



Coastal Waterbird Program

2007 A High Point for Plover Population

When piping plovers were listed as Threatened on the federal and MA Endangered Species Acts (ESA) in 1986, the species was at a low point, with only 550 pairs in the entire US Atlantic Coast population. The Massachusetts population hovered around 120-140 pairs through 1990. But 21 years later, we celebrate the highest population of piping plovers ever counted in the state (in recent history), approaching the entire US population estimate two decades ago, at about **550 pairs!**

It's tempting to sit back and say, "look at all we've accomplished!" When species come back from the brink, there is discussion about removing the protections that brought them to that point. And as piping plovers hover around the regional (New England) goal of 625 pairs, this idea is raised. However, other regions of the Atlantic Coast population are not as close to their goals, and perhaps most importantly, average productivity has to be above 1.5 fledglings per pair for at least five

years range-wide before delisting would be considered. Over the past ten years, productivity has only exceeded 1.5 once, and for many of those years it has been well below the level required just to maintain a stable population. Additionally, management plans are required

(continued on p. 2)



Piping plover adult and chick - Jim Fenton.

From the Director

- Becky Harris

I can now say I've lived through a full field season with CWP, and I know a bit better what to expect... and yet I'm also starting to learn that expecting the unexpected is an important job skill!



I have yet to get a plover to land on my head. Terns have come close, but this gray jay in the White Mountains was much more friendly (and fond of smoked gouda).

I certainly didn't expect to find myself on Revere Beach searching for piping plover chicks. But there I was on this heavily-used urban beach (in fact, the nation's first public bathing beach) where a pair of plovers nested for the first time in recorded history! Located in close proximity to the seawall, the pair's nest went unnoticed, until an observant birder, Nancy Blake, saw something she had never seen in many years of living by the sea in Winthrop.

Nancy recalled: *"Honestly, I hadn't been to Revere Beach in years, but I will be heading back. I was in touch with a friend of mine I hadn't seen in more than 20 years. We got together that afternoon for coffee in Winthrop and decided to take a ride to Revere Beach to sit on the wall to catch up, like when we were teenagers. (continued on p. 2)*

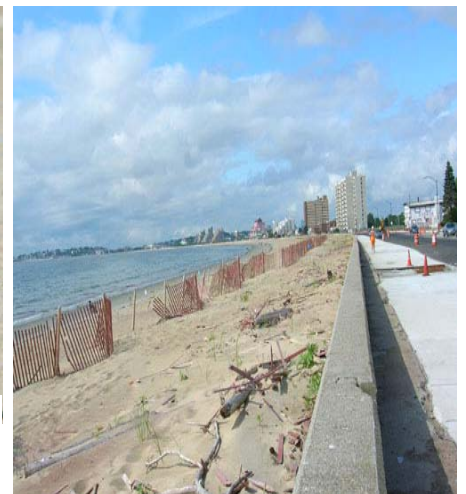
Piping Plovers Nest on Revere Beach!



Nancy Blake first found and photographed this adult and chick soon after the first chick hatched - Revere Beach, July 22, 2007.



Curious fledgling! One (possibly 2) chicks successfully fledged... here's one of the more mature 'teenagers' from Revere not long before departure. John Van de Graaff photo



The nest was only 8-10 feet from the sidewalk! (near middle of image) Dave Winchester photo

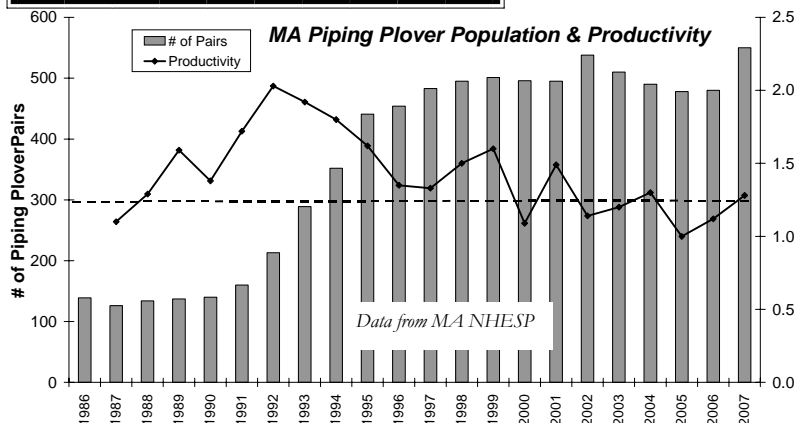
High Point for Plovers *(continued from page 1)*

