



*Welcome to the Albemarle-Pamlico National Estuary Program **E-Update** – a monthly summary of selected activities of the APNEP staff, committees and our partners...*

### **Please Welcome Our Newest APNEP Staff Member:**

Lucy Roberts Henry grew up in rural Wisconsin. She attended Middlebury College in Vermont, a liberal arts school, where she pursued international studies specializing in Russian literature, language and culture. She spent a year in Siberian Russia near Lake Baikal, and from 2000-2005, she worked in the field of international development, managing programs focused on community development, international partnership, and the environment. During this time, she worked in the country of Georgia as a program manager for the non-profit organization Project Harmony and in Washington, DC as a program officer and then a co-executive director for the non-profit organization ISAR.

From 2005-2007, Lucy pursued a master's degree in environmental management at Duke University's Nicholas School of the Environment and Earth Sciences. She completed a curriculum in Conservation Science and Policy with a specialization in land use policy and planning and community-based, participatory environmental management. Her master's research consisted of an interdisciplinary assessment of farmer motivations to undertake conservation practices in the lower Roanoke watershed in North Carolina, which built on summer research about agriculture and conservation in the Albemarle Sound region that she undertook for Environmental Defense.

Lucy fills the position vacated by Kelly Williams late last year.

**Parasite Found: Scientists Ponder New Problem:** New research shows that native Eastern oysters are susceptible to *Bonamia*, a parasite that kills Asian oysters.

Until researchers at the University of North Carolina at Wilmington discovered the parasite in oysters from Hewletts Creek in New Hanover County this spring, scientists thought the parasite did not infect Eastern oysters (*Crassostrea Virginica*).

"We can't say right now that it threatens *Virginica* oysters, but we can say we were surprised to find *Bonamia* in the *Virginica*," said research team member Troy Alphin, marine biologist at the UNCW Center for Marine Science.

When large numbers of Asian oysters growing in an experimental nursery in Bogue

Sound died suddenly in 2003, researchers found the parasite in the Asian oysters at the Carteret County facility.

Before then, *Bonamia* had been found only in oysters from the cold waters off Maine, France, and New Zealand.

After the parasite was identified in oysters at the experimental nursery, researchers at Virginia Institute of Marine Science (VIMS) determined that *Bonamia* could quickly wipe out Asian oysters.

Asian oysters grow faster than Eastern oysters and aren't susceptible to the parasite MSX or the disease Dermo that have ravaged the native species. Some officials in Maryland and Virginia had hoped the Asian species could help filter polluted waters and boost oyster harvests in the Chesapeake Bay, but enthusiasm for introducing the species in US bays and estuaries slowed with the discovery of *Bonamia*.

Scientists in North Carolina later found *Bonamia* in crested oysters, a native species much smaller than the Eastern type, from Beaufort Inlet and Hewletts Creek. They can't say whether the parasite occurs naturally or was introduced, perhaps from ballast water dumped by ships at nearby deepwater ports.

Still, tests didn't show *Bonamia* in large Eastern oysters.

"The question for us was whether *Bonamia* was in smaller *Virginica* oysters," explained Alphin, describing the scope of UNCW study that was funded by North Carolina Sea Grant.

The UNCW team examined smaller *Virginicas* from Hewletts Creek, New River, and White Oak River.

Only the Hewletts Creek oysters tested positive for the parasite.

"And as we tested larger oysters, the amount of active infection decreased," Alphin said.

Researchers aren't sure what that means.

"Can *Virginica* fight off *Bonamia* as they get larger, or does it kill the oysters before they grow larger? We don't know," Alphin said.

Alphin cautioned that although the UNCW study found what he described as "a significant number" of active infections in the Hewletts Creek oysters, the results of the small-scale study don't prove that the parasite threatens Eastern oysters.

BY SUSAN WEST | SENTINEL STAFF

## **Barrier Island Development Issues Workshop:**

Presented by the North Carolina National Estuarine Research Reserve's Coastal Training Program will be held on Wednesday, June 20, 2007, at The History Place, Les A. Ewen Auditorium, Morehead City.

