



The Barnegat Bay Beat

Volume 4, Issue 2

Spring 2005

A Quarterly Publication of the Barnegat Bay National Estuary Program

Join the Barnegat Bay National Estuary Program for the 9th Annual Barnegat Bay Festival on Saturday, June 25, 2005, at a new location, OCEAN COUNTY COLLEGE, from 10am until 4pm.

Don't Miss the
9th Annual
Barnegat
BAY
Festival

Enjoy an entire day of Free Family Fun. Participate in fish printing, face painting, seedling planting and so much more. Environmental groups from the area will be there to answer any questions that you may have regarding the environmentally responsible ways that you can enjoy and protect the beautiful Barnegat Bay and its watershed. Join us for an all-day music festival, free cross-bay boat tours, and hands-on demonstrations. Artisans and crafters will be selling jewelry, marine art, photography and much more. Please visit our website at www.bbep.org or call 732.255.0472 for more information.

History of Barnegat Lighthouse Shines At New Interpretive Center

Alexander Butrym, Visitor Service Assistant

Barnegat Lighthouse State Park unveiled its new Interpretive Center at a grand opening on September 4, 2004. The "Story of Barnegat Lighthouse" is showcased in this newly renovated building. Once an obsolete bathhouse that stood vacant for nearly 15 years, this building has been adaptively reused to provide the visiting public with the interpretation of one of New Jersey's most recognizable historic landmarks.

The new Interpretive Center depicts the history of Barnegat Lighthouse from shipwreck to first class, seacoast light. Photos and text recount the vision of Lieutenant George G. Meade, the evolution of lighthouse technology, and the specific duties of Barnegat Lighthouse Keepers. A large panel entitled "Save Barnegat Light" focuses attention on efforts of the local community and federal, state and local governments to protect the lighthouse from erosion and ultimate destruction.

Visitors are provided with information about the changing nature of the coastline and the natural environment that surrounds the lighthouse, including Barnegat Bay, the Atlantic Ocean, and the maritime forest. Barnegat Lighthouse State Park contains one of the last remnants of maritime forest in all of New Jersey.

A gallery of antique photographs provides a glimpse of life at a lighthouse on the Jersey Shore in bygone days. These images portray the lure of the bay and the many ways people have used and enjoyed the resources of this region.

In its first two months of being open, more than 8,000 visitors from 37 states and 8 countries have viewed the exhibits. The Interpretive Center is closed in winter, but reopens on weekends in April and May from 9:00 a.m. until 4:30 p.m. Hours of operation will be extended during the summer season. For more information about the Interpretive Center and the park, or to find out how to become a volunteer at the park, contact Alex Butrym, Visitor Service Assistant, at 609-494-2016.



I n t h e C l a s s r o o m

Middle School Professional Development Opportunity - - The Interdependence of Life: Exploring the Marine Environment

This summer the Jacques Cousteau National Estuarine Research Reserve is offering a unique opportunity for middle school teachers to earn valuable professional development credits while spending five days working alongside marine scientists from the Rutgers University Marine Field Station. *The Interdependence of Life: Exploring the Marine Environment* will enable teachers to spend a week this summer exploring the connections between the physical environment and the distribution of living things, including how humans and all organisms are integral parts of an interconnected food web. All participants will receive a comprehensive "Marine Life" back to school kit that includes useful educational materials valued at \$150. This workshop will use the coastal environment to explore the theme of Interdependence of Life at the middle school level, as recognized in national education standards and benchmarks. The five days will include activities such as:

- Touring the habitats of the watershed, including the fresh water wetlands of the Pinelands, the salt-water wetlands of Great Bay, and finally the underwater habitats of Barnegat Bay aboard the research vessel "Arabella."
- Spending a day in the field exploring the connections between the producers and consumers in the marine environment. Participants will collect plankton samples, benthic invertebrates and participate in a fish trawl while exploring and applying how scientists use this kind of data to understand the diversity of marine organisms, competition, and distribution of species.

Dates: August 7-11, 2005

Place: Jacques Cousteau Coastal Education Center, Tuckerton, NJ

Grade level(s): 5-8

Cost: \$300, including 32 hours professional development credits

**More information may be found at: www.jcnerr.org/education or by calling
Lisa Weiss at 609.812.0649**



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 National Estuary Program, at Ocean County College, PO Box 2001, Toms River, NJ 08754-2001, OR email us at: sshinault@ocean.edu

BBNEP would like to welcome **Jeanine Cava** as our new program associate. Jeanine comes to our program as a Rutgers University alumni with wonderful Barnegat Bay Watershed work experience as the Water Watch Campus Coordinator for Ocean County College. She can be contacted by calling 732.255.0472 or emailing jcava@ocean.edu.