Stats from the 2007 Field Season

Piping plover pairs protected: **261**
productivity: **1.15** fledglings/pair
American oystercatcher pairs protected: **25**
Least tern pairs: \geq **1,564** at **35** colonies
Common tern pairs: **132** at **4** colonies
Total sites monitored: **126, 88** daily
Total miles walked daily by **26** staff, **50**
volunteers: **170+**



Photo by Jim Fenton. See page 6 for info on his upcoming FlightPath photo exhibit at Plimoth Plantation.



on nesting beaches for the long-term to prevent numbers from falling to previous levels. This decline could happen quickly without the protections that CWP and others provide under the ESA/MESA.

Unfortunately, new threats emerge every day and the effects of climate change are looming on the horizon (e.g., sea level rise). We are beginning to see potential impacts of increased storm frequency, which, especially when combined with high spring tides can have an enormous impact on coastal birds. Washovers cause many lost first nest attempts, which can result in chicks on the beach later in the season at times when people (often with dogs, garbage, bonfires, etc.) also frequent the beaches.

We can pat ourselves on the back for a moment, knowing that we're protecting **half the state's population**, or about **14.5% of the entire population of Atlantic coast piping plovers** (currently estimated at about 1,800 pairs). But it's a population still so low that few other threatened species compare. To put their precarious position in perspective, bald eagles were recently removed from the Endangered Species List, with a population approaching 10,000 pairs; bald eagles were listed on the ESA at a little over 400 pairs. Recovery is much more than a number — nesting piping plovers require an enormous amount of attention, and by protecting them, we are ensuring that a healthy coastal ecosystem persists for all species! — *B. Harris*

From the Director (Piping Plovers in Revere?) *(cont. from p. 1)*

CWP was featured in The NY Times!
November 27, 2007

*She pulled over (randomly), we got out, sat down, looked behind us, and there they were! I had my camera with me for some reason and that was how it all started. Amazing what can come back after so many years - friendships **and** piping plovers.*

As others started to find out about the new residents of Revere Beach, the response was overwhelmingly positive. Shepherding the chicks through to fledging took a force of quickly-assembled, dedicated volunteers, guided by the creative and committed Susannah Corona, a curator at the New England Aquarium. Susannah oversees an exhibit of native shorebirds that includes piping plovers, so she saw an educational opportunity that extended beyond the aquarium's walls. As Laurretta Woods, volunteer plover monitor from Mass Audubon put it, "This has just been great. I'm completely enjoying it and can't wait to see these guys fly. There's something big and prophetic and kind of grand about these little guys surviving against all the odds." And fly they did... at least one of the two chicks that hatched was confirmed as fledged. One chick was last seen at 29 days old (not yet flying); one was observed flying at 36-37 days old. According to state and federal guidelines, piping plover chicks are considered "fledged" at 25 days or when they can fly at least 50 feet.

There are so many risks to chicks before they can fly (including getting run over when they nest in close proximity to a road!), that witnessing actual flight is the moment we can breathe a sigh of relief and consider the breeding attempt successful. High disturbance levels can mean chicks aren't able to feed constantly, and it takes them days, even weeks longer than normal to develop to the point of being capable of flight.

