



# Egg Rock Update

Newsletter of the Seabird Restoration Program  
of the National Audubon Society

2012

## PUFFIN CAMS GO HIGH DEFINITION

**More than 1.6 million viewers worldwide  
watched Maine seabirds live this summer**

Seabirds usually live in remote locations, making them safer from predators and disturbance, but this puts them out of sight and out of mind when it comes to building conservation support. In the summer of 2012, this changed when high definition video cameras provided remarkable insight into the lives of puffins, terns, and ospreys thanks to a three-year grant from Explore.org, a division of the Annenberg Foundation.

Four cameras were set up in May: three on Seal Island National Wildlife Refuge, and one at Audubon's

Hog Island Camp near Bremen, Maine. Seal Island cameras focused on a puffin loafing ledge, inside a puffin burrow, and on Common Tern nests. Hog Island's camera featured an active Osprey nest.

Video highlights on all the cams will run until next year's nesting season, enticing new audiences to discover the wonderful world of birds, the perils they face, and to become supporters of Project Puffin. Next year, join us to see the live action May-September; meanwhile you can see video highlights at [www.explore.org/birds](http://www.explore.org/birds) ❖



NATHAN BANFIELD



*Puffin Loafing Ledge Cam Viewers could watch the social order of puffins and their courtship behaviors such as billing. Also frequenting the ledge were Razorbills and Common Murres. Puffins enjoy the loafing ledge while the puffin cam shares close-up views worldwide.*



DERBICK Z. JACKSON

*Ospreys "Rachel" (left) and "Steve" raised three chicks at their nest located at the Hog Island Audubon Camp. The eggs hatched in June and people around the world became enchanted with their family life (which our Audubon team helped explain online, in blogs, videos and comments). Viewers watched until the three young fledged in early September.*



*Puffin Burrow Cam took viewers underground with high definition color video for an intimate view of puffin family life. A new chick, (dubbed "Petey" by his many followers) broke hearts, but created awareness, when it died because of a poor food supply. This sad turn of events helped people understand the connection birds and people have with the changing conditions of our oceans and seafood. Biologists at Project Puffin first thought this was an isolated event, however, only about half of the chicks at Seal Island survived this past summer (see feature story on puffin food, page 3). Petey's story inspired many viewers to adopt a puffin.*



*Common Tern Cam featured chicks growing from downy nestlings to gangly fledglings—oblivious to the cam that looked down on their nests.*

**Mission:**  
Developing techniques for restoring seabirds to historic ranges and encouraging the protection and appreciation of seabirds worldwide.

### Seabird Restoration Program Staff

Director: Stephen W. Kress  
Associate Director: Rosalie V. Borzík  
Office Manager: Deborah J. Wood  
Annual Giving Manager: Ruth Likowski  
Assistant to the Director: Terry P. Mingle  
Education Coordinator: Peter Salmansohn  
Education Outreach Specialist: Susan E. Schubel  
Sanctuary Manager: Paula Shannon  
Assistant Sanctuary Manager: Nathan Banfield  
Database Manager: André Breton  
Boat Naturalist: Anthony Liss  
Office Assistant: Arthur Marchese

### Project Puffin Visitor Center Staff

Manager: Susan Meadows  
Assistant Manager: Elizabeth Young  
Volunteers: Teresa Downey, Elyse Socker, Kathy Toubman,  
Brian Trask, Marilyn Trask

### Hog Island Staff

Island Manager: Eric Snyder  
Program Manager: Erica Marx  
Program Assistant: Jamie Wisniewski  
Chef: Janii LaBerge  
Assistant Chef: Patrick Larson  
Camp Store Assistant: Juanita Roushdy

Authors: Stephen Kress, Paula Shannon  
Editors: Rosalie V. Borzík, Linda Welch, Elissa Wolfson  
Design: Green Heron Graphics, Etna, New York

