

Buried Forest Emerges at South Cape Beach: Watch your step but take a second look

Scores of old tree stumps and concentrations of tangled roots now stick out of the sand near the low tide waterline at South Cape Beach in Mashpee, poking their dark stubby tops above the sea surface. The recurring storms of March 2010, packing strong southeasterly winds and waves, caused significant erosion to some parts of the Nantucket and Vineyard Sound south-facing shoreline. The removal of tons of overlying beach sand has allowed the long hidden and buried remains of what was once a coastal plain forest to emerge on the ocean-side of the beach.

Sharp stumps and tangled roots make the area hazardous to swimmers and fishermen; the Massachusetts Department of Conservation and Recreation (DCR), which manages the beach, is therefore limiting these activities in the immediate area. Safety issue aside, however, the find is “scientifically very interesting” says Dr. Chris Weidman, the Research Coordinator for DCR’s Waquoit Bay National Estuarine Research Reserve (WBNERR), of which the state beach is a part. According to Dr. Weidman, the “forest may be quite old, perhaps 200 to 1000 years,” based on the



stumps’ sub-tidal elevation relative to today’s sea level.

“This is classic evidence of shoreline retreat,” says Dr. Weidman, “a forest of what looks like mostly juniper trees is now exposed at low tide.” He suggested that the coast has now eroded

back and sea level has risen, so that what was once forest is now a few feet underwater. Even though coastal scientists have long known that Cape Cod is eroding away and that the ocean is rising, this is a dramatic illustration of dynamic coastal processes at work. The exposure of this old forest may now provide scientists at WBNERR an opportunity to measure the local rate of sea level rise more precisely. Who knows what the sea will reveal next?

Congratulations! - We’re proud to report that **Lisa Greber**, who was awarded a NERRS/NOAA graduate research fellowship to study how to better engage religious communities in the reserve’s mission has been awarded the **2010 Walter B. Jones NOAA Excellence Awards for Coastal and Ocean Resource Management**. Her study can be found at www.waquoitbayreserve.org .

The Incoming Tide: What’s New with Education

2009/2010 has been a year of innovation in the WBNERR education department with the launch of several new programs. **Teachers on the Estuary** is a multi-day teacher training workshop that offers teachers a chance to get out in the field with researchers while learning how to bring coastal research alive for their students. This NOAA-funded program is offered at three New England reserves and is a pilot for a national program.

TIDAL Quest (Teens Investigating Diversity of Aquatic Environments) brings high school students to the Reserve to learn about careers in marine science by shadowing reserve researchers. This program is part of Summer Science in New England, a NOAA-funded program which will also allow the students to participate in the worldwide Marine Life Census. In 2009 and again in 2010, the Reserve offered an **Environmental Leadership Course for immigrants** on Cape Cod. Once trained, these ambassadors help spread the word about environmental issues to others in the immigrant communities.

Reserve to Step Up Stormwater Training Courses

Starting this fall/winter, the Coastal Training Program (CTP) plans to ramp up its stormwater training programs to meet the growing demand for more information on this subject. Stormwater run-off is one of the main ways in which pollutants such as excess nitrogen get delivered to coastal water bodies ultimately causing water quality impairment.

Audience assessments conducted by the CTP will be used to target trainings to address information needs that are not currently being met.

To begin this process, on May 5, the CTP offered the workshop **“Beyond Pipe and Pond: A Research Based Approach to Stormwater Treatment System Selection”** for engineers and others involved in the design or review of stormwater treatment. The workshop was based on research conducted at the University of New Hampshire’s Stormwater Center. 100 % of participants reported that the course helped to both improve their knowledge of stormwater treatment system design issues and expose them to useful resources. 97% of participants intend to apply knowledge gained in their work. This successful event reflects the type of high quality training that the CTP will be rolling out over the next year.



Partners to Bring Back a Vanishing Rabbit

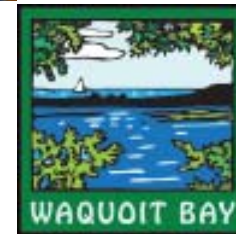


The New England Cottontail, the only endemic cottontail found east of the Hudson River, has suffered a steep population decline in recent decades. Once considered common throughout southern New England, this species can no longer be found in about 86% of the range it occupied in 1960. This decline has been primarily attributed to habitat loss and fragmentation. The New England Cottontail prefers early successional forests, often called thickets, with thick and tangled vegetation. These young forests are generally less than 25 years old. Once large trees grow in a stand, the shrub layer tends to thin, creating habitat that the New England Cottontail no longer finds suitable.

The rabbits that the public often sees in open lawns and fields are the introduced Eastern Cottontail. It is nearly impossible to distinguish a New England cottontail from an Eastern Cottontail by looking at them. In the past, scientists had to rely on examining the rabbits’ skulls for positive identification, but can now use DNA analysis of fecal pellets.

The Reserve has been actively working with its Mashpee National Wildlife Refuge Partners to locate remaining populations of New England Cottontails in Mashpee and Falmouth through fecal pellet collection and live trapping. This effort has been very successful and many new individuals or populations have been confirmed locally. The next step will be working with the partner agencies and the public to identify focal areas for habitat restoration.

