

Ocean County College
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The Barnegat Bay Beat

Fall 2003

A Quarterly Publication of the Barnegat Bay National Estuary Program



A Celebration to Express the Many Thank You's!

After more than a decade of hard work by many volunteers and dedicated environmentalists, a celebration was held to thank those who made the Barnegat Bay's Comprehensive Conservation and Management Plan (CCMP) a reality. On October 23, 2003, the Ocean County Board of Chosen Freeholders and the Barnegat Bay National Estuary Program sponsored a celebration to kick off the implementation phase of the Comprehensive Conservation and Management Plan.

The well-attended event was held at the Ocean County Parks Administrative Offices with the spectacular backdrop of the Barnegat Bay amid surprise snow flurries. "This has been a long time in coming," said Freeholder James F. Lacey, who sponsored the event and serves as liaison to the Program. "We are here to celebrate the Program's successes and its future and especially all of you who have made it happen." Jane M. Kenny, Regional Administrator for the US Environmental Agency stated, "This undertaking will ensure that future generations have the same outdoor memories to cherish as we have today."



The Barnegat Bay Beat

Fishin' for Ideas

We welcome all contributions and story ideas for inclusion into *The Barnegat Bay Beat*. Please contact Shannon Shinault via email at sshinault@co.ocean.nj.us for more information.

The Barnegat Bay Beat is a quarterly newsletter produced by the Barnegat Bay National Estuary Program. The Barnegat Bay National Estuary Program is a partnership of federal, state and local interests. Our office is located on campus at Ocean County College, College Drive, Toms River, New Jersey.

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James F. Lacey

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Barnegat Bay National Estuary Program Office Relocates to Ocean County College

Dr. Bob Scro, BBNEP Director

As the Barnegat Bay National Estuary Program (BBNEP) moves from planning to implementation, it is growing, both programmatically, and as a Program office. As such, the Program office has been relocated to a new home at Ocean County College (OCC).

The new academic atmosphere will provide the program with increased public visibility and autonomy, as well as more space. The BBNEP strives to be a high profile program in Ocean County. Ocean County College has committed to contributing to the efficient operation

of the Program office during this critical phase of Comprehensive Conservation and Management Plan implementation.

Now that the BBNEP is part of OCC, several new initiatives are on the horizon:

- (1) A strong environmental protection and education linkage between the BBNEP, OCC and the 33 municipalities of Ocean County.
- (2) Opportunities for OCC professors and students to learn more about environmental problems and solutions in

(continued on page 6)

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IN THE CLASSROOM

Estuary Live!

Take a journey on an interactive field trip of eight of our nation's estuaries and learn about one of our nation's most precious resources -- where rivers meet the sea. The entire adventure can be enjoyed from home or classroom because it takes place over the Internet. If you happened to miss the live version that was broadcast on September 25 and 26, log onto www.estuarylive.org and you can download all of the field trips. During the programs, naturalists from NOAA's National Estuarine Research Reserves and U.S. EPA's National Estuary programs will take participants on a journey through each unique ecosystem.

Educational materials are also available on the website to help classrooms prepare for Estuary Live.

The Barnegat Bay National Estuary Program (BBNEP) can be found in Session 4 on September 25. BBNEP teamed up with the Jacques Cousteau National Estuarine Research Reserve to explore the Great Bay in Southern Ocean County and learn about the differences and similarities of Great Bay and Barnegat Bay. U.S. Environmental Protection Agency Regional Administrator, Jane Kenny participated in the "down in the salt marsh" tour. "Every time I come here and learn more about the wonders of the Barnegat Bay Estuary, I am reminded that we must continue to protect it," said Regional Administrator Kenny.

Join us for this exciting adventure at www.estuarylive.org



Getting to Know Our Neighbors

Bob Dieterich, EPA Program Coordinator

Along with the falling leaves and cooler temperatures, the changing season this time of year brings with it the spectacle of the fall bird migration south to wintering climes. A notable part of that migration is the movement of raptors, specifically for this article, the Peregrine falcon, along Atlantic Coast beaches.