**Project Puffin, 159 Sapsucker Woods Road,  
Ithaca, NY 14850 USA**  
[www.projectpuffin.org](http://www.projectpuffin.org)



**The 2012 Maine Research Team**

**First Row (left to right):** Michael Whalen; Kristina McOmber; Stephen Kress; Jennifer Howard; Emily Pollom; Alex Guyton; Emily Brownlee; Celso Sho; Rosalie Borzík. **Second Row:** Nicholas Huffeldt; Elizabeth Dickinson; Jennifer Primm; Elizabeth Young; Kate MacNamee; Anne Rohn; Evren Lew; Maggie Lee Post; Paula Shannon; Debbie Wood. **Third Row:** Julia Gulka; Jennifer Heisz; Austin Patton; Kiah Walker; Ande Bange; John Gorey; Sia Rasalato. **Fourth Row:** Nathan Banfield; Janine Parziale; Halley Ray Walsh; Caroline Poli; Adam DiNuovo; Evaristo Hernandez-Fernandez; Sam Knopka. **Absent from photo:** Bethany Baldwin; Andre Bretón; Maki Briggs; John Drury; Sandy Flint; Ted Gaine; Anthony Hill; Kelly Hogan; Lindsay Jacks; Emily Kaldjian; Tiffany Kersten; Eliza Kurth; Patrick Larson; Ayla Liss; Nathan Lord; Nancy Ma; Susan Meadows; Emma Ober; Sally Ober; Stacey Palmer; Colin Pennock; Kristin Pennock; Susan Schubel; Eric Snyder; Stella Walsh; Morgaine Witriol.

### Award Recipients

#### **Duryea & Peggy Morton Seabird Internship:**

Maggie Lee Post & Kristina McOmber

#### **Josephine Daneman Herz International Seabird Fellowship:**

Sia Rasalato

#### **Colby College Intern:** Katherine MacNamee

#### **Cornell University Redheads Fund Intern:** Evren Lew

#### **Hobart and William Smith Colleges Intern:** Samuel Knopka

#### **Middlebury College Intern:** Julia Gulka

#### **Mt. Holyoke College Intern:** Elizabeth Dickinson

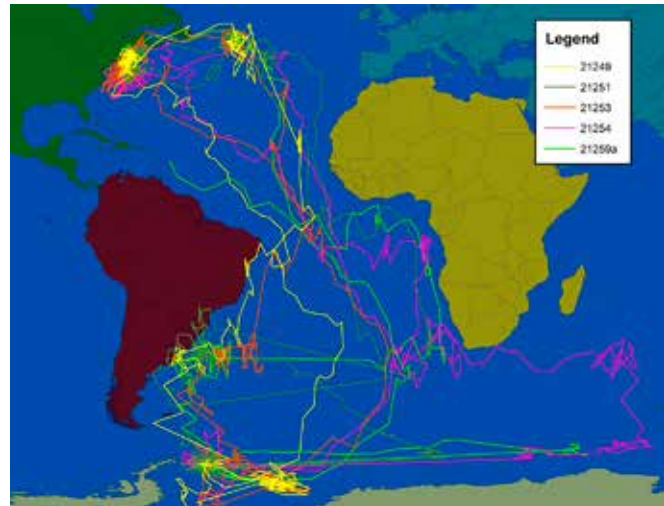
#### **Warren-Wilson College Interns:** Austin Patton & Alex Guyton

## MAINE ARCTIC TERN FLYWAYS DISCOVERED



Arctic Terns hold the title for longest distance migrant. Now a new study of Maine-nesting terns establishes that terns nesting in the same colony may take surprisingly different flyways to their winter grounds in Antarctica. The new insight comes from “geolocators”—tiny devices attached to leg bands that measure day length and time providing an estimate of location. Audubon and USFWS biologists also discovered that all of the birds share the same spring migration path back to Maine. This takes them far from land as they travel up the center of the Atlantic.