This workshop, based on results from a needs assessment of Carteret County town planning boards, aims to provide participants with up-to-date information on barrier island development rules. This includes information from the North Carolina Division of Coastal Management regarding the science and policy of develop rules and the CAMA permitting process. Beach restoration options will also be discussed including a history of Carteret County projects, explanation of project types, and restoration funding options. At the end of the workshop, participants will take a trip to Memorial Park public beach access to discuss and view the challenges of maintaining access to our public trust waters.

This workshop is free of charge and lunch is provided. To register, fax or mail the attached registration form or contact Whitney Jenkins at 252-728-2170 or [whitney.jenkins@ncmail.net](mailto:whitney.jenkins@ncmail.net).

**Virginia Albemarle-Chowan Roundtable Meeting:** The June 13th Albemarle-Chowan Roundtable meeting has been changed to be a steering committee meeting. However, if anyone is interested in attending please feel free to do so. The meeting will be held at the VA Department of Conservation and Recreation regional office in Suffolk from 9:30 - 12. For more info contact Noah Hill at (757) 925-2319, or email him at [noah.hill@dcr.virginia.gov](mailto:noah.hill@dcr.virginia.gov)

**APNEP Policy Board:** The APNEP Policy Board met on May 15<sup>th</sup> in Manteo at the Aquarium on Roanoke Island. Items of interest included:

- determine support for establishment of a non-profit entity
- replace conservation representative due to member resignation
- provide info on Citizens' Monitoring Network in order to solicit outside support
- change format of next year's presentation of work plan
- notify members of their term limits
- Submerged Aquatic Vegetation mapping photography flight plans
- Non-point Education for Municipal Officials (NEMO) support
- NC Teaching Fellows program support
- Overview of Policy Board members' role and Ex. Order #74
- CCMP overview; establish CCMP-update steering committee; ID post-CCMP issues; steering committee volunteers: Linda Rimer, Granville Meitland, and Jack Thigpin
- Update of APNEP website, [www.apnep.org](http://www.apnep.org)

## **Release of National Estuary Program Coastal Condition Report:**

The Environmental Protection Agency (EPA) is releasing for the first time, the *National Estuary Program Coastal Condition Report*, which ranks the condition of ecological resources in the 28 estuaries of EPA's National Estuary

Program (NEP). This report serves as a foundation for EPA's efforts to protect, manage and restore coastal ecosystems.

"As we celebrate the 20<sup>th</sup> anniversary of the National Estuary Program, EPA's flagship watershed protection initiative, we are applying uniquely tailored solutions to local environmental problems and to the needs of the local communities within each NEP watershed," said EPA Administrator Stephen L. Johnson. "Through the efforts of the 28 NEPs, more than 1 million acres of coastal habitat have been restored and protected since 2000."

Overall, the NEPs are in fair condition and scored better than or equal to all other U.S. estuaries despite significant population pressures. The information in the report is based upon sound, consistent, EPA-sponsored monitoring data collected from 28 NEPs between 1999 and 2003 as well as monitoring data collected by the individual NEPs.

The data was collected as part of EPA's National Coastal Assessment – the most comprehensive and nationally consistent data set available related to estuarine conditions. The NEP estuaries were rated individually, regionally, and nationally using four primary indicators of estuarine condition including water quality, sediment quality, benthic condition, and fish tissue contaminant concentrations.

Population pressures in the NEPs were greater than those in the non-NEP estuaries from 1990-2000, yet the NEP estuaries showed the same or better estuarine conditions than other coastal waters overall. By 2000, more than two-thirds of the coastal population lived in NEP counties, which comprise less than 6% of the coastal land area.

28 of the nation's estuaries are located in 18 coastal states and in Puerto Rico and have been designated as estuaries of national significance as a result of their unique economic, ecological, recreational and aesthetic values.

In the United States, estuaries provide habitat for more than 75 percent of America's commercial fish catch. Estuarine-dependent fisheries are among the most valuable, with an estimated worth of more than \$1.9 billion nationwide. Coastal recreation and tourism generate an additional \$8 to \$12 billion annually.

For a copy of the report, please call 1-800-490-9198 and request EPA publication # EPA-842-B-06-001 or visit [www.epa.gov/owow/oceans/nepccr/](http://www.epa.gov/owow/oceans/nepccr/).

Until next time...

Joan Giordano  
APNEP Outreach Coordinator

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