Susannah and the other volunteers accumulated many stories from their encounters with beach-goers. From the uninterested to the uninformed, almost everyone perked up a little, understanding the reasons for protection when they saw the small cotton balls of life for themselves. The chicks on Revere Beach appeared to acclimate to people, and provided a great viewing opportunity as they went about their constant quest for food. Susannah remembers an encounter with one young boy who had just moved to the U.S. from El Salvador. Barely able to speak English, and having difficulty adjusting to his new life here, the boy's face lit up when the plover chicks scurried about in front of him. Susannah recalled, "He was so thrilled, he started laughing and smiling. It was one of the best things that's happened to him since he got here."

The successful nesting on Revere Beach is a testament not only to the efforts of the volunteers who watched over these birds, and educated unsuspecting beach-goers. It's also evidence that the decades of hard work by many dedicated biologists and volunteers have brought the Massachusetts piping plover population to the point where nesting on Revere Beach is possible. One egg, one chick, one fledgling at a time. And when they beat the odds, it makes all the long days and unexpected challenges worth it. — *Becky Harris*

Many thanks go to all of the volunteers who pulled together quickly to spend countless hours on Revere Beach.



Volunteer Efforts on Ellisville Beach



Members of **Friends of Ellisville Marsh, Inc.** with a new educational sign they designed and donated. More info on the Friends at: www.ellisvillemarsh.org



Ellisville Beach, in Plymouth is partially privately-owned and includes Wildlands Trust Shifting Lots Beach and Ellisville State Park to the north. For the first time in 2007, a crew of dedicated, trained volunteers provided much of the piping plover monitoring at this site. Although plagued by suspected crow predation, the 5 pairs of plovers that nested in the Ellisville complex were well cared for and produced 2 hard-earned fledglings.

Bobbi Martino ~ For a person who can occasionally put the toothpaste on the wrong side of the brush when not wearing her glasses, learning to “read the sand” this past summer was an exciting accomplishment. What came along with it – the amusement of the “plover strut” (courtship) tracks; the excitement of the running paths leading to new scrapes; the terror of the crow prints; the disgust over the dog/human tracks and the absolute joy of the successful fledging – was a delightful surprise. My mood on a picture perfect summer’s day could be completely controlled by two tiny little feathered bodies, and whether their family had survived the night.

Eric Cody ~ Finding these nests, amazingly well concealed, often right in the middle of the beach, reminds me of the children’s book, “Where’s Waldo.” Your eye becomes so trained to look for a small but recognizable object deceptively placed amidst a myriad of identical-looking materials. A small depression in the sand. A few stones or broken shells placed in a ring. Converging tracks. A bird running away, feigning a broken wing. It’s great sport once you get the knack. But you learn there’s a lot more to it.

You cannot help but become a surrogate parent, worrying when you can’t quickly locate your charges on the beach after a storm. You give individual plovers whimsical names that reflect their personalities and idiosyncrasies. It definitely grows on you. I think everyone ought to have to do this for a summer, like spending time in the Peace Corps to learn how we should conduct ourselves in the world. With plovers, it’s *their* world we need to understand.

A good part of the summer adventure turned out to involve explaining all of this to beachgoers who rail against the fenced-off nesting areas. Most don’t even know the birds are there, much less nests or chicks. But it turns out to be easier for a local to gain the cooperation of his or her neighbors than it could ever be for a Mass Audubon staffer, no matter how diplomatic.

Will I do it again? You bet. By early April I’ll be down on the beach watching for the birds to come back. These plovers got more than our protection last summer. They earned our respect. I promised them I’d be back too.

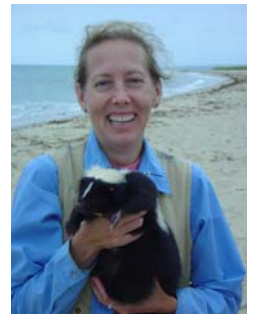
The Skunk Whisperer — Luanne Johnson

for other coastal residents (including beach-nesting birds, whose eggs make tasty snacks). We actually know very little about their impact on piping plover chicks (without intensive research it is very difficult to determine what happens to chicks when they disappear). Until Luanne Johnson, PhD candidate at Antioch New England, started her research, almost all the information on skunk ecology came from habitats very different from the Atlantic coastal beaches like those of Martha’s Vineyard, where she does her research.