A study of Greenland Arctic Terns published in 2010 was the first that used geolocators to follow the champion migrants. That study found that the average annual migration distance for eleven terns was 44,055 miles. The similar study based at Eastern Egg Rock and Metinic Island NWR tagged 30 Maine Arctic Terns. Nine of the 1.6 gram devices were recovered in 2011. These terns flew an average round trip of 36,913 miles. The longest distance migrant from Maine flew a remarkable 44,637 miles in one year. For more details on the study, including maps of the migration and Marine Important Bird Areas, visit [www.projectpuffin.org/ternmigration.html](http://www.projectpuffin.org/ternmigration.html) ❖



Annual migration paths for five Arctic Terns, identified by ID number in legend. Each tern's path is shown by a different color on the map. Map courtesy of USFWS, Maine Coastal Islands National Wildlife Refuge.

## MAINE PUFFINS' WINTER HOME DISCOVERED

The recovery of two geolocators placed on puffins in 2009 has helped to shed light on the little known winter life of puffins. Audubon researchers discovered that the two tagged puffins left Seal Island NWR and travelled north to the Gulf of St. Lawrence and then south to the Bermuda Plateau before returning to their nesting island. The puffin with the most wanderlust was dubbed Cabot. He travelled far offshore to the northern Labrador Sea before heading south to the vicinity of Bermuda during the winter of 2010. To see a map of his travels, visit [www.projectpuffin.org/wanderingpuffins.html](http://www.projectpuffin.org/wanderingpuffins.html) ❖

# PUFFINS, BUTTERFISH AND CLIMATE CHANGE IN THE GULF OF MAINE

**M**aine lobsters made national news this year by molting in April, which was 2-3 months earlier than usual. The early harvest glutted the market, driving the price per pound to a near record low. The news reports focused mostly on how this created trouble for the industry, but the back story was yet another example of the effects of a warming climate on people and wildlife.

This year, biologists recorded the warmest waters known to date for the Gulf of Maine and documented the earliest known plankton bloom, which was in full swing by early March—at least one month earlier than usual. Kevin Friedland, a scientist in NOAA's Northeast Fisheries Science Center summed up the 2012 season for the Maine coast: "Changes in ocean temperatures and the timing of the spring plankton bloom could affect the biological clocks of many marine species, which spawn at specific times of the year based on environmental cues like water temperature."

Animals lower in the food chain, such as the fish on which puffins feed, had a head start with their annual growth because of the early plankton bloom. This was especially problematic for puffins that brought butterfish back to their chicks. Butterfish delivered to puffin chicks in 2012 were the largest recorded in the past eight years, averaging more than twice the length of an average parent puffin's bill.

Puffin chicks can barely swallow small butterfish because of their round shape and usually reject large butterfish. That likely happened this year, as evidenced by the numerous large butterfish that were often found discarded in individual burrows. The abundance of large butterfish, and the shortage of other fish of more suitable sizes and shapes, contributed to a poor year for rearing puffin chicks. The food shortage, along with a June storm that flooded some burrows, resulted in only about a third of the puffin chicks surviving to fledgling age. Fortunately, bluefish were abundant this year, comprising 13% of the pufflings' food. Although bluefish are about as long as butterfish, they are not as round and the puffin chicks are usually able to swallow them.

The Gulf of Maine is noted for its highly productive waters. Here, an annual massive plankton bloom energizes the marine food chain by feeding animals ranging from tiny zooplankton to whales. Phytoplankton (microscopic plants) responds to fresh water from rivers running to the ocean which delivers nutrients such as silicates and nitrates that are necessary for their growth. Puffins and other seabirds depend on the appearance of a few specific kinds of small, nutritionally rich fish at just the right time to feed their young. So, the synchronization of the nesting season with availability of such fish is necessary for puffin chicks to survive. When water temperature increases by even a few degrees, this can affect the size and species composition of the fish that are available to puffins. For this reason, the growth and survival of puffin chicks is an ideal indicator of changes to the Gulf of Maine climate.