The Peregrine falcon (*Falco peregrinus*), about the size of a crow, is one of nature's swiftest and most beautiful birds of prey. Peregrine falcons are medium-sized hawks with long pointed wings, a generally dark body coloration above and paler below, and characteristic black vertical cheek marks, or "moustaches." Typical among hawks, Peregrine females exceed males in size by as much as one-third. These aerodynamically designed predators can attain speeds of 200 miles per hour, making them the fastest bird in the world. Peregrine falcons favor open areas for foraging and often hunt over marshes, beaches, or open water. Being predators of other birds, they feed on songbirds, shorebirds, ducks, and where they reside in urban areas, the ubiquitous pigeons and starlings.

In the course of the past century, the East Coast population of Peregrine falcons was decimated, first by nest robbers for the falconry trade and by indiscriminant hunters, then as a result of poisoning by the pesticide DDT, which was in wide use starting in the 1940s. By the 1960s, there were no known nesting Peregrines in the East, and this was but a harbinger of the decline of the species throughout most of

(continued on page 4)



Where's Barney?

Barney (yes that is his name) is somewhere in the Barnegat Bay Watershed. Think you have the answer? Be the first to email the correct answer to sshinault@ocean.edu to receive your Barnegat Bay baseball hat.



Monitoring Plan Approved... (cont. from page 6)

on resource protection and restoration, land acquisition, and research funding priorities. The plan also identifies critical information gaps where additional monitoring is needed to accurately assess the health of the estuary and watershed.

The heart of the monitoring plan is a series of 30 environmental and programmatic indicators that provide an effective mechanism for evaluating progress toward the full achievement of the CCMP goals. The idea is that if we are able to track the status of these specific indicators, then we will have a good understanding of the ecological health of the estuary and watershed and the effectiveness of CCMP actions to maintain and restore them. The nine "primary indicators" provide an efficient mechanism for public communications about the overall health of the estuary and watershed. The 21 "secondary indicators" are additional measures that also are important for evaluating environmental stewardship. All 30 indicators are used in periodic scientific evaluations of the status of and trends in estuary and watershed health.

One example of an important indicator is submerged aquatic vegetation (SAV). The acreage of healthy SAV beds is a useful indicator of the health of a whole host of estuarine habitat functions, such as spawning, nursery, and feeding grounds for finfish, and food sources for animals such as clams, finfish, ducks, and muskrats. SAV beds are anchored by their roots or other attachment mechanisms to bottom sediments, and they stabilize the benthic habitat by baffling waves and currents and mitigating substrate erosion. They even play a role in nutrient transformation. By tracking the distribution, abundance, and health of SAV beds, in conjunction with other indicators, we will have a better understanding of the status of important estuarine habitats and the factors that may be affecting them. Thanks to a vigorous mapping effort by researchers at Rutgers University, SAV tracking is off to a great start.

The many ongoing monitoring programs of various agencies and other groups will meet the data needs for achieving some of the monitoring objectives outlined in the plan, but the monitoring that is necessary to meet many critical needs is not presently funded. Some of the most serious deficiencies in monitoring information relate to shellfish and finfish populations, sediment toxicity, shallow-water habitats, riverine inputs of freshwater and contaminants, turbidity, and environmental factors that may be contributing to the recurrence of harmful algal blooms such as brown tide. As a result of these deficiencies, our view of the ecological health of the estuary is partially blocked, and we are presently unable to see where these important resource issues are headed. With appropriate funding for all the major monitoring components of the program, however, we can have the full vision needed to ensure that the objectives and goals of the Barnegat Bay-Little Egg Harbor CCMP are achieved.

Holiday Shopping That Doesn't Leave You Feeling Frazzled!!

Before buying Aunt Sue another scarf she doesn't need, or giving little one-year-old Tommy an overly-packaged plastic toy he'll never miss, why not honor these occasions by giving a hive of bees or a flock of chicks in your loved one's name to be sent to a struggling rural family in need. Log onto www.heifer.org or call (800) 422-0474 for more information. You'll be glad you did!