In order to figure out what skunks living in coastal areas are doing, Luanne has become a ‘skunk whisperer’ of sorts, becoming nocturnal, spending long hours capturing skunks (peanut butter, tuna, cat food, donuts—yum), and radio-collaring and pit-tagging them. Radio-tracking allows Luanne to follow skunks (literally) as they go about their nocturnal travels, in order to understand home ranges, food sources, den and retreat characteristics and population sizes. After 4 seasons, over 150 skunks, 3 times sprayed, and many, many late nights, Luanne has some interesting findings. One of the most surprising is that she found no evidence that skunks were eating plover chicks (occasional tern chick eating was discovered). Also, although foraging on beaches was very common, most effort was devoted to the dune edge and wrack line (both have lots of invertebrates), NOT to the expanse of beach where plovers often (but not always) nest. Unless of course, there was a reason to venture out into the open beach... which, if there had been human activity there the day before, there very often was. Skunks would regularly go right to the picnic remnants and places where people had spent time on the beach, and in doing so, would sometimes come upon plover nests, happily consuming any eggs in their paths. The draw of human refuse is so powerful in fact, that one skunk, ‘Phoebe’ would regularly travel 3.5 mile round-trip to forage at a popular beach picnic spot, returning each night to her den to feed her young kits.

Generalist species like skunks thrive when human activities provide supplemental food and shelter on and away from the beach. Predators do not control their populations; they are primarily limited by resources and diseases (distemper, rabies, and parasites). There is a lot you can do to limit skunk populations and beach activity: remove buckets, overturned boats and other sources of shelter on and near beaches, keep home garbage lids tightly secured, use a seed catcher below and wire fence around the base of your bird feeder, remove brush piles and clean under elevated wood piles, block access to areas under foundations, decks, and porches, don’t leave garbage (including fish carcasses) at the beach, and if trash cans are over-flowing alert the beach manager.

Skunks are a natural part of many Atlantic Coast beaches, but too many skunks can cause problems

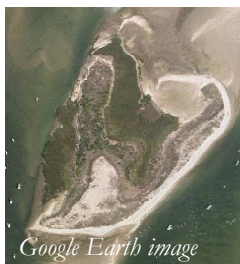


Luanne and Babs

Chatham High School Adopts Tern Island

-Leah Dower, Wellfleet Bay Wildlife Sanctuary

Beginning this spring, the Marine Biology class at Chatham High School will be adopting Tern Island, a historical nesting site for 3 species of tern that currently supports least terns (133 pairs in 2007) and piping plovers. As with other types of adoptions, the students will have to spend time with and give a lot of TLC to their island! After learning about the biological and historical background of Tern Island, the students will boat out to the island for two days in March. They will get a chance to put into practice what they have learned about habitat restoration for threatened species, and will spend the bulk of these days thinning beach grass to encourage the growth of a successful least tern colony on the island.



Google Earth image Tern Island 2005

The Chatham students will expand their involvement with Tern Island as they visit in late May to participate in a breeding bird inventory (we hope to see willets, least terns, piping plovers, song sparrows, and maybe a surprise or two!). A group of students will kayak out to the island in June to do some follow-up work with both the breeding birds.

Finally in the fall, students will return to their adopted island twice more. This time they will be asked to take what they have learned in the classroom about native, non-native, and invasive plant species and put it to work in the field. They will conduct a plant species inventory and remove invasive Phragmites and Oriental Bittersweet. Not only will this project help restore critical habitat for breeding birds, it will also provide a hands-on educational opportunity to local students, fostering their appreciation of local species and threatened habitats we're in danger of losing.