Partners in these efforts include the US Fish and Wildlife Service, Massachusetts Division of Fisheries and Wildlife, the Town of Mashpee, Orenda Wildlife Land Trust, Falmouth Rod and Gun Club, and the Mashpee Wampanoag Indian Tribal Council, Inc.



Park Passport Program Strives to Get Children Outdoors!

The Department of Conservation and Recreation (DCR) continues its Park Passport Program that includes Waquoit Bay Reserve. Visitors can obtain a free Passport Book and at each state park they visit there is a special box with a stamp individually designed for that location. Collecting the stamps will serve as a catalyst for exploring new parks and is designed to encourage outdoor activity for children and their families. Contact the Reserve or any Massachusetts state park for more information or check the web site www.mass.gov/dcr

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SUMMER





SCHEDULE 2010




Master Plan in the Works

From the Manager's Desk:

The Waquoit Bay Reserve recently received funding from the Department of Conservation and Recreation's Partnership Program, along with matching funds from the National Oceanic and Atmospheric Administration (NOAA) to create a Master Plan for Reserve Headquarters. In the coming months, the Reserve will hire an architect to develop a plan to increase the usefulness of the buildings and grounds

to Coastal Training Program audiences, researchers, students, teachers, community groups, and visitors.

Our hope is to phase in implementation of the Master Plan over several years by tapping into NOAA's construction money available to the 27 National Estuarine Research

Reserves around the country, which also requires a 30% state match. Part of my goal as the manager is to increase awareness of the research, education and stewardship efforts. Reaching this goal will involve letting people know we're here and what we do, as well as upgrading our facilities and grounds so we have more to offer them when they do come.

One example is the Coastal Training Program, which translates the science of issues including wastewater, storm water, and green energy to coastal decision makers. This program has been so successful that our facilities cannot keep up with demand, a bigger meeting space is likely to be part of this project. We will also look at our laboratory which is in need of updates to keep up with the ever changing research needs, and evaluate the Visitor Center and exhibits.



We are in the very beginning phases of planning, and there will be ample opportunity for input along the way. We are sensitive to the historical and ecological significance of the site, and will convey those concerns, as well as a strong desire to build "green," to the architects. One of NOAA's credo's is to "let your buildings and grounds be your exhibit." In other words, in the way we design, construct and manage our buildings and landscape, we can demonstrate good stewardship practices to others, and use these features as educational opportunities.

JULY

Day	Date	Time	Program
TH	1	3:00-4:30PM	Jr. Ranger Program (ages 8 - 12) & Shoreline Stories (under age 8)
F	2	9:00-11:00AM	South Cape Beach Walk -Creatures of the Cove: <i>Hands on Discovery</i>
Sa	3	10:00-11:30AM	Washburn Island Walk - Estuaries <i>Alive: Hands on Discovery</i>
W	7	11:00AM	All Hands on Deck - South Cape Beach
TH	8	3:00-4:30PM	Jr. Ranger Program (ages 8 - 12) & Shoreline Stories (under age 8)
F	9	9:00-11:00AM	South Cape Beach Walk - Wrack-line Revealed: <i>A Search for Tidal Treasures</i>
Sa	10	10:00-11:30AM	Washburn Island Walk - Specialized Species: Featuring Native Plants both Common and Rare
T	13	6:30PM	Evening on the Bluff - <i>Jackson Gillman the Stand-up Chameleon</i>
W	14	11:00AM	All Hands on Deck - South Cape Beach
Th	15	3:00-4:30PM	Jr. Ranger Program (ages 8 - 12) & Shoreline Stories (under age 8)
F	16	9:00-11:00AM	South Cape Beach Walk - Native Plants: <i>Perfectly Adapted for Coastal Living</i>
Sa	17	10:00-11:30AM	Washburn Island Walk - Washburn and the World War II Connection
T	20	6:30PM	Evening on the Bluff - Comic Mime Robert Rivest
W	21	11:00AM	All Hands on Deck - South Cape Beach
TH	22	3:00-4:30PM	Jr. Ranger Program (ages 8 - 12) & Shoreline Stories (under age 8)
F	23	9:00-11:00AM	South Cape Beach Walk - Wings Over Wetlands: <i>Coastal Birds both Common and Rare</i>
Sa	24	10:00-11:30AM	Washburn Island Walk - A Look at Wild Edibles from Sea and Shore
T	27	6:30PM	Evening on the Bluff - Favorite Nature Tales by Diane Edgcombe
W	28	11:00AM	All Hands on Deck - South Cape Beach
TH	29	3:00-4:30PM	Jr. Ranger Program (ages 8 - 12) & Shoreline Stories (under age 8)
F	30	9:00-11:00AM	South Cape Beach Walk -Creatures of the Cove: <i>Hands on Discovery</i>
Sa	31	10:00-11:30AM	Washburn Island Walk - Estuaries <i>Alive: Hands on Discovery</i>