Putting Your Garden to Bed

Mary Judge, BBNEP Program Assistant

Before the weather gets too cold, take a walk around your garden with your camera. If you have the option to print the date on your picture, use it and next spring you'll be able to remember what's happening or not happening in your garden in the fall.

COMPOST: Before your compost freezes, give it one more toss and spread what you can on the garden to make room for your autumn leaves. A 4x4x4 foot bin can hold the leaves from more than 100 large trash bags! That's a lot of plastic kept out of the landfill. P.S. Don't compost your charcoal barbecue ashes, or anything that's been treated with pesticides (yet another reason not to use them in the first place).

FERTILIZE (if you must): Now's the time to fertilize your lawn, shrubs and trees. Use an organic, slow-release fertilizer like Oceangro (www.ocua.com/oceangro.htm). Fertilizing should be put off if the weather looks like rain, as stormwater will wash newly-applied fertilizer into the storm drains (and then into Barnegat Bay) before it has a chance to be absorbed. Remember the blob!

HARVEST: Gather seeds to share with your friends. Pick your green tomatoes and let them ripen on your windowsill or wrapped in newspaper. Divide overgrown plants to give to your local garden club or to donate to a municipal garden project.

MULCH: Give your perennials some protection from the winter freeze/thaw cycle by putting down a

thick layer of mulch. You can use pine needles, your town's free leaf mulch, or just rake some of your own shredded leaves and grass straight into the garden instead of stuffing those big plastic bags.

PLANT: Fall is the time to plant new shrubs and trees and to move things around if they didn't do well in a particular area.

PRUNE: "If it's brown, cut it down." Grasses can be left alone to provide some architectural interest all winter.

WEED: Keep weeding.

Only compost those materials which are not invasive or have not gone to seed. Heavy mulching will also keep the weeds down.

As you're performing your fall garden chores, think about how you can "green" your garden next year. Bag and dispose of invasive non-natives, turn some high-maintenance lawn into low-maintenance ground-cover, experiment being chemical-free for one garden season, and be a *Guardian of Barnegat Bay* by taking care of your share.

Our Neighbors...(cont. from page 2)

North America. The Peregrine falcon was classified as a federally endangered species in 1970, DDT was banned in 1972, and shortly thereafter, an aggressive Peregrine falcon recovery plan was initiated in the East. Biologists released captive-reared young Peregrines into the wild starting in the late 1970s, and achieved a satisfying level of success by the mid-1980s in our area. The Brigantine unit of the Forsythe National Wildlife Refuge bears the distinction of being the very first site for captive releases on the East Coast. The population of birds continued to increase so that by 1999, the US Fish and Wildlife Service was able to de-list the Peregrine falcon, making this one of the most stunningly successful achievements ever in the history of the Endangered Species Program. Today's resident population is as high as it has been anytime in the past century.

Peregrines can be found any time of year in the coastal region, wintering as well as summering, but their numbers reach a peak during the fall migration when as many as a dozen or more can be spotted in a day on the outer coast taking advantage of a brisk northwesterly wind. From Sandy Hook to Cape May, Peregrine falcons are a featured attraction for coastal hawk-watchers. It is with a great sense of appreciation and accomplishment that we can admire these expert aerialists as an integral component of the natural life of Barnegat Bay and its surroundings.

It's comforting to know that there is room to accommodate much of wild nature, as exemplified by the Peregrine falcon, within our built-up cities and shorelines, but more than that, the continued health of the Peregrine population assures us that we are achieving our goals in reducing the risk of environmental pollution as well.



Workshops Announced For Discovering Barnegat Bay

The Ocean County Soil Conservation District and the affiliate members of the Barnegat Bay Watershed Environmental Educators Roundtable are pleased to announce the release of *Discovering Barnegat Bay*, an interdisciplinary guide for the historical, cultural and natural resources of the Barnegat Bay Watershed. The guide was funded by the Barnegat Bay National Estuary Program.

The guide is comprised of 40 lesson plans and activities specifically about the Barnegat Bay watershed. The lesson plans, developed by educators, are interdisciplinary and offer opportunities in Language Arts, Science, Social Studies & Mathematics. This supplemental resource incorporates locally significant topics and issues into existing curricula that meets New Jersey State Standards.