Cats & Rats Devastate Least Terns on Nantucket

- Ellen Jedrey, Asst. Director, CWP
Ernie Steinauer, Director, Lost Farm Wildlife Sanctuary

2007 marked an extraordinary year for least terns breeding on Nantucket beaches monitored by Mass Audubon, both in terms of high nest numbers and unfortunately, high predation rates. A total of 3 colonies were monitored, one on our property at Sesachacha Pond, and 2 further north on private property. Unfortunately, many nests were destroyed and at least 1 adult was killed by cats in the northern colonies. The cats were likely feral, but both feral and domestic cats predate the eggs, chicks and adults of coastal nesting birds.



Chelsea Scudder photo

The adult least terns abandoned the northern sites but re-nested near the inlet at Sesachacha Pond, where 50 additional pairs were already nesting. Staff and volunteers attempted to exclude cats from the Sesachacha site using electric fencing purchased through the MA Landowner Incentive Program. The fence was initially successful and the colony grew to over 180 pairs. But 2½ weeks later a cat breached the fence and many eggs and chicks were lost. Rats—small enough to fit through the fencing—soon moved in from adjacent uplands and wiped out the remaining nests. Only 1-4 chicks fledged from the hundreds of eggs laid. A great deal of staff and volunteer time, effort, and resources went into protecting these colonies with virtually all lost

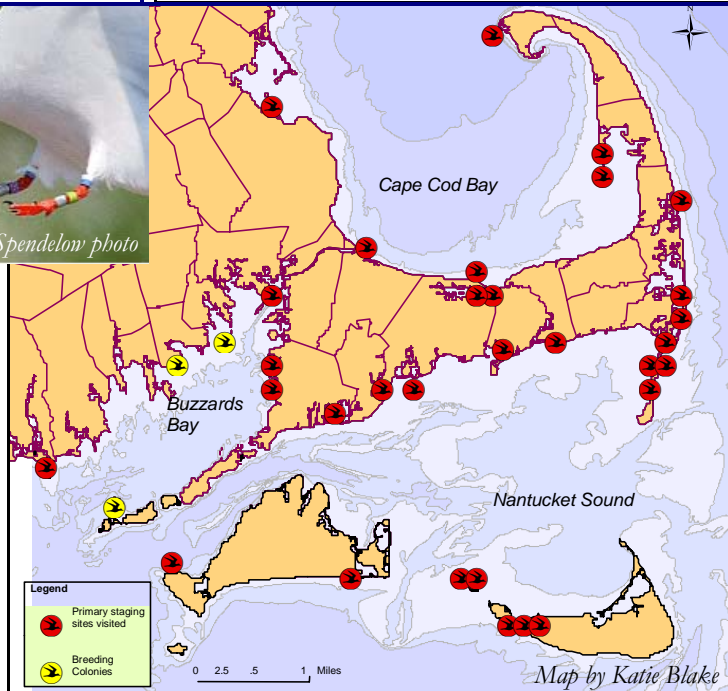
(continued on facing page, Islands)

Tern, Tern, Tern

Roseate Tern Staging Thanks to a three year grant from the Island Foundation, CWP launched into our first year of tern staging counts and color-band resighting efforts. Over 2,000 adult roseate terns are now color-banded, thanks to extensive efforts of Jeff Spendelow (US Geological Survey biologist) on the main breeding colonies in Buzzards Bay over the past several years. About 45% of the entire north American population breeds in Buzzards Bay, and likely close to 90% of the population "stages" on sites like South Beach, Chatham before embarking on their long migration to South America. CWP staff and collaborators spent over 750 hours at 30+ sites identifying individual terns, assessing movements between sites, and documenting site use by both common and roseate terns. Collaborators include Antioch New England (see below), USGS, USFWS, Nantucket Conservation Foundation, Town of Nantucket, The Trustees of Reservations, and College of Staten Island. Stay tuned for results next year!





