


 BHI CONSERVANCY'S
CONSERVATOR

State of our Beaches

By Tom Hancock, Ph.D.
Director of Conservation, BHI Conservancy

In the spring of 2009, the Army Corps of Engineers performed maintenance dredging on the Cape Fear River as, BHI residents and Conservancy staff alike watched alarmingly large amounts of sand erode from 'the point' (confluence of West and South Beaches). Paul Hearty, then Director of Conservation, made preliminary measurements of sand loss into the channel which stands a mere 200 yards offshore. In order to consistently and accurately monitor the rate of dune loss and gain on all BHI beaches,



Staff photo

Conservancy staff established a system of twenty-eight transects (lines) that run from a fixed point in the dunes to the seaward edge of vegetation, perpendicular to the shoreline. These transects are spaced evenly apart, beginning at Beach Access #1 and ending near the last house on East Beach. BHI

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Year in review plus what is new for 2013

By Tracey Ritchie, *Director of Education, BHI Conservancy*

Can you believe that it is December already? It was exactly this time last year that I was just learning that Bald Head Island even existed! It was early December that I first saw the Director of Education position posted and thought to myself, what a dream job! A year later, I am still completely in awe of this island and inspired daily by the commitment of its residents to the preservation of all its natural wonders.



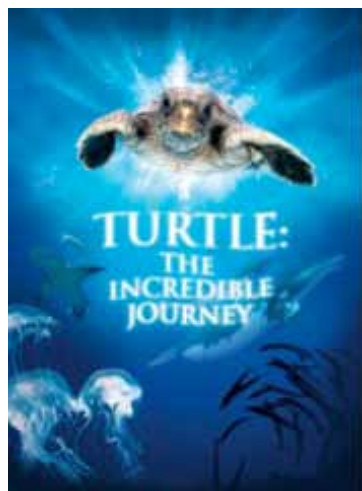
During 2012 we saw many successes at the Conservancy. Overall the Education Department saw an increase in attendance numbers and

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Education Updates

Year in review plus what is new for 2013— Continued from page 1

by Tracey Ritchie, *Director of Education*



revenue through our programming efforts. We focused on our mission of living in harmony with nature as a theme through all of our programs and camps. We educated, inspired and called to action nearly 19,000 adults and children to become better stewards not only of

Bald Head Island, but at their homes as well. With the opening of the Barrier Island Study Center in April we were able to expand programming to include the sea turtle movie, Touch Tank Time and hands-on dissection programs.

As we start to look forward to and plan for 2013 we are so excited to celebrate our 30th Anniversary! This is a huge milestone for our organization. We are seeing the results of the hard work of our founders as sea turtle hatchlings helped to the ocean 30 years ago are now returning to our beaches to lay their own nests.

Another element we are excited to celebrate is a return to the roots of our organization: the volunteers. In order to continue to grow and better serve our community, we need your help! We will be recruiting volunteers to help in Turtle Central, leading education programs and supporting our Conservation Department through citizen science.

We will also be introducing several new and exciting programs in 2013! Have you ever wanted to venture out with us in the beach vehicle (UTV), but are on the opposite sleep schedule than the sea turtles? Well now you can! East Beach Birding will start in the spring once the weather warms up. Hop in the UTV with us to access distant parts of BHI! Explore shore birds and other wildlife all the way to the Fort Fisher line. Look forward to expanding

programs for children and families, including Story Time, Reptile Round Up and other engaging new activities. Some of our veteran programs will also be getting a facelift in 2013! Explore the beaches with us during CSI: BHI- Beachcombing Edition as we use our detective skills to investigate evidence scattered along the sand.

Thank you to everyone that helped support the



Education Department during this very exciting transition year for Kendyll and myself. We are looking forward to an even bigger and better 2013!!! Best wishes for a joyous and peaceful holiday season with your friends and family!

January Programs:

Birding BHI

Mondays, January 7th, 14th, 21st, and 28th from 9:00-11:00am.

Echinoderm Exploration: A hands on sea star dissection

Fridays, January 4th and 18th from 1:00pm-2:00pm .