There are ten workshops scheduled for the current school year at locations throughout the Barnegat Bay watershed. They are being co-hosted by many of the organizations which are both members of the Roundtable and contributors to the guidebook. Each workshop offers a unique opportunity for *Discovering Barnegat Bay*.

Registration forms are available on-line at www.ocscd.org. For more information, please call Kerry Jennings at 609-971-7002.

Three Pumpout Boats Now Provide Free Service to Barnegat Bay Boaters

David J. McKeon, Ocean County Assistant Planning Director

Three pumpout boats now operate in Barnegat Bay during the boating season. These boats empty the holding tanks of recreational boats free of charge. The mobile nature of the service makes it much more accessible and convenient to boaters. To date, approximately 100,000 gallons of effluent have been removed since the first boat began operation in 1998. Operational Funds are provided by the County of Ocean, in partnership with the Ocean County Utilities Authority and the Ocean County Prosecutor's Office. The boats were purchased with grants from the NJ Clean Vessel Act Program.

The newest boat in the fleet is the Bay Saver, which is owned by the County of Ocean and operated under a lease agreement by the Township of Brick. The boat commenced operations in July of 2003 and services the northern portion of Barnegat Bay.

The Circle of Life was the first pumpout boat in the state of New Jersey. The boat recently completed its 6th year of service. It is owned and operated by the Borough of Seaside Park and services central Barnegat Bay. This boat is particularly important to the Tice's Shoal area off of Island Beach State Park, where hundreds of boats congregate over a typical summer weekend.

The Waste Watcher is owned by the County of Ocean and operated by the Tuckerton Seaport. The boat services Little Egg Harbor Bay and commenced operation in late 2001. The boat was in for repair and was without a boat captain during most of the 2003 season; however, it returned to service in late August and experienced a brisk business through mid-October. The Tuckerton Seaport is still looking for a part-time boat captain to supplement upcoming operational needs in 2004. Persons interested in the position should contact the Seaport Office at 609-296-8868.

MAILING LIST:

- Please add my name to your mailing list for my free subscription to *The Barnegat Bay Beat*.
- Please remove my name from your mailing list. There's no more room in my mailbox, but I will be sure to check your website at www.bbep.org.

Mail this coupon to: Barnegat Bay Estuary Program, at Ocean County College, PO Box 2001, Toms River, NJ 08754-2001, OR email us at: sshinault@ocean.edu



Data Needed to Deliver on a Monitoring Plan for Barnegat Bay/Little Egg Harbor

Robert S. Nicholson, U.S. Geological Survey Hydrologist

To know you're sailing on the right tack, you've got to have your eyes open. Just ask any boat captain plying the busy, shoaling waters in the bay around Barnegat Inlet. To know that the Barnegat Bay National Estuary Program (BBNEP) is on the right tack, we need to practice good science to "see" whether programs are working in the right direction to protect and restore water quality, habitats, and compatible uses of estuary resources. Good science requires good information, and that comes from a solid, comprehensive program to monitor environmental conditions both in the estuary and in its watershed. A variety of scientific institutions have been conducting environmental monitoring efforts in the region for a decade or more, but until now they have not had the benefit of a program to coordinate them and to combine and utilize results for evaluating BBNEP effectiveness in its environmental stewardship efforts.

After years of concerted effort by more than a dozen BBNEP partners, including representatives of local, state, and federal agencies, universities, private industry, and the public, plans have been formulated to establish such a program for Barnegat Bay. These plans were approved by the U.S. Environmental Protection Agency in August 2003.

The Monitoring Program Plan for the Barnegat Bay estuary and watershed is an outgrowth of a six-year process during which much was accomplished. The many BBNEP partners exchanged information, characterized and assessed the health of the estuary and watershed, and formulated a Comprehensive Conservation and Management Plan (CCMP) for managing important living and nonliving resources in the region. Through this process, several milestones were reached: critical resource values and problems were identified; management goals and actions were established; 62 existing monitoring programs and 15 critical data gaps were identified and documented; and 30 key environmental and programmatic indicators were developed.