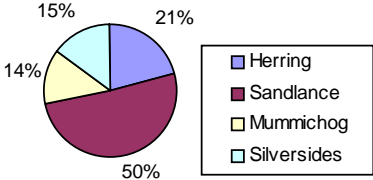
Jeff Spendelow photo



Map by Katie Blake

Katie Blake of Antioch New England is focusing her Master's thesis on tern post-breeding staging: "What excites me most about this research is its inherent need for large-scale involvement and collaboration. Observers from various projects across Cape Cod and the Islands, ranging from beginners to published biologists, contributed resighting and count data to this study. It is only through collaboration of many individuals that large-scale ecological questions can be answered. With that in mind, this research will undoubtedly have conservation and management implications for protecting sites that provide pre-migratory habitat for an endangered species."

Local Highlights ~ 2007 Field Season ~ Sanctuary Connections

South Shore	Buzzards Bay	Outer Cape	Islands								
<p>North River Sanctuary works closely with Duxbury Beach Reservation, where spring storms in '07 changed the profile of the beach dramatically, less habitat was available and there was significant nest loss due to high tides. About 71 pairs of least terns fledged 18 chicks. 11 pairs of piping plovers fledged 13 chicks, and a surprise success story occurred on Saquish (at the tip) - the first time we monitored this site - 1 pair fledged 2 chicks.</p> <p>Third Cliff in Scituate benefited from increased police presence, but dogs and people inside the fencing were consistent problems and fencing was burned. 5 pairs of plovers fledged 4 chicks; 48 pairs of least terns were unsuccessful, experiencing what was most likely heavy coyote predation on chicks.</p> <p>A new least tern colony was discovered late in the season in North Scituate, but with no nesting success.</p>	<p>At Allens Pond Sanctuary (Barney's Joy and Little Beach) the least tern colony was surrounded by electric fencing again. Storms and erosion caused some problems, but 142 pairs nested</p>  <p><i>Lauren Miller photo</i></p> <p>fairly successfully, with a high count of 41 fledglings. 20 pairs of piping plovers fledged 24 chicks on 4 Buzzards Bay beaches CWP monitors—good productivity—1.2 fledglings/pair. One American oystercatcher pair nested first on Barney's Joy beach and then on Timmy's Rock (above, where 11 common terns also nested) but wasn't successful.</p> <p>Many thanks go to all Allens Pond volunteers, especially intern Patrick Cheney from UMass Dartmouth who spent many hours helping CWP.</p>  <p><i>John Van de Graaff photo</i></p>	<p>CWP volunteers and staff based at Wellfleet Bay Wildlife Sanctuary monitored 25 sites this year where 27 pairs of piping plovers produced 55 fledglings—1.96 fledglings/pair!</p> <p>Corn Hill Beach in Truro was the largest least tern nesting site monitored this year and the first town-owned beach where protective electric fencing was used. 195 pairs produced at least 93 fledglings! Piping plovers were also very successful, with 4 pairs producing 9 fledglings.</p> <p>Ridgevale Beach in Chatham is a popular site where a least tern colony of 41 pairs produced an estimated 26 fledglings (and a pair of plovers fledged 3!). The least tern colony was well-acclimated to human activity so we were able to conduct tern feeding studies on the open beach without a blind, providing an opportunity to educate beachgoers as well.</p> <div data-bbox="776 999 1146 1209"> <p>% Fish Delivered</p>  <table border="1"> <tr> <td>■ Herring</td> <td>21%</td> </tr> <tr> <td>■ Sandlance</td> <td>50%</td> </tr> <tr> <td>■ Mummichog</td> <td>14%</td> </tr> <tr> <td>■ Silversides</td> <td>15%</td> </tr> </table> </div> <p>South Beach in Chatham remained the largest piping plover nesting site in the state with 50 pairs fledging 42 chicks. 5 pairs of oystercatchers nested, producing 1 fledgling.</p>	■ Herring	21%	■ Sandlance	50%	■ Mummichog	14%	■ Silversides	15%	<p><i>(cont. from page 4-Nantucket Cats)</i> due to cat and rat predation. We will continue our efforts to protect least terns and other coastal nesting birds on Mass Audubon property on Nantucket, but it will be a challenge. In 2008 we will proactively erect electric and additional small mesh fencing around the nesting site with the aim of excluding cats and rats. Please help us by letting your friends, family and neighbors know that both domestic and feral cats pose a very real danger to threatened and endangered coastal birds, and encourage them to keep their cats indoors. See www.abcbirds.org for more info on 'Cats Indoors!'</p> <p>On Martha's Vineyard CWP staff protected and monitored 25 pairs of piping plovers, about 340 pairs of least terns, 74 pairs of common terns, and 14 pairs of American oystercatchers on 17 sites (24 total censused). Plover fledging success was low at 0.92 chicks/pair, but oystercatchers had a good year, with 1 fledgling/pair – almost double the average rate for the species! We're happy to have Islands Coordinator Emily Reddington returning, and she will be offering educational programs in coordination with Felix Neck Wildlife Sanctuary in 2008.</p>
■ Herring	21%										
■ Sandlance	50%										
■ Mummichog	14%										
■ Silversides	15%										