WHOOO Did Your Owl Eat? A hands on owl pellet dissection

Fridays, January 11th and 25th from 1:00pm-2:00pm

Island Nature Tour

Thursdays, January 3rd, 10th, 17th, 24th, and 31st from 9:00-11:00am

Maritime Forest Hike

Fridays, January 11th and 25th from 9:00-10:30am

Middle Island /Ibis Sanctuary Hike

Fridays, January 4th and 18th from 9:00-10:30am

Sea Turtle Movie Screenings

Tuesdays, January 8th, 15th, 22nd, and 29th from 1:00pm-3:00pm

Saturdays, January 5th, 12th, 19th, and 26th from 1:00pm-3:00pm

Touch Tank Time

Wednesdays, January 2nd, 9th, 16th, 23rd, and 30th from 1:00pm-2:00pm

Saturdays, January 5th, 12th, 19th, and 26th from 10:00am-11:00am



Photo courtesy of Ben Wolfe

Turtle Central

Shopping here saves Sea Turtles

We are having a **big sale** on all coats, vests, jackets, and sweatshirts. 20% off during January. Search the store for many other marked down items. Look for a dot on the price tag and receive 25 – 50% off.

Your purchases help support the Bald Head Island Conservancy and their many programs. Shopping at Turtle Central saves turtles. I hope you notice the beautiful decorative addition to our garden. Recycled materials were used to create a beautiful garden railing. For information, please call Elyse Brown at 910-457-0917, or email elyse@bhic.org. Open daily 10am-4 pm. **Open New Year's Day.** Closed January 3 for inventory.

This spring find new tee shirt designs and a number of new beautiful items. As we gear up for the summer season, take advantage of inventory reduction sales during the spring.

Not on BHI this season? Buy the gift that makes a difference. Support the Bald Head Island Conservancy by shopping at Turtle Central Online, www.bhic.org/store

Thanks to all our customers for making 2012 so successful. It couldn't happen without our fabulous store volunteers. We appreciate every one of you and hope you will continue your support in 2013. We are always looking to add to our volunteer family. If you are interested please call Elyse at 910-457-0917 or elyse@bhic.org.

Search: BHI Conservancy

Please like us, share us and get your friends to like us and become friends. We are trying to expand our "reach" through social media.



Protecting our Forests,

Protecting our Deer

By Suzanne E. Dorsey, *Executive Director*

Consensus is the tool most necessary to bring a long term, objectively doable management plan for deer on Bald Head Island. So many people around the country are struggling to balance the need to protect forests, human safety, and social conditions like landscaping and disease with the health and well being of deer populations. On Bald Head the BHI Conservancy has recommended that the deer population be managed relative to the health of our globally imperiled maritime forest. The forest really is the anchor of our island. It can slowly build up the elevation and hold in old dunes. Without our forest we would quickly lose our main protection against over wash and storm damage. Overpopulated deer have hurt forests in North America. The BHI Conservancy contends that deer on BHI must be managed to protect our forests. We don't have an opinion on what type of management should be used, but we know that unless a consensus approach can be found, conservation will not succeed and our forest could be at risk.

Culling has been used to control deer on BHI since 2003. It is very effective in reducing the deer population. It is also very unpopular. Both with people who dislike the idea of armed sharpshooters ranging the island, and with the folks who despise the idea of killing a deer. The BHI Conservancy has been working with the community since 2004 to build a consensus approach of managing deer. Over the last couple of years the technology of deer birth control has made leaps, bringing down costs and bringing up the effectiveness of the drugs. Hard work behind the scenes with groups like the Citizens

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Conservancy staff measure accretion and erosion along these transects as well as on each of the sixteen South Beach groin tubes once per month throughout the year. Measurements are taken more often if storms threaten the coastline.

The dune monitoring program provides real time information for the Village, policy makers, policy regulators and island stakeholders. The information is made available via the Conservancy website, regular publications (Conservancy Corner, Conservator, Island Report) and an annual dune report submitted to the Village of BHI. Below is a summary of dune and beach change over the past year.

Row Boat Row and Turks Head Court Area - loss of 26 feet of vegetated dune over the year.

Northern portion of West Beach near the marina - loss of one foot of vegetated dune over the year.

Seagull Trail Area (recently developed 'scour' area) - loss of 31 feet since August, has stabilized over the past month.

'The Point' - overall losses of 60+ feet in some areas.

South Beach - average loss of 5 feet of vegetated dune over the year.

Captain Charlie's and Shoals Club - average loss of 25 feet of vegetated dune over the year.

North of Shoals Club to last house on East Beach - average annual loss of one foot.



Figure 1. Change in seaward line of vegetation along transect 6a located on ‘the point’. This figure depicts measurements taken from November 17, 2011 through October 29, 2012.