At mid-coast Maine puffin colonies, white hake typically makes up a third or more of the puffin's food. However, fishery biologists have found that hake, along with about half of the 36 fish stocks studied in the Northwest Atlantic Ocean, have shifted further northward over the past four decades, with some disappearing from US waters entirely as they move farther offshore. Alternate kinds of fish for puffin chicks will likely become increasingly important and these will need to be just the right size for the chicks to survive.



JENNY HOWARD

*The warmest temperature on record for the Gulf of Maine waters produced an abundance of butterfish that were too large for Atlantic Puffin chicks to swallow. Many discarded butterfish were found inside burrows where pufflings died due to starvation.*



DERRICK Z. JACKSON

*The shape of fish has much to do with their value to puffin chicks. Bluefish (left) are just narrow enough to swallow, especially if they arrive late in the season when chicks are larger. During a "good food year," puffins can collect large loads of hake (right), which have a high food value and are shaped long and slender—easily swallowed by pufflings.*

This past summer has shown that climate effects such as higher water temperatures can have surprising effects throughout the marine habitat. Like the early-shedding lobsters, butterfish too, apparently got an early start due to the warmer-than-usual water and early plankton bloom—growing so fast that they became too large for puffin chicks to swallow. Over the past five years, the Seal Island puffins have produced 0.77 fledglings per pair and the colony has grown to over 500 pairs; this year they produced just 0.31 fledglings per pair, the lowest productivity since the colony was restored in 1992. Since adult puffins can live for decades, a single poor nesting season is not a major problem for this puffin colony, but it signals the need for careful monitoring. Project Puffin biologists and interns will be watching carefully to document and better understand the effects of climate change on puffin nesting. ❖



**W**eather, predators and forage fish all played a part in the outcome of the 2012 seabird season on Audubon-managed islands in the Gulf of Maine.

**WEATHER** In 2012 Audubon-managed islands in the Gulf of Maine experienced the warmest average air and sea surface temperatures since 2002. The number of foggy days was well below average, as was the amount of rainfall. During the first week of June, a storm with strong winds reached 40 mph at Egg Rock and dumped heavy rain (4 inches in one day on Outer Green Island!). High seas occurred during an already high tide cycle and flooded many puffin and razorbill nests. The storm also destroyed five observation blinds, three observation towers, and most of the murre decoys at Matinicus Rock.

**PREDATORS** Two river otters, the first ever recorded at Eastern Egg Rock, caused a decline in nesting puffins from 123 to 104 pairs by eating eggs and birds before they were removed in early July. Roseate and Arctic terns also declined, likely because of the otters and predation from Herring, Great Black-backed and Laughing gulls. At Outer Green Island, a Bald Eagle disrupted the colony by taking tern fledglings at earliest dawn; likewise more eagles and Peregrine Falcons than in 2011 regularly flushed the seabirds at Seal Island NWR. A “Scarey Man” inflatable device was installed to scare away the eagles.

**FOOD** Herring, the ideal seabird food, was abundant in the diet of Common Terns this summer at all colonies except Matinicus Rock. At Seal Island NWR, herring (mostly obtained from a site 12 miles away) comprised 50% of the chick diet. Herring also made up 63% of the chick diet at Pond Island NWR, and was so abundant that terns sometimes brought back several at a time, more than the chicks could consume. Though abundant for terns, herring was scarce for puffins at Seal Island and Matinicus Rock, who fed undersized hake and oversized butterfish (see page 3), resulting in low nesting success.

## STRATTON ISLAND

- 1,033 pairs of Common Terns nested, the second highest number since 2002.
- 112 Least Tern pairs nested, and fledged at least 72 chicks, highest productivity in recent years.
- Roseate terns increased from 51 pairs in 2011 to 71 pairs this year, and fledged 93 chicks.
- A complete Common Eider census found 649 nests, an increase of 276 nests since 2006.