Many thanks to all donors, supporters and volunteers, foundations and government agencies for their financial support! Unfortunately we don't have space to list all of our individual donors, but they are the backbone of the program — there were **251** individual contributions to the CWP in the last calendar year! Those listed below provided funding of \$1000 or more in 2007.

- | | |
|--|-------------------------------------|
| Mr Richard and Ms Helen Arthur | Mr Eric and Ms Christine Cody |
| Mr G.P. Edmonds Jr. | Mr David Officer and Ms Marcia Wade |
| Ms Inghilt Traenkle | A.V. Stout Fund |
| The Edey Foundation | Dukes County |
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| US Air Force, Hanscom AFB | William Hart Realty Co |
| MA Dept. of Conservation & Recreation | |
| MA Landowner Incentive Program | |
| MA Natural Heritage & Endangered Species Program | |

Many thanks to the towns we work with for cooperation and/or funding

Special thanks for reduced cost optical equipment:
Wild Bird Centers / Alpen Optics & Eagle Optics



Special thanks to donors of field staff housing:
Eleanor Winslow & Carolyn Crowell

Special thanks for Tern Island camera set-up:
Peter Karlson at www.neueon.com

Coastal Waterbird Program
PO Box 275
Cummaquid, MA 02637

FORWARDING SERVICE REQUESTED

American Oystercatcher Update: A Plea for Color Band Reporting!

Sean Murphy, a PhD student at College of Staten Island, has been studying American oystercatchers (AMOY) on the Islands – so far he has color-banded 145 adults and juveniles in 3 years. As concern for the population has grown, banding efforts have taken off along the Atlantic coast, and each state's birds are banded with a different color (MA is yellow). This year was a high point for AMOY in MA, with 200 breeding pairs. CWP is ramping up our efforts to resight post-breeding birds on all beaches. We will be hiring an AMOY Technician who will work on assessing productivity, resighting banded birds, and hopefully banding on both South Beach & Monomoy this season. This is a coordinated effort with USFWS, and we also thank Manomet Center for Conservation Sciences for funding. To help us get a better idea of population size and movements PLEASE REPORT BANDED BIRDS, and for more info visit: <http://www.ncsu.edu/project/grsmgjs/AMOY/Research.htm>



Upcoming Events!

SAVE THE DATE: Folk for Feathers Festival!



*Featuring
Boston's finest folk
stars*

September 5th 6:00 pm
Sunset concert on the lawn
at Long Pasture Wildlife
Sanctuary, Cummaquid

HOT WINGS Jazz for Plovers

2nd annual!
Saturday, April 26, 2008
At Wellfleet Bay WS
Tickets \$20 to benefit CWP & WEWS
Advance tickets only: (508) 349-2615
6:00 Jazz combo, wine and cheese
7:00 MIT Festival Jazz Ensemble



Bird-a-thon!

fun and funding for the birds - May 16, 17th
Join us at the end for a cookout and concert
at Long Pasture (508) 362-7475 x9351

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FlightPath: Plymouth Beach

An exhibition of bird
photography by Jim Fenton

May 03, 2008
Plimoth Plantation