

The Coastal Waterbird Program Celebrates its 20th Year

2007 marks the twentieth anniversary of the Coastal Waterbird Program, but did you know that Mass Audubon actually has *its* roots in coastal waterbird protection? The decline of colonial waterbirds such as egrets and great blue herons (our original logo) and terns (our current logo) resulted mainly from market gunning and the millinery trade—the fashion of the day included feathers, entire birds and nests on ladies' hats. Our founding mothers, **Harriet He-menway** and **Minna Hall**, formed the organization in 1896 in response to dramatic declines in coastal birds. In fact, the very first paid employees of Mass Audubon were tern wardens, like **George Mackay**, who was armed and defended the nesting terns of Muskeget and Penikese Islands from market gunners! Conservation efforts on the part of many groups like Mass Audubon resulted in the first legislation to protect birds: the Lacey Act of 1900 and the Migratory Bird Treaty Act of 1918. From the 1920s through the 1950s, tern populations increased in the state, and were carefully monitored by Mass Audubon scientists - particularly **Oliver Austin** of Wellfleet. Mass Audubon continued to post and monitor the large tern colonies in Plymouth, Cape Cod, and various islands with the help of volunteers.

In the 1960s, however, tern numbers began to show serious declines. As human activities increased on and around beaches (including coastal and offshore garbage dumping), populations of predators, including gulls, rats and small mammals began to have significant effects on beach nesting birds. **Priscilla and Wallace Bailey** of the Wellfleet Bay Wildlife Sanctuary were instrumental in the early efforts to protect terns, particularly on MAS properties like Tern Island. In 1963 Wallace Bailey created the **Tern Project**, upgrading its voluntary posting of important Massachusetts tern colonies to a more intensive and thorough protection program carried out by one or two seasonal tern wardens. Mass Audubon ornithologists **Drs. Bill Drury and Ian Nisbet** conducted critical research that is still widely cited today, while **Dick Forster** oversaw seasonal wardens who posted colony sites. Despite these and other conservation efforts, piping plovers, least terns and roseate terns were added to the federal and state Threatened and Endangered Species Lists by the late 1980s. The declines were precipitated not only by predation, but by the more subtle problems of habitat loss and degradation through the construction of homes, hotels, and parking lots, as well as armoring of the shorefront with jetties and revetments. The listing of these species, particularly the piping plover, catalyzed the creation of the Coastal Waterbird Program (CWP) in 1987, an evolution of the seasonal Tern Program.

Founding Director, **Scott Hecker**, worked year round to protect coastal birds and hired up to 30 seasonal staff every year. At that point, the MA population of piping plovers was at a low of 126 pairs. Field staff worked with volunteers to post coastal



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Piping plover family at Allens Pond Wildlife Sanctuary, photos by John van de Graaff.

From the Director

Harris joined the CWP as Director mid-field season 2006.



Given the exalted history of coastal waterbird protection at Mass Audubon, it was with a feeling of enormous honor and responsibility that I took on the position of Director of the Coastal Waterbird Program last summer. I grew up in Belmont, MA, bobbing along in a baby carrier on my dad's back as my parents bird-watched in Habitat Sanctuary and Mt. Auburn Cemetery. I had always hoped I would find a way have a career that would allow me to immerse myself in bird conservation. Spending several summers off the coast of Maine on seabird nesting islands with National Audubon's Seabird Restoration Project hooked me permanently. So it is a dream (and a challenge!) to take on the multifaceted threats to beach-nesting birds in Massachusetts and beyond. *(continued on page 6)*