An Ocean Blueprint for the 21st Century

Dr. Bob Scro, Program Director

The Barnegat Bay and its watershed faces significant challenges in the 21st century, as does New Jersey's entire coast. The impacts of development, including stormwater pollution, reduced ground water supplies, habitat destruction, and competing human uses of marine waters are some important examples of issues being dealt with today, not only in Ocean County, but throughout the coastal United States.

Responding to the final report, "An Ocean Blueprint for the 21st Century," by the U.S. Commission on Ocean Policy, President Bush signed an executive order on December 17, 2004, to launch the Committee on Ocean Policy, which will oversee the implementation of a White House Ocean Action Plan outlining specific actions the administration has taken, or plans to take, to help protect ocean and coastal areas, including plans to improve research, manage fisheries better and control watershed-based nonpoint source pollution.

"An Ocean Blueprint for the 21st Century" describes more than 200 recommendations designed to make positive and lasting changes in the way we manage our oceans and coastal areas. The report recognizes what we, as partners in the Barnegat Bay National Estuary Program, have come to understand over the last 20 years of working together that a comprehensive and coordinated national policy requires moving away from the current fragmented single-issue way of doing business and toward ecosystem-based management. This approach considers the relationship among all ecosystem components, and will lead to better decisions that protect the environment while promoting the economy and balancing multiple uses of our oceans and coasts. The Commission considers the following actions essential:

- (1) A new national policy framework must be established to improve federal coordination and effectiveness, including strengthening support for state and local efforts to identify and resolve issues at the regional level.
- (2) It is critical that decisions about ocean and coastal resources be based on the most current, credible and unbiased scientific data and information.
- (3) Formal and informal coastal education should be strengthened to better engage the general public, cultivate a broad stewardship ethic, and prepare a new generation of leaders to meet future coastal policy challenges.

The recommendations include the creation of a \$4 billion government trust fund to pay for new ocean initiatives. The president did not agree to the trust fund. However, James D. Watkins, a former chief of naval operations who chaired the U.S. Commission on Ocean Policy, has described President Bush's response to the recommendations as a promising first step that will set in motion the important process of developing an ocean/coastal policy.

A recent conference at Monmouth University, "Our Future: Oceans, Estuaries and Wetlands," sponsored by the Jersey Shore Partnership, focused on the recommendations of the Commission's report and presented information on a wide range of ocean and coastal issues, with particular attention to New Jersey's coast. The conference was led by three members of the U.S. Commission on Ocean Policy, including its Chair, Admiral Watkins, Paul G. Gaffney II, Vice Admiral and President of Monmouth University, and Mrs. Lillian Borrone, formerly of the NY/NJ Port Authority. This forum provided a unique opportunity to gain insight from the Commission members on the challenges and management issues facing the New Jersey coast. Their primary emphasis was on the importance of working together in a coordinated way to initiate local and regional actions to help implement the Commission's recommendations. The BBNEP is well positioned to play a lead role in implementing several recommendations in the commission's report.

**An Ocean Blueprint for the 21st Century is available on the Internet at <http://oceancommission.gov>
The White House Action Plan is available on the Internet at <http://www.ocean.ceq.gov>**

Getting to Know Our Neighbors:

Want to Learn More about Northern Diamondback Terrapins?

By: Lea Pope, Marine Academy of Technology and Environmental Science Student

The Diamondback Terrapin is an amazing creature with many interesting characteristics. There are actually seven subspecies of terrapins ranging from Cape Cod down the coast of Texas. The subspecies of terrapin that is found in New Jersey is the northernmost found terrapin and is called the Northern Diamondback Terrapin (*Malaclemys terrapin terrapin*). They are the only turtle in the world that has adapted to living their whole life in brackish coastal marshes.

Northern Diamondback Terrapins are an average-sized turtle that exhibit physical sexual dimorphism. This means that the

females are two to three times larger than the males (see adjacent photo). The carapace (top shell) of the females can generally grow up to nine inches and can weigh approximately three and a half pounds. The males, however, usually only grow up to five inches and weigh a little less than a pound.