It has been three years since the last beach renourishment on BHI (a privately funded event) and as can be seen from the preceding numbers, our shoreline is in desperate need of sand. The US Army Corps of Engineers has awarded the dredging bid to Weeks Marine (Cranford, NJ). The contract includes three separate dredging and renourishment operations – Carolina Beach, Kure Beach and Bald Head Island. We expect dredging and renourishment operations to begin in our area by mid-January. In addition to receiving approximately 1.7 million cubic yards of sand on our beaches, five groins near ‘the point’ will be replaced.



Citizen Scientist, Poul Lindegaard, measuring dune loss

deer group, the Village of BHI, and individuals on all sides of the issue have resulted in a tenuous consensus to try to change from lethal culling to non-lethal birth control.

The first hurdle to overcome was getting permission to use birth control from the Wildlife Resource Commission (WRC), the state agency that “owns” the deer and has to permit any population control methods. WRC felt that if Bald Head could reasonably finance and implement a birth control management approach, they would work with us to allow Bald Head to be the first community in NC to try it. Since they work with so many other communities they knew how hard it would be for us to find an approach that would satisfy a majority of stakeholders.

Effectiveness of the birth control drugs, costs, and community support were the factors that the BHI Conservancy used to reach a compromise position within our community. The community has worked hard to come together through direct input, participation in community forums, and feedback on newsletters. The result is a plan that satisfies most of our community. Much debate centered around need for and timing of a cull. The current plan includes a cull to reduce the deer population by 20 does this January. Doing this brings down the overall costs of the program. It also increases the challenge of darting enough does early on. Culled populations are more skittish and therefore harder to hit with a dart gun. Darting deer differs from shooting in that you need to fire in a perpendicular angle at very close range.

The final approach will attempt to administer birth control to 15 does in the first year and 30 in the second. The costs are still being finalized but will come to approximately \$45,000 in the first year, reducing each year after that. There continue to be unknowns, like we aren’t positive that WRC will allow the BHI Conservancy to use their license to administer the anesthesia needed to inject the first dose of birth control. In addition to birth control, does will have blood samples taken, be weighed, measured, and tagged. Technology is improving rapidly allowing, for instance, remote

administration of the second dose of birth control. With multiple moving parts in this plan, the BHI Conservancy staff have developed models to improve our approach as technology and success change population levels.

Another compromise is funding. It must come, not from tax payers, but from a private fund administered by the BHI Conservancy. Donations to this “restricted” fund will only be used to implement the non-lethal deer management strategy. These donations continue to be a tax deductible contribution. The BHI Conservancy will train staff to administer the drug GonaCon. Each doe will need to receive two doses to become permanently sterile.

Assuming final approval from the WRC this January and a successful fundraising campaign we could begin administering birth control as early as fall 2013. In January we will have an additional public meeting to discuss costs and methods. Stay tuned for more information or call Patrick Amico, the BHI Conservancy’s Conservation Biologist at 910-338-0942 or amico@bhic.org.



Photo courtesy of Ben Wolfe



Pick up your
2013 BHI
Communications Directory
from
Turtle Central Gift Shop

Volunteers: the Foundation of the BHI Conservancy

By Kendyll Collins, *Environmental Educator/Outreach Coordinator, BHI Conservancy*

Unless someone like you cares a whole awful lot, nothing is going to get better. It's not. ~Dr. Seuss

On November 7th, 2013, the Bald Head Island Conservancy, BHIC, will celebrate a milestone birthday. Almost 30 years ago, the BHI Conservancy was created by a small group of island residents concerned for the future of Bald Head Island.

Those of you that have spent only a day, and those that spend their summers on the island can relate to their abiding attachment to this unique coastal destination. Over the past 29 years, the BHI Conservancy has grown in many ways including the expansion of our staff, internship program, and campus. As we gracefully age, we will be returning to the roots and foundation of our organization—our altruistic volunteers.

We are looking for volunteers at least 15 years of age to assist with many facets of our nonprofit organization. Shortly after the New Year, BHI Conservancy will host two volunteer open houses. Representatives from all departments will explain the opportunities available and the training required for specific tasks or programs. These open houses will help you explore the diverse roles within our community-based organization and help match you with your specific interests. Mark your calendars for January 19th and March 30th.