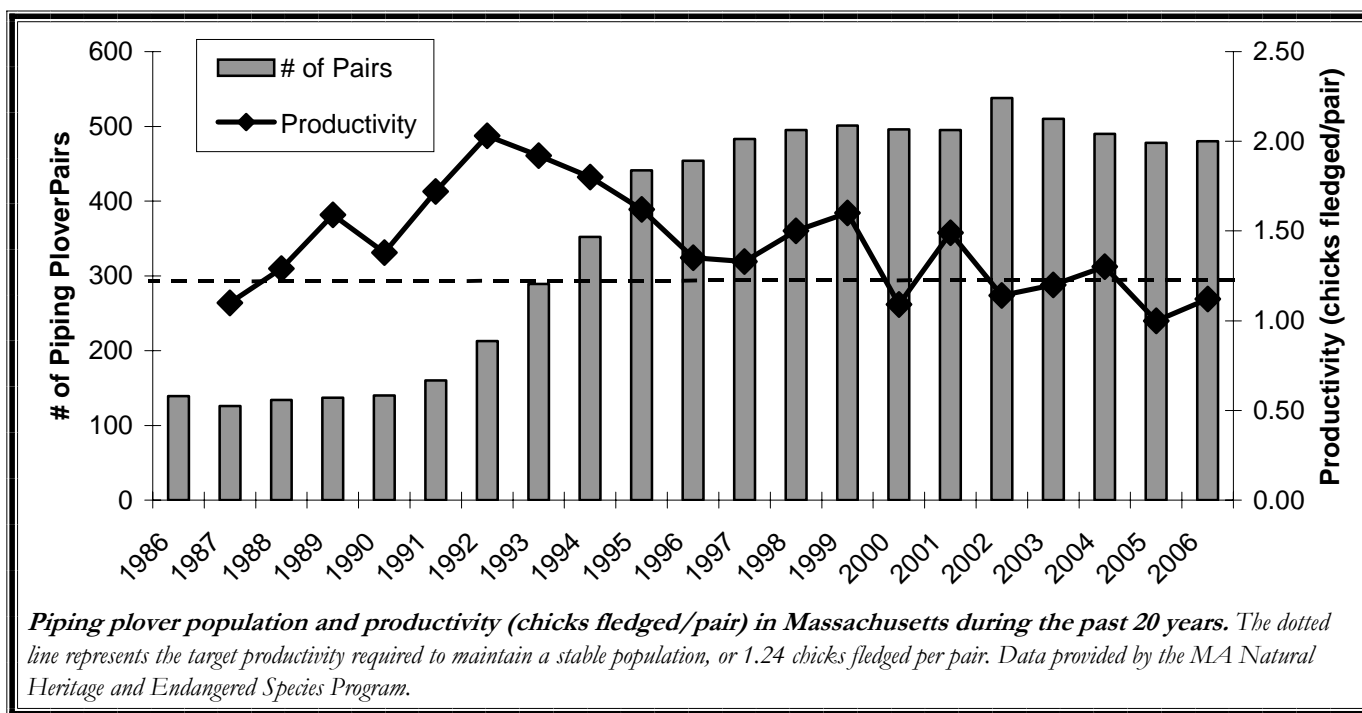
CWP Twentieth Anniversary *(continued from page 1)*



Piping plover adult and chick by John van de Graaff.

bird breeding areas, and to collect critical data regarding the birds' successes and failures. Each year, Scott had to find volunteer housing and funding for field staff and management tools, coordinate staff and volunteers, advocate for dramatic changes in the way beaches were managed, and spread the message of conservation spread through educational programming. After 17 years of dedication and hard work, the CWP had grown into an international model for coastal bird conservation, and **Andrea Jones** took over as Director. By then, a four-fold increase in the state population of piping plovers had resulted from the CWP's work. In 2000, southeastern region sanctuaries were integrated into CWP operation, with responsibility for local sites and community involvement.

The program is now well-established in the community, but the urgency for species that rely on our protection measures has not diminished. We keep the mission of coastal bird protection and conservation at the forefront of all that we do, while expanding into new research frontiers to ensure we are employing the best tools for the long-term. During the summer of 2006 the torch was handed over to the CWP's new Director, **Dr. Becky Harris**. Today, in its 20th year, we are poised to take the Coastal Waterbird Program in new and exciting directions for many years to come. — *Ellen Jedrey, Asst. Director CWP Contact: ejedrey@massaudubon.org 508-362-7475 x9352*



Good News From the Field—Tyler Maikath, returning CWP staff

I have worked as a field assistant for Mass Audubon's Coastal Waterbird Program for the past 2 field seasons at Popponesset Spit in Mashpee and Black Beach in Falmouth. For Popponesset Spit, 2004 and 2005 had been dismal years for piping plovers – no chicks hatched. In 2006, I joined the CWP staff with high hopes for the field season. Although the birds had their share of difficulties (unleashed dogs, red foxes), 2006 went much better for the plovers than the previous years!

