COASTAL FELLOWSHIP: Sea Grant Endorsements

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*(Top) Deborah with a Magellanic penguin colony near Punta Arenas, Chile.*



*(Left) With local fishermen and research team during master's thesis fieldwork on Isla Pardito in the Gulf of California, Mexico.*

planners, of course. But also, for instance, a teacher planning a field trip. People curious about where to fish legally or swim or launch a boat. Real-estate professionals. Tribal governments. Agencies, conservation nonprofits, volunteer groups, and restoration groups,” she notes.

Kathy Taylor, the agency’s aquatic habitat specialist and manager of the atlas, has been a great mentor to Deborah. “Kathy has done a fabulous job of setting me up with the project goals and then allowing me the flexibility to figure out how I’m going to meet them. I’m doing a lot of field verification and also giving presentations to shoreline planners

of the local governments.” Deborah also coordinated a conference that brought together the West Coast developers of coastal atlases in the U.S. and Canada. “It was interesting to see that five of us were either current or former coastal management fellows!”

What are Deborah’s plans once the fellowship ends? “This agency has been great to work for, and I am deeply connected to this region of the U.S. At the same time, working internationally has been very important for me, and I hope someday to do it again,” she says. “I don’t have a specific plan—but the fellowship has definitely opened the door wider on my career possibilities.” 

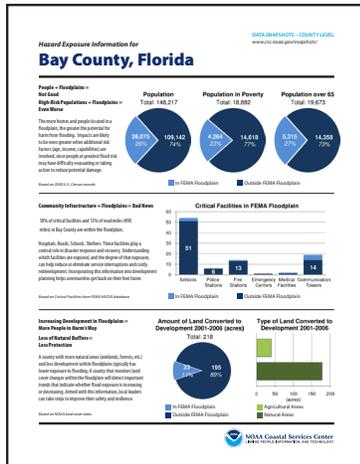
The NOAA Coastal Services Center has received the 2010-2012 Coastal Management Fellowship endorsements from Sea Grant. The Center received 33 applications from 18 Sea Grant programs across the country. Using four criteria—academic performance and diversity of educational background, endorsement by the applicant’s Sea Grant director, support from two letters of recommendation, and content of the applicant’s goal statement—12 finalists will be selected from among these candidates.

A workshop to match states with fellows will take place in Charleston, South Carolina, from April 26 to 30, 2010. Of the finalists selected, six will be placed with a host state. Each of the selected host states will send its fellow mentor to the placement workshop, and the finalists will be brought to the workshop at the expense of the Center.

This year, the host states are Maine, Michigan, New York, Puerto Rico, Washington, and Wisconsin. For more information on 2010 state projects, please visit the fellowship website at [www.csc.noaa.gov/cms/fellows/stateprojects.html](http://www.csc.noaa.gov/cms/fellows/stateprojects.html) or contact the fellowship coordinator at [csc.fellowships@noaa.gov](mailto:csc.fellowships@noaa.gov).

# FOCUS ON THE CENTER

## Coastal County Snapshots and the Coastal Inundation Toolkit



As climate change brings elevated risks of flooding and other hazards, coastal community officials must increase the hardiness of local constituents, property, and infrastructure. But to officials beginning the process, it is a task filled with uncertainty. How do I identify my county’s strengths and vulnerabilities for flooding exposure? How do I communicate these risks, and the need to become more resilient, to constituents? How do I develop a resilience action plan?

Two new products from the NOAA Coastal Services Center—Coastal County Snapshots and the Coastal Inundation Toolkit—can be used separately or in tandem to help coastal officials and stakeholders find answers to these questions.

Coastal County Snapshots (at [www.csc.noaa.gov/digitalcoast/tools/snapshots/](http://www.csc.noaa.gov/digitalcoast/tools/snapshots/)) enables county officials and their constituents to locate instant information:

- Important facts about exposure to flooding for coastal counties in the lower 48 states and Hawaii
- County hazard-risk statistics
- Guidance on conducting risk assessments for hazards and climate change
- Snapshot facts via a printable PDF and practical tips on increasing community resilience

The Coastal Inundation Toolkit (at [www.csc.noaa.gov/digitalcoast/inundation/](http://www.csc.noaa.gov/digitalcoast/inundation/))—created by the Digital Coast

Partnership and supported by the Mississippi Coordinating Council for Remote Sensing and Geographic Information Systems—provides resources that can help users understand and lessen the local risks of inundation:

- Inundation facts, including statistical information on each county’s exposure
- Tools for mapping inundation to “see” potential impacts
- Resources for assessing community risks, vulnerabilities, and resilience
- Guidance on communicating risk strategies to initiate change
- Stories outlining how other communities are addressing coastal inundation

### BE ON THE LOOKOUT

*For a special edition of Fellow News*

The upcoming July issue of *Fellow News* will be distributed as an insert in the Center’s August/September *Coastal Connections* newsletter.

For more information, contact [Margaret.Allen@noaa.gov](mailto:Margaret.Allen@noaa.gov).

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## UPCOMING CONFERENCES AND EVENTS

### APRIL

10 to 13: **American Planning Association 2010 National Planning Conference**  
New Orleans, Louisiana  
[www.planning.org/conference/](http://www.planning.org/conference/)

18 to 21: **16th Annual California GIS Conference**  
Huntington Beach, California  
[www.urisa.org/calgis/info/](http://www.urisa.org/calgis/info/)

### MAY

16 to 21: **Association of State Floodplain Managers 34th Annual National Conference**  
Oklahoma City, Oklahoma  
[www.floods.org/index.asp?menuid=381](http://www.floods.org/index.asp?menuid=381)

### JUNE

13 to 16: **The Coastal Society 22nd International Coastal Conference**  
Wilmington, North Carolina  
[www.thecoastalsociety.org/conference/tcs22/index.html](http://www.thecoastalsociety.org/conference/tcs22/index.html)

## NOAA COASTAL SERVICES CENTER TRAINING

**CanVis Virtual Workshop**  
April 21, May 19, June 23

**Coastal Community Planning and Development**  
June 23 to 24  
Humboldt, California

**Coastal Inundation Mapping**  
April 18  
Huntington Beach, California  
May 4 to 5  
Annapolis, Maryland  
May 16  
Oklahoma City, Oklahoma  
June 13  
Wilmington, North Carolina

**GIS Tools for Strategic Conservation Planning**  
May 4 to 7  
Silver Spring, Maryland

**Habitat Priority Planner**  
April 14  
Charleston, South Carolina  
April 18  
Huntington Beach, California  
May 4, May 5, May 6  
Vero Beach, Florida

**Habitat Priority Planner Virtual Workshop**  
April 26, May 24, June 28

**N-SPECT Virtual Training**  
April 15

**Planning for Meaningful Evaluation**  
May 12 to 13  
Punta Gorda, Florida

**Project Design and Evaluation**  
May 11 to 12  
Waquoit, Massachusetts

For more information on virtual and site-specific trainings, visit [www.csc.noaa.gov/training/](http://www.csc.noaa.gov/training/).

## CREDITS AND INFORMATION

*Fellow News* is published by the National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center to relay information about the fellowship program and provide a forum for information exchange among fellows, mentors, Sea Grant, and the Center.

Please send your questions and suggestions for future editions to [csc.fellowships@noaa.gov](mailto:csc.fellowships@noaa.gov)

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