Are you interested in helping the BHI Conservancy for just a day? Need volunteer hours as a school requirement? Looking to stay busy during the chilly winter months? Please visit our website www.bhic.org, and fill out the volunteer form documenting your interests and availability. If you are specifically interested in volunteering for BHI Conservancy's Education Department, please contact Director of Education, Tracey Ritchie at tracey@bhic.org for more information. We are currently in need of volunteers at the Turtle Central gift shop, for the holiday season. Please contact Gift Shop Manager, Elyse Brown at elyse@bhic.org. Hope to see you at our informational volunteer open house!

Island Nature Tours



Join professional naturalists on a guided tour of the wildlife hotspots of Bald Head Island! Each tour includes transportation to, from, and around Bald Head Island, as well as a 2 hour guided tour which will focus on the best wildlife areas for the particular season you are visiting. Take the opportunity to see birds, mammals, reptiles, and other amazing wildlife by exploring our pristine beaches, maritime forest, and marshes. \$20 per participant for on island guests. \$50 per participant, includes ferry ticket and transportation on island.

- Groups of 2-16 people can be accommodated, with additional options available for larger groups.
 - Tours available year round
- Call 910-457-0089, ext.16 for availability.



photos by Donna Finley, Tom Hancock

Citizen Science on BHI: Year in Review and a Look Ahead to Next Year

By Patrick Amico, *Conservation Biologist, BHI Conservancy*

The BHI Conservancy realizes the importance of community involvement with the environment, recognizing the fact that true conservation is achieved through consensus. With citizen science, it's a win-win situation because the citizen is involved in a hands-on environmental experience, and the Conservancy gets a valuable extra set of hands to help. In the year 2013, the BHI Conservancy wants to expand its citizen science opportunities and strive to involve seasonal and year round citizens in conservation efforts as much as possible.



Trail Maintenance

In 2012, the BHI Conservancy and citizens of Bald Head Island benefitted greatly from volunteer efforts and hard work. In the spring, citizen scientists assisted in the completion of Stephen Tinsley's Eagle Scout project, which included the installation of steps and benches along the north woods trail in the maritime forest, as well as an interpretive brochure and numbering system that identifies important species and ecological aspects along the hike. If you haven't had a chance to check out the new additions to the trail, we encourage you to go for a hike. Citizen scientists donated sweat and time to help maintain the entire trail system in the Bald

Head Woods. Without their help pruning limbs, removing trip hazards, and cutting down "widow-makers", low hanging branches, the trail system would not be as beautiful or safe as it currently is. Thank-you to all who have helped to maintain our forest trails.



Turtle Trots

Citizen Scientists were instrumental in the success of the Conservancy's Turtle Trot campaign in 2012. These 5k family runs were a big hit this year, and with the help of the community, the BHI Conservancy was able to raise money to support our Sea Turtle Protection Program. The revenue generated from Turtle Trot races goes directly to funding Conservation efforts and the Sea Turtle Protection Program. With this funding, the BHI Conservancy can maintain its equipment vital to protect our important endangered sea turtles. The BHI Conservancy is expanding turtle trots to 15 in 2013. With such a large increase, volunteer participation will help tremendously.

Research Opportunities

In 2012, Citizen Scientists also participated in research programs such as dune measurements, deer population spotlight surveys, and the SEANET program. For those of you unfamiliar with the SEANET program, it is a study created by Tufts University in Massachusetts, where citizen scientists are assigned a portion of beachfront to walk two



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times a month looking for dead shore birds. When birds are found, participants take measurements and photos of the carcass, and fill out a data sheet with other environmental factors. Researchers at TUFTS University are collecting this data from volunteers at different beaches across the country, to determine trends regarding shorebird mortality. Your work will help us understand new ways to protect shorebirds.

Looking to 2013

For the year ahead, citizen scientists will have more opportunities for field research. Grants will help to implement a Blue Crab Monitoring Program designed by Anya Rushing, former BHI Conservancy intern. Blue Crab, Marsh Periwinkle Snails, and Smooth Chordgrass are part of an ecological triangle; if one is disturbed the balance is disrupted.



Thank you to our 2012 Conservation volunteers:

Al and Suzi Buzzard and extended family
Doug and Missy Anderson
Doug Ledgett and Donna Finley
John and Judy Knott
Bill and Ricki Grantmyre
Doug and Nancy Jenest
John Earle
Joe and Linda Elrod
Robin Scott and Lilah Foster
Beth and Bill Brencick
Bob and Kathy Ketels
Tamara Znak
Poul Lindegaard
Butch Farabow