Of the 3 piping plover pairs at Popponesset, we were able to exclose 2 nests, and both pairs fledged chicks. Use of exclosures requires extreme caution and daily monitoring at any site; exclosures can lead to plover mortality if they are set up in unsuitable conditions, and not all nests can be exclosed. Due to the addition of dredge spoils to the Spit during the previous winter, a substantially large area of nesting habitat was created, in which we were able to install exclosures for the first time in a number of years at the Spit. Due to successful management and increased habitat, the 3 piping plover pairs were able to fledge 4 chicks! I feel like we built bridges with the public on the Spit last year, and more people realized how important a united conservation effort is for the *(continued on opposite page)*



Popponesset Spit educational sign installation in 2005—thanks to Save Popponesset Bay (A. Jones)

CWP Volunteers of Wellfleet Bay Wildlife Sanctuary

More than 50 volunteers join CWP each year to install fencing, clean beaches, and monitor nesting birds throughout the season. Maryann Zbel at Wellfleet Bay WS coordinates many long-term, dedicated volunteers on the outer Cape — here are some of their testimonials:

Judy Brainerd ~

“There is nothing quite like the thrill of finding a new nest, especially when you’ve spent many hours wondering what those little guys are up to and where they might nest. The combination of taking long walks on a beach, usually in decent weather, while doing something worthwhile for the plovers makes it about the best volunteer job I can imagine.”

Margie Gibbs ~

“I lost my keys one day while monitoring plovers on Sunken Meadow in Eastham. I had spent a long time out on the point that day and was sure there was a nest there. I just couldn’t find it. So after many hours in the hot sun I trudged back to my car only to discover that I didn’t have the car keys. I must have dropped them back at the point! I started the long, hot walk back to find them, hoping that the sand hadn’t already swallowed them. But there they were, right where I had been sitting to observe the plovers. I bent to pick them up, looked up, and found myself staring right at a plover nest.”

John Riehl ~ “Why do it? Of course, we are all committed to the environment and natural resource protection. But beyond that, the CWP creates an opportunity to be out beside Wellfleet Harbor in a quiet time, to enjoy it as a wilderness, to see each new spring season, its renewal and (hopefully) rebirth. Every year I have the opportunity to point out to beach walkers I encounter, a piping plover nest or chicks right there on the beach near them - people who would otherwise be totally unaware of their presence!”

Jean Torppey ~ “In a few words: their environment, their soft beauty and strength, the excitement, and the moment of joy when I know the chicks have made it and take flight.”

Carol Lindemann ~ “Three years ago I’d never even seen a piping plover, but after going out to the beach several times with an experienced monitor I watched “my” first pair nest. Then, after a storm took out the first nest, they nested again and successfully raised four chicks. I was totally awed by the dedication of the pair as they protected their young. After I understood the adversity these amazing birds face in nesting successfully, how could I not want to do whatever I could to help protect them? And it’s not all about solitary hours on the beach monitoring the birds -- though that’s certainly a plus! There are opportunities to help erect symbolic fencing and exclosures with staff and other volunteers. Every year it’s a new set of circumstances on the beach so I can’t see how I’ll ever get tired of doing my little bit to help.”



Lt. Island piping plover volunteer monitor, Betsy Richards - Maryann Zbel photo

Piping Plover Success on Small Beaches

(continued from preceding page)

survival of piping plovers and coastal ecosystems. I would especially like to thank everyone who supported our efforts at Popponeset in 2006 and helped get the word out to others about piping plover conservation!

Black Beach, a small site just west of Sippewissett Marsh in West Falmouth, was a real surprise for the 2006 season. This year, every chick that hatched at Black Beach—6 in total—managed to reach fledging age! I think this says wonderful things about the parenting skills of the two piping plover pairs at Black Beach! We will be watching this beach closely in the future for nesting activity.