The carapace of the terrapin has a very distinct pattern. There are generally 13 costal scutes (shell plates fused to the ribs) on the shell. These scutes actually have a diamond-like shape to them, hence the name "diamondback." Terrapins have a background color combination of gray, brown, green, and black with circles of a brownish color, which actually can resemble those on a topographic map. Scutes on the plastron (the bottom shell) can be used to determine the age of the terrapin, similar to growth rings in a tree. However, as time goes on, with the wearing away of the shell, it becomes more and more difficult to age the turtle. After 10 years, it becomes nearly impossible to tell the age without using another method, which usually involves sampling of blood. As far as scientists have determined, terrapins can live up to 40-50 years.

Terrapins nest from June to July and can lay multiple clutches throughout the season. Their clutches generally contain anywhere from 4 to 18 pliable eggs. Eggs hatch in 64 to 105 days depending on the average air temperature. Hatchlings emerge in late summer or early fall and make their way to the high marsh area. Some hatchlings remain in the nest throughout the winter (called "overwintering"). This is because they can avoid late season predation and survive limited food sources.

Once the water gets colder, they then begin to prepare for hibernation, which occurs from November to the beginning of spring. When they come out of hibernation in the spring, they feed. Their diet generally includes mollusks, small crabs, and even some small fish.

Terrapins prefer the brackish water of an estuarine system which sets them apart from all other turtles. Unlike sea turtles that can survive at ocean salt levels, terrapins cannot tolerate prolonged periods of high salt levels. They are a delicate species that we have much more to learn about. That is why it is so important to protect these majestic creatures that are an integral part of the New Jersey marsh ecosystem.



N o r t h e r n D i a m o n d b a c k T e r r a p i n s

Threats to the Diamondback Terrapin

By: Heather Smith-Reinhart, Marine Academy of Technology and Environmental Science Student

In the late 1800's and early 1900's terrapins were hunted intensively because their meat was considered to be a gourmet delicacy. Terrapin soup was served in many of the finer restaurants on the east coast. By the mid-1930s terrapins had become so rare in the region that they were considered locally extinct. Once terrapins were no longer harvested, many populations recovered. However, there are still many threats the diamondback terrapin faces.

Due to the increased development of bay and shore areas, it is common for female terrapins to cross roads or highways to get to nesting sites. Many become severely injured or even killed during their attempts to cross the roads. The growing numbers of adult female terrapins killed by vehicular traffic is contributing to a decline in the size of the overall terrapin population.

Sadly, embankments along the sides of the roads crossing and adjacent to salt marshes are the most accessible habitat left for terrapins to nest. Nearly all of their original nesting habitats have been destroyed by humans who have converted the barrier beach islands into summer resort communities, which is their main threat. Dredging, filling, and marshland alterations have negatively impacted the environment that is critical to terrapin survival. In our area, the once suitable nesting sites are now replaced with lawns and bulkheads.

Another threat to the diamondback terrapin are crab traps. They are attracted to these traps because of shelter and the food source within it. Once within the trap they cannot get out and drowning becomes imminent. To help cut down incidental trap deaths, the By-catch Reduction Device (also known as a Turtle Excluder Device), a wire opening in the upper part of the crab pot, developed to prevent terrapins from entering the trap, was created. However, many still drown due to ghost traps, crab traps that have been taken away by the current or have not been retrieved. Throughout their range, thousands of terrapins drown in commercial traps each year.

Other threats to the terrapin include incidental kills by motor boats, egg predation by raccoons, muskrats, skunks, crows, and the pet trade. Diamondback terrapins will almost certainly become stressed in captivity because most people do not have the necessary salt water aquaria, which are both very expensive and difficult to maintain.

So please, if you find a terrapin on the side of the road, pick it up gently and carry it across the road in the direction that it is already heading. Remember, the marsh is their home and that's where they should stay!



PROJECT TERRAPIN

By: Marine Academy of Technology and Environmental Science Class

Project Terrapin's goal is to study populations and promote the conservation of the Northern Diamondback Terrapin in the Barnegat Bay Estuary. The project includes identifying key nesting areas, studying nest conditions, hatching success of eggs, and hatchling survivorship. The project is also identifying if there is a relationship between submerged aquatic vegetation (SAV) beds and terrapin population size structures throughout the estuary. Project Terrapin is volunteer-based with field studies and educational components. It also includes students and educators conducting hands-on research so that they could bring their experiences back to the classroom.

