Spring came early this year, and many pairs of piping plovers (PIPL), American oystercatchers (AMOY), least (LETE), and common terns (COTE) were poised to hatch their chicks at the end of the first week of June. However, storm winds and a full moon on June 4th created extreme tides on north-facing beaches that overwashed many nests before they hatched. Fortunately, beach-nesting birds are adapted to such losses, and most re-nested. Many of those pairs are close to fledging chicks as we near the end of July.

It was exciting to have 3 nesting pairs of piping plovers in new locations on the North Shore, and two of those pairs are currently raising their chicks on beaches around Cedar Tree Neck Sanctuary. We collaborated with Sheriff’s Meadow Foundation in protecting these birds. Nesting plovers in new locations could be a sign that the species is recovering. While the season is still in progress, we are currently seeing better productivity than in 2011 for all of the species we monitor.

**Year # Sites # PIPL pairs # chicks fledged #AMOY pairs # chicks fledged # LETE pairs Tern productivity
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2011 14 24 24 9 5 75+ Poor
2012* 16 28 21+ 11 10 150+ Excellent

*2012 season is still in progress. We have 12 PIPL chicks, and many Least tern chicks not yet fledged.

A total of 53 pairs of piping plovers nested on the Island this year. Mass Audubon, the MV Landbank, and The Trustees of Reservations also protect beach-nesting birds. We will all meet soon to share the results of our efforts and to exchange information on predator and people management on nesting beaches.
While monitoring beach-nesting birds, we take note of many other plant and animal species. Of interest this season were Atlantic Ghost Crabs (*Ocypode quadrata*). While this species of land crab has been seen on a few Vineyard beaches for almost 20 years, the island isn’t currently listed as part of their range in field guides for the Atlantic coast.

Ghost crabs are mostly nocturnal and spend the day 2-4 ft. deep in burrows they dig. Thus, few people see them. Their nocturnal habits keep them safe from gulls and crows. These land crabs lay their eggs at the water’s edge and larvae develop at sea. They primarily prey upon small clams and mole crabs in the intertidal zone, but will readily consume the eggs or small chicks of beach-nesting birds when foraging at night.

This year, we noted ghost crab burrows along the entire south shore as well as some north shore sites. In some areas, burrows were larger than we typically see, which may indicate an overwintering population. Next week we will use randomly placed transects at several beaches around the Island to document density and size of ghost crab burrows. We will repeat surveys annually.

Southern plovers and terns have been nesting on beaches with ghost crabs for thousands of years. While it may take a few years, we believe our plovers and terns will adapt to the presence of these potential predators.

### MENTORING IN THE FIELD & LAB

With funding from the Betsy and Jesse Fink Foundation, we hired 5 summer interns who were selected based on their interest in conservation biology and field research.

Four interns, Samantha Chaves, Eva Faber, Ben Gordon, and Emma Jean Holley, were recruited through the science department at Martha’s Vineyard Regional High School. They each work 8 - 10 hours per week learning about monitoring and protecting beach-nesting birds, surveying for kingfisher and swallow nest burrows, identifying prey species consumed by our coastal river otters, and surveying for saltmarsh bird species.

Our 5th intern, Julie Pringle, is majoring in biology at Tufts University. She has been invaluable as our assistant in monitoring and protecting beach-nesting birds. Julie is leading the interns in conducting our bi-monthly survey for predator tracks at nesting beaches.

We meet monthly to discuss our field research methods and data analysis. Liz and I enjoy sharing our passion for biological diversity and research with these dedicated students.
SALTMARSHES ARE VULNERABLE TO SEA-LEVEL RISE

Early in 2011 we agreed to collect data for the Saltmarsh Habitat and Avian Research Program, which involves the entire Atlantic coast (www.tidalmarshbirds.org).

With funding from Nan and Bill Harris, Luanne surveyed 14 saltmarsh sites once during May, June, and July using passive point count methods and by broadcasting recordings of secretive saltmarsh nesting species (rails and moorhen). Local birders Margaret Curtin, Soo Whiting, and Lanny McDowell worked with Luanne on surveys in 2011. In 2012, our interns and interns from The Nature Conservancy - Luke Elder, Max Hoffman, and Nika Slade assisted with surveys.

While we did not detect any nesting rail species, we found saltmarsh sparrows nesting at almost every site. These colorful and secretive birds nest in the saltmarsh hay at the edge of high tides. As sea levels rise, saltmarsh dependent species may be vulnerable in areas where marshes cannot migrate inland.

These Atlantic coast surveys are providing valuable baseline data on the current distribution and abundance of saltmarsh bird species.

VOLUNTEERS MAKE IT ALL POSSIBLE

Protecting hundreds of pairs of nesting birds on our beaches from predation and human disturbance involves a lot of signs, posts, and fencing. Volunteers worked over 175 hours assisting us with all aspects of our beach-nesting bird program. They organized our gear, placed predator fencing and exclosures around nests, located nesting pairs at new sites, and they sat on the beach at all hours of the day to keep crows from eating our piping plover chicks.

Hooray for these bird champions!

Marie Baldwin, Elliott Bennett, Caitlin Borck, Peter Brannen, Kevin Burchill, Sarah Clark, Margaret Curtin, Luke Elder, David Faber, Eva Faber, Ariana Feldberg, Albert Fischer, Whit Griswold, Flip Harrington, Everett & Kent Healy, Sarah Hoffman, Max Hoffman, EmmaJean Holley, Ewell & Tripp Hopkins, Jeremy Houser, Ginny Jones, Brian Lawlor, Liz Loucks, Lanny McDowell, Megan Ottens-Sargent, Cristina Pereira, Chris Perleberg, Andrew Randall, Nikka Slade, Scott Stephens, Penny Uhlenendorf, Laura Wainwright, Justen Walker, Jamie Wasserloos, Nancy Weaver, Soo Whiting, and Nathalie Woodruff.
ABOUT BIODIVERSITYWORKS...

Our mission is to promote conservation of biodiversity through wildlife research and monitoring while providing opportunities for people to engage in hands-on nature study. We are a 501(c)3 non-profit, founded on the Island of Martha’s Vineyard, in March of 2011.

BOARD MEMBERS:
Tom Chase          Chris Neill, Ph.D.
Debra Swanson      David Faber
Luanne Johnson     Liz Baldwin

STAFF:
Director/Wildlife Biologist.............Luanne Johnson
Asst. Director/Wildlife Biologist.......Liz Baldwin

EMAIL:
biodiversityworks@gmail.com

OFFICE LOCATION:
18 Helen Ave. Vineyard Haven, MA 02568
(In The Nature Conservancy office building)

MAILING ADDRESS:
PO Box 557, Edgartown, MA 02539

TELEPHONE:
800 - 690 - 0993

WEBSITE:
http://biodiversityworksMV.org

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3. Share our newsletter with your friends.

COMING IN OUR NOVEMBER ISSUE:

- The Vineyard’s otter population is thriving. We’ll share results from our mapping, monitoring, and otter diet analysis projects.

- Learn about our belted kingfisher and bank swallow nest burrow surveys.

A coastal river otter, photographed by Jeff Bernier

Bank swallows by: Lanny McDowell