Piping plover nest seen through bird netting on top of an exclosure - Ellen Jedrey photos

While the news may not have been good at some of the larger beaches in Massachusetts for piping plover recruitment in 2006, the successes at small beaches like Popponeset and Black Beach point to the cumulative importance of every site for the overall Atlantic Coast Population of piping plovers. —Tyler Maikath



Stats from the Field: 20th Anniversary Season

- Piping plover pairs protected: **225**
- Piping plover pairs per linear mile on CWP beaches: **3.75**
- American oystercatcher pairs protected: **23**
- Least tern pairs: **1,638** at **30** colonies
- Common tern pairs: **377** at **4** colonies
- Total sites monitored: **107**
- Total sites monitored daily: **93**
- Total miles walked daily by **26** staff and **50** volunteers: **120+**

Protection of...



...PRICELESS!

CWP Education Program—Katherine Beauchamp, AmeriCorps Cape Cod



At AmeriCorps Cape Cod's MLK Day event kids created beach signs for local beaches. AmeriCorps photo.



Least tern decoy and chick.



In October 2006, the CWP welcomed me as their first AmeriCorps Cape Cod member to assist in the expansion of the CWP educational curriculum. AmeriCorps Cape Cod is a fulltime residential service program whose members spend almost a year working fulltime on hands-on service and conservation-related projects with Cape Cod towns, government agencies, land trusts, and other established disaster and environmental-related organizations like the Mass Audubon. I was born and raised in Douglas, MA, but spent a large portion of my childhood on the Cape where my family would fish almost every weekend. I graduated from the University of Connecticut with a B.A. in Coastal Studies.

The main goal of my placement with the CWP is to create and expand a coastal waterbird conservation curriculum that will be offered to surrounding Cape Cod schools. I have put together a variety of activities that students can participate in that will provide a hands-on learning experience to demonstrate the behavior and life of coastal birds. Several programs (coordinated by teacher Audrey McPartland) are planned for the Barnstable Horace Mann Charter School, including assemblies on March 27th for about 500 students and individual classroom and field activities including the piping plover survival game, tern shelter construction, and beach sign design. This will be a great opportunity for the CWP to reach out to the next generation of Cape Cod citizens, and hopefully more local schools can participate in the program next year. It expands upon CWP's current classroom and field activities with Osterville Elementary School and Chatham Middle School. With Wellfleet Bay WS, art teacher Joan Roberts involved children from every class in painting tern decoys that were used to attract and restore a least tern colony to Tern Island (like the one pictured below)! This year Wellfleet Bay WS is working with Jeanne Thomas' class of first graders at Truro Central School to do a similar adopt-a-beach program, painting least tern decoys that will populate Corn Hill Beach.



On Martin Luther King Jr. Day, we held an arts festival dedicated to teaching children about the importance of community service through different artistic media. The CWP participated in the "Helping Build Community through Art" Festival with a beach sign design booth. Over 80 children of all ages demonstrated their artistic abilities, creating signs that will be posted along the Cape's shores to warn people of nesting rare coastal waterbirds.

I am looking forward to the rest of my time here with the CWP at Long Pasture. It has been such a privilege to work with Becky and Ellen over the past few months. I could not have asked for a better individual placement, and hope my contributions will interest children about the local wildlife and habitats of the Cape.

Tern Restoration and Beyond

Tern Island, Chatham-Wellfleet Bay WS site

With funding from the MA Landowners Incentive Program, we successfully restored a least tern colony to Tern Island, Chatham, after decades of no tern activity on this historical nesting site. Dredge material created new habitat for terns who arrived several years ago—in 2006, the colony was up to 80 pairs, and was encouraged to return in larger numbers by social attraction techniques (decoys and sound system broadcasting tern calls to reassure passing birds that it's a great place to settle!). The colony was among the most productive in the state, and was enclosed entirely with electric fencing that protected the colony from mammalian predation. This spring we are hand-pulling experimental areas of beach grass to further open up some habitat and potentially restore common terns to the site.