Please help Project Terrapin's efforts by providing assistance and/or supplies to support this project. Supporters will be updated through a newsletter and website updated by the MATES program, one of the local schools which support this project. The web address is www.ocvts.org (click into "classroom connection" and under the "instructor's page" - click into the name - "Wnek"). Please contact adoptaterrapin@aol.com or call (732) 814-6644 for more details.

John Wnek is the research coordinator with Project Terrapin on Barnegat Bay, N.J. He is an instructor with the Marine Academy of Technology and Environmental Science.

FESTIVAL FUN! • FESTIVAL FUN! • FESTIVAL FUN!

Don't miss the 9th Annual Barnegat Bay Festival

Saturday, June 25, 2005 from 10 am to 4 pm at Ocean County College

Hosted by the Barnegat Bay National Estuary Program and Ocean County College

This event is made possible by our gracious sponsors:

Snowy Egret (\$1000):

- Ocean County Board of Chosen Freeholders

Peregrine Falcon (\$500):

- Barnegat Bay Watershed and Estuary Foundation
 - Gangi Graphics
- Ocean County Utilities Authority

Main Stage Agenda

10:00 -11:30 TBA

11:30-1:30 Casplash
(One of New York City's hottest bands for Caribbean music and much more)

1:30-2:00 Guardians of Barnegat Bay Awards Ceremony

2:00-4:00 The Pickles
(Jersey Shore's Extreme Party Band)

NOVINS PLANETARIUM

One of the largest and most active planetariums in New Jersey located on the Ocean County College Campus

Planetarium show:

Wonders of the Night Sky

11 AM, 12:30 PM & 2 PM

Discount Admission \$4.00

Lobby exhibits available throughout the day.

Spacey Kids crafts 10:30 - 4 PM in the Planetarium Craft Room

Gift shop on premises

Children's Activities



A children's basket-weaving class will be held from 10-12 noon and will be free of charge. No pre-registration will be necessary for the kids.



Get dazzlingly decorated with a free airbrush tattoo by Dana Endresen.



Jenkinson's Aquarium will be leading marine crafts for children of all ages.



Stop by the Marine Academy of Technology and Environmental Science booth to participate in a contest for the best turtle drawing.



Visit the Ocean County Freeholders Public Affairs booth to make your own Watershed Willy, the storm drain mascot of the Barnegat Bay watershed!



The staff and volunteers from the Jacques Cousteau National Estuarine Research Reserve will once again offer kids an opportunity to try the ancient art of fish printing.



Sparkles the robot and Sam the Tuna puppet show will be entertaining kids of all ages!

Enjoy food, fun and festivities throughout the day...rain or shine!



Visit the Stormwater Information Booth and learn easy things you can do every day to protect our water from Stormwater Pollution.

Don't miss the addition of our all-day movie room and slide presentations. Come see wonderful photos and footage about the environment and the Barnegat Bay Watershed!

If you are interesting in becoming a festival volunteer, please contact Mary Judge at 732.255.0472.

FESTIVAL FUN! • FESTIVAL FUN! • FESTIVAL FUN!

Activities Requiring Registration

Please call Mary Judge at 732-255-0472, ext. 3 to pre-register.
Space is limited. First come, first served.

Adult Basket-Weaving Class

Enjoy a basket-weaving class given from 1-3 p.m. by Mary May. Weave your own "South Jersey Berry Basket." (\$10.00 fee for materials) The class should take about an hour and a half and you will be able to take your hand-woven basket home to show off to your friends and family. Class size is limited.

Bus Tour

Join Rutgers Cooperative Research and Extension's Jan Larson on a 3-hour tour of the environmentally sensitive and historically significant Barnegat Bay Watershed. Bus departs Ocean County College Parking Lot #2 at 10:00.
(Bring a bag lunch.)

Back Bay Ecotour

Join resident naturalists for a 1.5 hour paddle through seldom seen habitats in the Barnegat Bay in two-person canoes. Canoeing experience preferred. Must be at least 14 years old. Tour departs promptly from Ocean County Parks Administration Building located off Fischer Boulevard in Toms River. Remember to bring bug spray, sunblock, water, and water shoes...old sneakers will do.