AUGUST

Day	Date	Time	Program
W	4	10:00AM-4:00PM	Seaside Garden Tour-Citizens for the Protection of Waquoit Bay
W	4	11:00AM	All Hands on Deck - South Cape Beach
TH	5	3:00-4:30PM	Jr. Ranger Program (ages 8 - 12) & Shoreline Stories (under age 8)
F	6	9:00-11:00AM	South Cape Beach Walk - Dynamic Shore: <i>Erosion and the Rising Sea</i>
Sa	7	10:00-11:30AM	Washburn Island Walks - Cultural and Natural History
T	10	3:00-6:30PM	Watershed Block Party- <i>Don't miss the biggest event of the season!</i>
W	11	11:00AM	All Hands on Deck - South Cape Beach
TH	12	3:00-4:30PM	Jr. Ranger Program (ages 8 - 12) & Shoreline Stories (under age 8)
F	13	9:00-11:00AM	South Cape Beach Walk - Salt Marsh Rebirth: Tour a Restored Wetland & Observe the Changes
Sa	14	10:00-11:30AM	Washburn Island Walk - Shifting Shape of a Barrier Island: <i>Climate Changes & Coastal Geology</i>
W	18	11:00AM	All Hands on Deck - South Cape Beach
Th	19	3:00-4:30PM	Jr. Ranger Program (ages 8 - 12) & Shoreline Stories (under age 8)
F	20	9:00-11:00AM	South Cape Beach Walk - Wrack-line Revealed: <i>A Search for Tidal Treasures</i>
Sa	21	10:00-11:30AM	Washburn Island Walk - Estuaries <i>Alive: Hands on Discovery</i>
W	25	11:00AM	All Hands on Deck - South Cape Beach
F	27	9:00-11:00AM	South Cape Beach Walk - Creatures of the Cove: <i>Hands on Discovery</i>

Volunteers Needed - If you can spare a few hours per week we would love to talk to you about volunteer opportunities. We'll match you with a job that fits your schedule and interests. Over the next few months our researchers, educators and Stewardship Coordinator could use help in the following areas; field trip and **interpretive program** assistants; Visitor Center Greeters; Special events help - publicity, parking attendants, t-shirt sales; **Wildlife monitoring** and survey assistants for shorebirds, ospreys, song birds, horseshoe crabs, salt marsh fish and crab species; **Land Stewards** - Trail projects, invasive species removal, trail monitors, installing signage, painting and carpentry; **Administration**- copying, laminating, data entry, phones, press releases, distributing flyers.



SUMMER PROGRAMS

All programs free of charge

All Hands on Deck

Wednesdays in July and August @ 11:00AM

Meets on the wooden deck at South Cape Beach State Park

Join a park naturalist and discover cool creatures that live in the waters, wetlands and coastal uplands. A great opportunity to identify your unique beach treasures so bring them along.

Junior Ranger Programs (ages 8 to 12) and Shoreline Stories (under age 8)

Thursdays-3:00 – 4:30 PM – July 1st through August 19th

Meets at the Reserve Visitor Center, 149 Waquoit Highway (Route 28)

Children ages 8-12 become scientists as they explore outdoors, conduct experiments and use scientific equipment to learn about plants and animals along the coast. Come prepared for shoreline investigations, games, and lots of fun. Younger children are invited for story time and activities of their own. Program meets rain or shine. Register for one program or the whole series.

Children must be accompanied by an adult.

Evenings on the Bluff

Tuesday Evenings in July

Join us for lively entertainment with an environmental twist each week overlooking beautiful Waquoit Bay. Bring a picnic, chair or blanket.

Washburn Island Walks

Saturdays in July and August from 10:00AM -11:30AM

(Own Boat transportation required- Meet at the Island Campground Beach)

Join an island manager for a fun and informative foray to various sites around the island to discover the history and wildlife of this unique coastal resource.

Discovery Days at the Waquoit Bay Reserve Visitor Center

Saturdays in July and August from 10 AM to 4:00 PM

Trail Hikes Osprey Viewing Scavenger Hunt Nature Books

Simple Crafts Microscopes Discovery Back Packs Exhibits

Visitor Center Open Monday-Saturday during July and August from 10:00AM to 4:00 PM

Let's Go N'Seine

Saturdays from July 3rd through August 21st at 10:00 AM

Meet at Reserve Visitor Center 149 Waquoit Highway (Route 28)

Explore the bay with an interpreter using dip nets, magnifiers, buckets and a large seine net to sample for local critters. Please wear shoes that can wet. No bare feet.

Watershed Block Party - Tuesday, August 10 - 3:00 PM - 7:00 PM

Come and meet your watershed neighbors, local organizations and our interpretive and research staff. Enjoy an afternoon of activities including netting in the bay, mini-science experiments, games, face painting, and arts and crafts for kids.

UNIVERSAL ACCESS

A beach wheelchair is available at South Cape Beach and for most South Cape Beach Walks. Ask the gate attendant or call to reserve at least one day in advance. A companion is required to push the chair. (508-457-0495, ext. 100).

Assistive listening devices will be available for use for programs this summer.

To request a sign language interpreter please call 508-457-0495, ext. 107. Please give us as much advance notice as possible to provide interpreters.

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