Thanks to funding from the Charles Blake Fund, Davis Conservation Foundation, the AV Stout Fund, and a vital long-term 3-yr grant from the Island Foundation, we will be expanding our tern chick provisioning study to at least 3 sites this season, including Tern Island. We are collaborating with partners throughout the Gulf of Maine on an existing long-term tern feeding






John van de Graaff photo

study that seeks to understand the effects of fisheries changes and climate change on tern diet and productivity.

Preliminary foraging study results

In 2006, Brant Jones, a graduate student from Antioch New England, recorded prey deliveries to both adults (courtship feedings) and chicks in the colony on Sampsons Island. The majority of feedings were sand lance or lance-type (at least 70%), with some herring and hake deliveries and a few warm water species late in the season.

Local Highlights ~ 2006 Field Season ~ Sanctuary Connections

South Shore	Buzzards Bay	Outer Cape	Islands
<p>South Shore Sanctuaries oversee beaches in that fared pretty well this summer, with above average productivity at Duxbury Beach (20 fledglings produced by 15 pairs of piping plovers) and about 160 pairs of least terns that produced at least 22 fledglings. This site is the most intensively managed of any CWP beaches — driving is allowed, but only in certain areas, and each plover pair is assigned a nest monitor who keeps track of wandering chicks.</p> <p>Third Cliff in Scituate had a better year than recent seasons, with 4 chicks fledged by 4 piping plover pairs, and about 50 pairs of least terns that produced at least 6 fledglings. One chick/pair is below replacement rate for piping plovers, and the proportion of fledgling least terns is much lower - even some productivity is good for least terns, who are very sensitive to disturbance.</p> <p style="font-size: small; margin-top: 10px;"><i>John van de Graaff photos</i></p> 	<p>At Allens Pond Sanctuary (Barney's Joy and Little Beach) the least tern colony was surrounded by electric fencing for the second year in a row. About 196 pairs nested fairly successfully.</p>  <p>18 pairs of piping plovers fledged 31 chicks on 4 Buzzards Bay beaches CWP monitors—great productivity—1.72 fledglings/pair! Two pairs of American oystercatchers fledged one chick.</p> <p>Next summer, CWP Allens Pond Sanctuary field staff will be monitoring and managing Westport town beach post-renourishment. After dredge material is deposited, beaches are likely to become attractive places for plovers and least terns to nest, with lots of new habitat. If you build it, they will come! Many thanks to the town of Westport who recognized the importance of funding this work! Volunteer David Cole from the Westport River Alliance was instrumental in making sure bird conservation was considered in long-term coastal planning.</p>	<p>CWP volunteers and staff based at Wellfleet Bay Wildlife Sanctuary monitored 25 sites this year where plover and tern productivity were variable. Least terns did quite well at Corn Hill in Truro, where this year we hope to work with the town to erect protective electric fencing.</p> <p>South Beach, Chatham was the largest piping plover nesting site in the northeast! Fifty-three pairs of plovers made 93 nest attempts and fledged 27 chicks. Not a great fledging rate—mainly due to high levels of mammalian and avian predation. This large site is difficult to manage from an ecological standpoint, but has very little disturbance from human use. Predators key into the site, a veritable smorgasbord of plover, tern, and oystercatcher eggs and chicks (9 pairs of oystercatchers fledged one... finally, in late September!). Of major concern now is the recent (November) connection of Monomoy with South Beach—the refuge is home to nearly 10,000 common tern pairs, dozens of plovers and American oystercatchers and the state's only breeding black skimmers. Already vulnerable to some predators, the new land bridge is likely to bring many challenges in the years ahead as new predators (small mammals) have access to the 11 mile long stretch of barrier beach. The CWP is working closely with the town of Chatham and US Fish and Wildlife Service to make sure we are able to manage this barrier beach complex effectively in the years to come.</p>	<p>Martha's Vineyard's piping plover population is declining, with 28 pairs island-wide and productivity was low. On CWP-managed sites 13 pairs fledgling 18 chicks. Hatching success increased to 86% this year, probably due to successful use of new enclosure design on all but 2 nests. Intern Val Meyer tested piping plover chick shelters, but their occupancy was limited. Again Martha's Vineyard hosted the largest American oystercatcher population in the state; the number we monitored was lower, with at least 4 chicks fledged from 8 pairs on sites CWP monitored. We welcome a new Islands Coordinator this year, Emily Reddington. Watch for more fun and educational programs at Felix Neck Wildlife Sanctuary and on the beaches this summer.</p>  <p style="font-size: small; margin-top: 5px;"><i>Chick shelter -Valerie Meyer photo</i></p>