The Monitoring Program Plan is a comprehensive blueprint for monitoring activities in the Barnegat Bay/Little Egg Harbor estuary and watershed that relate to the mission of the BBNEP. The plan describes critical activities that will track progress toward, and achievement of, the CCMP objectives and will guide decisions

(continued on page 7)



Relocation...(cont. from page 1)

Ocean County and to participate in the many public education projects of the BBNEP Program Office.

- (3) Education and involvement in environmental science projects, as interns with the BBNEP and our partner agencies on the Scientific and Technical Advisory Committee.
- (4) Provide opportunities for professors and students to publish and receive acknowledgement in the areas of science education and other areas where the BBNEP works with its partners.

The new relationship between the BBNEP and OCC is expected to provide mutual benefits for both organizations, as well as Ocean County and its citizens during the 21st century. We hope you will join us in this new endeavor.



Local Flavors

Sedge Island Cobbler, submitted by Jackie Raniero

Butter a 9"x12" pan
Add 1 20-ounce can of crushed pineapple
Sprinkle 1 box yellow cake mix, as-is, over the pineapple
Add 3 cups of blueberries
Add 1 cup chopped nuts
Add 1/2 cup sugar
Melt one stick of butter and drizzle it over the top.

Bake at 350 degrees for 45 minutes until bubbly.

Barnegat Bay National Estuary Program 2004 Minigrants

In an effort to increase public awareness, the Barnegat Bay National Estuary Program is soliciting proposals for public education and participation activities focusing on major environmental problems facing the Barnegat and Little Egg Harbor Bays, including multiple users' needs, and ecosystem health and sustainability. Projects should seek to increase public awareness and education; emphasize that this ecosystem is a living environmental and social resource; demonstrate that the public can help to protect the estuary; motivate people to actively participate in its restoration; and utilize innovative activities which involve people and lead to local action. Applicants are invited to submit a proposal in one of the following subject areas: nonpoint source pollution prevention, habitat enhancement and preservation, water quality control, estuarine education, citizen monitoring, and public participation.

For more information or to request an application please contact Mary Judge at mjudge@ocean.edu or call 732.255.0472.



Summer Is Never Quite Long Enough...

This summer, the Barnegat Bay National Estuary Program was fortunate to have Janice Brown as its summer intern. Janice begins her senior year at the University of Delaware this fall and will be graduating in May 2004.

Janice is a political science major and biology minor and plans to attend graduate school at the University of Delaware for Marine Policy. She was enthusiastic and diligent in all of her tasks - a definite asset to the Barnegat Bay National Estuary Program!



Janice Brown, Summer Intern

"This summer I learned so much about the Barnegat Bay estuary and its watershed. The outreach programs that the BBNEP provide are terrific and I realized that these outreach programs are a big part of how policy is implemented. While growing up in the Barnegat Bay watershed, many of the activities that I participated in involved the water, and through my internship this summer I obtained a better understanding of my environment and an even greater adoration for the water and the Barnegat Bay. My experience with the BBNEP was a great one and I hope to continue to volunteer or even work for the Program in the future."



What's An Estuary? Now You Know.

When you mix the fresh water of a river with the salt water of the sea, something wonderful happens...

As if by magic, a life-supporting habitat is created for thousands of species of fish, birds and mammals. It's called an **Estuary**. This protected body of water, often partially enclosed by reefs, barrier islands or fingers of land, is distinct from all other places on earth. In fact, it is irreplaceable. You see, estuaries are the most productive ecosystems on earth, containing more life per square inch than the richest farmland or deepest forest.

National Coastweek, International Coastal Cleanup, and National Estuaries Day were the springboard for the kick-off of a new national awareness campaign "What's An Estuary? Now You Know." The national campaign is sponsored by a host of partners dedicated to make "estuary" an everyday household word like "river" or "ocean" by 2005. The campaign is being designed to reach millions of people across the country and to create public awareness of what estuaries are and how important it is to protect them.

For more information, access the campaign's website at www.whatsanestuary.com