Trip 1: Departs at 10:30 AM

Trip 2: Departs at 1:00 PM

Bring Some Extra Jingle In Your Pockets

Beautiful environmental crafts will be available for purchase such as: jewelry, photography, stationary, clothing, picnic items, original oil paintings, custom fishing rods, household decor, beach totes, all natural and homemade dog biscuits and treats, books, baskets, hair accessories, pottery, ornaments, bird feeders, bird houses, and so much more.

**Please park in Parking Lot #2.
Handicapped parking available in
Parking Lot #1**

Directions to Ocean County College

From the North or South

Use Exit 82 from Garden State Parkway. Proceed east on Route 37 towards Toms River/Seaside Heights. Go about one mile (2 traffic lights). Turn at jughandle to Route 549 north (Hooper Avenue). Proceed 3 miles to jughandle leading to Ocean County College campus in Toms River.

Access Road From the West

From Route 9 north or south, take Church Road east. Proceed 1.5 miles to access road (H. George Buckwald Drive) intersection. Turn right onto Buckwald Drive. The drive ends at College Drive near Lot #2.

From the West

Use Route 70 to Lakehurst; then take Route 37 east to Toms River/Seaside Heights. Turn at jughandle to Route 549 north (Hooper Avenue). Proceed 3 miles to jughandle leading to Ocean County College campus in Toms River.

Free Barnegat Bay Boat Tour

Step aboard the Baycruiser, the new educational pontoon boat. A shuttle bus departs OCC every hour starting at 10:00 to the Parks Administration Building where the adventure starts.
First come, first served.



Sub-aqueous Vegetation Sediment Classification System and Mapping Study for the Barnegat Bay

***The Ocean County Soil Conservation District in Cooperation with the
USDA - Natural Resources Conservation Service***

The Sub-aqueous Vegetation (SAV) Sediment Classification System and Mapping Study for the Barnegat Bay (SCMS), prepared by The Ocean County Soil Conservation District in Cooperation with the USDA - Natural Resources Conservation Service is a study to determine if a relationship exists between bottom sediment and SAV. It is hoped that any such possible correlation may help explain the causes of the loss of SAV beds that has occurred during the past forty years and suggest actions to restore SAV to prior levels.

The study area, just west of Island Beach State Park, did show that certain sediment characteristics consistently support SAV. Similar to an upland drainage catena from ridge top to valley bottom on a downward sloping toposequence, decreasing aeration negatively impacts SAV production. Aerated soils have little or no organic accumulation on the surface. Less aerated soils have thick black mineral surfaces and the wetland equivalent is a muck soil with a thick organic surface. The water column is similar to the gaseous atmosphere over upland areas. The water column is the mechanism to deliver oxygen to the ecosystem and the soil surface.

When the upper 4 inches of sediment, on a weight basis, is comprised of than 60% medium or 60% fine sand or more than 70% when coarse sand is added to either fraction separately, SAV is consistently healthy. The geometry of the particle-to-particle porosity of these relatively uniformly-sized sand grains supports the free flowing exchange of water-carrying oxygen from the overlying water column and the removal of metabolic wastes, mainly hydrogen sulfide. This sand mixture is usually found on convex ridges and the upper side slopes in water that is 2.5 to 6.5 feet deep. The sediment usually has an organic layer of less than ¾ inch thick and is underlain with a thin black surface and dark gray subsurface. Other than the fact the soil is under water, the upper two inches of soil look very similar to an upland soil in the forest with a thin accumulation of organic matter at the on-the-mineral surface. In this setting, the combination of tide and landform propels currents sufficiently to limit settling of finer particles or organic debris which can clog the pores between the sand grains and prevent the release of hydrogen sulfide produced in or below the root zone from being released or exchanged to the water column above the soil. Where the toxic hydrogen sulfide accumulates in the root zone it stricken the SAV or eventually kills the plants.

Unlike sandy textured upland soils, when fine particle and/organic matter are added the soil increases the efficiency of gas and water cycling through building soil structure and the resulting large diameter aggregate-to-aggregate porosity. However, in the sodium saturated dispersed condition of the estuarine sediment, only particle-to-particle is possible and the accumulation of fine and organic debris act instead to clog pores and reduce gaseous exchange.

Map units based on landscape were delineated using NOAA bathymetric data, color infrared photography and water depths and sample characteristics observed in the field.