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 individual donors; but they are the backbone of the program — there were 191 individual contributions to the CWP in the last calendar year! Those listed below provided funding of \$1000 or more.

- | | | |
|--|---|---|
| Beard Motors, Mr. David Officer and Mrs. Marcia Wade | Mr. and Mrs. Richard Clapp | Ms. Inghilt Traenkle |
| Davis Conservation Foundation | Nuttall Ornithological Club: Charles Blake Fund | Mrs. Frederick C. Crawford |
| Duxbury Beach Reservation | Three Bays Preservation | Quidnet Squam Assoc. Mr. G.P. Edmonds Jr. 2 anonymous |
| The Edey Foundation | town of Sandwich | |
| The Free Lunch Foundation, Mr. David and Mrs. Jade Walsh | | |
| Island Foundation | Save Popponesset Bay | |
| MA Dept. of Conservation & Recreation | US Air Force | |
| MA Landowners Incentive Program | US Fish & Wildlife Service | |
| MA Natural Heritage & Endangered Species Program | | |

Special thanks to donors of field staff housing:
 Kay Crawford, Eleanor Winslow, Carolyn Crowell
Special thanks for boat service and winterization:
 Harry Holloway, West Bay Marine, Inc.

Coastal Waterbird Program
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Cummaquid, MA 02637

FORWARDING SERVICE REQUESTED

Thank you to all CWP donors and friends! This work would not be possible without your support. Every dollar counts ~ we need to raise at least \$10,000 to fully staff our beaches in 2007! On the wish list: optics, tripods, 4-wheel drive vehicle

UPCOMING EVENTS:



**HOT WINGS ~
Jazz for Plovers**
Saturday, April 21, 2007
At Wellfleet Bay WS
\$15 each to benefit CWP
Tickets at (508)-349-2615

6:00 Jazz combo, wine and cheese
7:00 MIT Festival Jazz Ensemble

*Birds of the Seashore Photography
Exhibit and Sale*

North River WS, Marshfield
Opening wine and cheese reception:



Sunday, March 25th
1:00-3:00 pm ~ free
Photographs available for sale
and to order to benefit CWP
Exhibit runs through April 8th

Join us for **Bird-a-thon**— fun and funds for the birds
May 18-19th cookout and concert at Long Pasture at end!
For info: bharris@massaudubon.org 508-362-7475 x9351

From the Director (continued from page 1)

Contact me! bharris@massaudubon.org 508-362-7475 x9351

Over 20 years, the Coastal Waterbird Program has fostered an inspiring conservation success story, but the story does not have an end. It is only with vigilance that we can ensure long-term sustainability of populations of plovers, terns and oystercatchers and their ecosystems. In part, this vigilance means maintenance of the same protective measures: posting and monitoring beaches for nesting success of individual piping plovers, oystercatchers, and least tern populations. But in the face of climate and coastal change, we have to go beyond the status quo. In the coming years we will be expanding our applied management and

research focus, including:

- **restoration of important former breeding sites** for common and roseate terns (Tern Island, Chatham),
- collaborations with our New England partner organizations to study least **tern foraging** in relation to changing fisheries stocks and climate change, and
- partnering with agency biologists to study **roseate tern post-breeding habitat use movements** across Nantucket Sound and Buzzards Bay.

There are no borders when dealing with conservation of coastal birds: they require us to go beyond our perceptions of habitats as discrete units. The ocean's waters, the sandy shoals below, the predator haven in your suburban backyard, the earth's atmosphere – all are a part of the conservation equation for every tiny egg laid on the sand.

– *Becky Harris*