In conclusion, landform and the resulting coarser non-transportable mineral sediments are relatively permanent properties of the ecosystem. Transportable fine particles and increased organic accumulation on and in the sediment surface is detrimental to SAV. Management of the watershed to reduce erosion of fine particles and reduction of nutrients that stimulate algae growth will change properties of the water column and influence future sedimentation. In addition, restoration of drained, filled and otherwise degraded upland wetlands and estuarine tidal wetlands would further improve the trapping of sediment and removal of nutrients from both surface and groundwater flowing into the Bay. The implementation of both prevention and water treatment alternatives offer the best opportunity to restore production of SAV in Barnegat Bay.

A Project Funded In Part by the Barnegat Bay National Estuary Program

To view the report in its entirety, visit www.bbep.org/downloads/sediment.pdf

Get Your Backyard Ready For Spring!

Georgina Lentini

Spring brings the world of backyard birds and nature into our yards. By getting your backyard ready now, you will have a front-row seat to enjoy the greatest variety of wild birds and their fascinating behaviors throughout the spring and summer months.

So where do you begin? To attract and enjoy more birds and wildlife, consider providing the four basic habitat elements: food, water, cover, and places to raise young.

Start by preparing your yard for spring and summer feeding. First, inventory and clean your feeders and fill them with quality bird seed and blends. Maybe you'll want to add specialty feeders to your feeding stations. Add a hummingbird feeder for the tiny jewels or fruit feeders for a variety of fruit-eating birds, like orioles or mockingbirds. These feeders should be put out early in the season, before plants have had a chance to bloom. The birds will appreciate the additional early food source. A suet feeder can offer calcium-rich suet cake to help the birds lay stronger eggs.

Next, make a splash with the birds by adding water to your yard! The sound of running or dripping water is irresistible to our feathered friends. Adding a birdbath, dripper or mister can attract many species such as warblers, thrushes, bluebirds, robins and mockingbirds that might not normally come to your seed feeders. Hummingbirds love flying thru a mist of water to clean their feathers. Goldfinches will sit on the end of a dripper, and catch the water droplet as it leaves the spout.

Try your hand at landscaping by planting native trees and plants that bear fruit in the summer and late fall, providing food for fruit-eating birds in the winter. A variety of evergreens, shrubs, deciduous trees and flowers will provide protective cover for the birds. Don't clean up the leaf litter right away. The insects that have over-wintered will emerge and help feed the birds. Praying mantis eggs will hatch and become your best defense against the insects that can infest a garden. Ease back on using chemical fertilizers. Let Mother Nature's natural controls take over. You, your family, and all the wildlife will benefit.

Encourage birds to call your yard home by putting up a nesting box and protect it from predators, like cats. Provide materials to help them build their nests - bits of string and yarns are great and readily available. This will allow you to observe the many fascinating behaviors as birds raise their families near your family. And they will bring their babies to your feeders.

Finally, sit back and relax and enjoy the show. Give yourself a pat on the back for the spectacular natural world you've helped create.

Come see Georgina in her new Wild Birds Unlimited store opening soon on Rte. 37 in front of B.J.'s or by phone at 732-929-0004; www.wbu.com/tomsriver.

Local Flavors

Jeanine's Special Vegetarian Burger

4 Servings

submitted by

Jeanine Cava

Four medium-sized portobello mushrooms, cleaned and placed in a broiling pan top side down. Cover the bottom of the pan with olive oil and then fill the caps of the mushrooms with balsamic vinegar; pour more vinegar in the pan. Bake at 350 degrees for 30 minutes or until soft. Broil for last 10 minutes.

Meanwhile, dice one red onion and one ripe red tomato and mix together; add salt, pepper and a bit of oil and balsamic vinegar and chill in the fridge.

Spread one package of goat cheese evenly onto each of four lightly toasted whole wheat rolls.

Place tender mushrooms on bottom half of roll, then onion and tomato mix, then baby leaf spinach, then goat cheese, then top of roll, EAT!!

2005 Barnegat Bay Minigrant Award Recipients

The Barnegat Bay National Estuary Program is happy to announce the recipients of the 2005 Minigrant awards for public education and participation. The Minigrant program was designed to motivate people to participate in protecting and restoring the Barnegat Bay watershed. The Review Committee awarded \$28,000 to the ten proposals listed below. This Minigrant Program is open to individuals, organizations, businesses and government agencies.

Alliance for a Living Ocean (ALO): Seining Days, a program to educate residents and visitors about the marine inhabitants of the Barnegat and Little Egg Harbor Bays through the hands-on activity of seining. Emphasis is placed on the important role every individual plays in protecting the marine environment.

Dianne M. Nast and Anastasia Nast Roda: "It's More Than a Vacation Spot" brochure to educate visitors about the Barnegat Bay estuary, their potential impact on the estuary, and how they can protect the estuary.

Save Barnegat Bay: Restoration and Conservation Programs at Island Beach State Park, including planting 33,000 dune grass culms on primary dunes, research and management of ospreys, as well as surveying work of marine grasses and macro algae.

Ocean County Vocational-Technical Schools MATES Program: A program to incorporate Barnegat Bay research directly into the classroom at all levels. The program actively involves participants in a research project, gathering data to develop lessons and presentations to be used through the BBNEP.

Boy Scouts of America: To further educate the Scouts attending the Boy Scout Summer Camp about the Barnegat Bay ecosystem. The expansion of the Conservation-themed Merit Badges (Environmental Science, Fish & Wildlife Management, Soil & Water Conservation, Bird Study & Oceanography) will be more specific to the Barnegat Bay area.

Ocean County Soil Conservation District: Sponsor the 2006 Environmental Educators' Roundtable to provide training for teachers, promote the use of the Discovering Barnegat Bay Activity Guide, facilitate the sharing of resource information and ideas, and provide hands-on opportunities that can be carried back to the classroom.

Rutgers Cooperative Research and Extension of Ocean County: Creating a curriculum on the ecological and cultural importance of shellfish and their restoration, "What the bay hinges on."

Seaside Park Recreation Department: S.P.E.N.D. (Seaside Park Educational Nature Day) the Day in the Park, a program to foster clear awareness of concern about economic, social, political and ecological interdependence in urban and rural areas and to create new patterns of behavior for individuals, groups and society as a whole toward the environment.

Literacy Volunteers of America of Ocean County: Create a learning module and educational brochures to assist low-literacy and non-English speaking adults in gaining a greater understanding of Barnegat Bay National Estuary Program concerns.

Barnegat Bay Decoy and Baymen's Museum: Create the Tuckerton Seaport Horseshoe Crab Project to increase awareness of horseshoe crabs and provide a free professional development workshop for educators.

W h e r e ' s B a r n e y ?

A big congratulations goes to Eileen Giffoniello, the first person* to respond with the correct answer to the last edition's location (which was: Eno's Pond County Park in Lacey Township).

Barney keeps exploring. Think you have the answer to this month's location? Be the first to email the correct answer to sshinault@ocean.edu to receive your Barnegat Bay tote bag.

* (after prior winners, Dave McKeon and Sharon Anderson relinquished the prize)

Attend the Barnegat Bay Festival and "keep your eyes peeled" for Barney...he is planning to make an appearance!



Are You Breeding Mosquitoes?

Charlie Mayer, Ocean County Mosquito Commission

Summertime is around the corner and that means that mosquitoes won't be far behind. While the Ocean County Mosquito Commission can control mosquito breeding in the local swamps, bogs and marshes, it is important to know that there's something that residents can do to help control mosquitoes.

Mosquitoes require pooled, stagnant water for a part of their life cycle. Without this, they will not develop into the adult stage (the flying and biting kind!). Anything around the house that could collect and hold water has the potential to become a breeding site for a number of mosquito species.

Homeowners can help! If you get rid of the collected water, you can eliminate the potential breeding sites. Here's a list of sites to look for around the home:

- canoes and small boats
- bird baths with water more than 3 days old
- garbage cans and garbage can lids
- unused swimming pools that have become stagnant
- tarp covers that have collected water
- clogged gutter that don't allow water to flow freely
- old tires holding water
- small unkept wading pools
- clay pots, plastic containers, flower pots, dishes, etc.
- old toys left outside

Make sure to maintain or eliminate whatever breeding sites you have found to stop further mosquito production. If you have any questions, contact the Ocean County Mosquito Commission at 609-698-8271.

Remember, Mosquitoes bite the hand that breeds it!

www.bbep.org

Have you visited the Barnegat Bay National Estuary Program's website lately? The website has undergone a total renovation with generous help from web designer, Glenn Foster. Please take the time to visit our new site!

Ocean County College
Barnegat Bay National Estuary Program
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PO Box 2001
Toms River, NJ 08754-2001

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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@ocean.edu 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.

The Barnegat Bay Beat

Barnegat Bay National Estuary Program

Dr. Robert Scro
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