Bill Schortz

## OUTER GREEN ISLAND

- 1,034 pairs of Common Terns produced 1,468 chicks.
- New artificial turf habitat (carpet) was installed in 2012 and was utilized by 26 pairs of nesting terns.
- Despite all guillemot nests being washed out by large waves in an early June storm, 55% re-nested and successfully hatched chicks.



Stephen W. Kniss

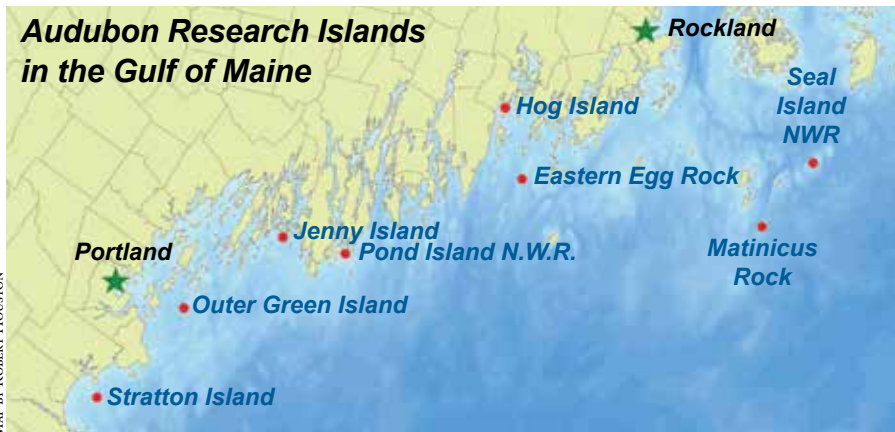
John Gorey (above) examines a Stratton Island Least Tern chick (left).



Adam DiNuovo

Assistant Sanctuary Manager Nathan Banfield with a Great Horned Owl that was trapped and removed from Pond Island NWR on the first day of the 2012 nesting season. The owl was relocated to Northern Maine by the staff of Avian Haven in Freedom, Maine.

## Audubon Research Islands in the Gulf of Maine



Map by Robert Houston

## POND ISLAND N.W.R.

- Two Great Horned Owls were captured and relocated from the island, saving the tern colony from certain failure.
- 597 pairs of Common Terns nested, the highest since restoration began in 1996.
- An average of 2.31 chicks fledged per nest—the highest in the Gulf of Maine—for a total of 1,379 chicks fledged!
- Terns sometimes delivered 2, 3, and even 4 large herring to their chicks at a time.

Adam DiNuovo





STEPHEN W. KREISS

## SEAL ISLAND N.W.R.

- 1,837 Common and 959 Arctic Tern pairs nested, the largest tern colony in Maine. They fledged about 2,500 chicks.
- At least 504 pairs of puffins nested. Two geolocators for puffins were deployed and two from 2011 were recovered.
- 25 Great Cormorant pairs (Threatened status in Maine) produced at least 35 chicks.
- A Red-billed Tropicbird spent 70 days at the island for its 8th consecutive summer.



*Celso Sho, a marine warden with Belize Audubon, prepares a Seal Island Atlantic Puffin chick for banding.*

STEPHEN W. KREISS



*Egg Rock Supervisor, Maggie Post (second from left) is joined by interns Kate MacNamee, Kristina McOmber, and Kiah Walker as they set out to band puffin chicks.*

## EASTERN EGG ROCK

- 817 Common Tern pairs produced 825 chicks and 57 Arctic Tern pairs produced 14 chicks. Roseate Tern productivity was the highest it has been in recent years with 71 pairs fledging 93 chicks.
- 104 pairs of puffins were confirmed nesting; two river otters disrupted the colony early in the season.
- 2,065 Laughing Gull nests were counted, similar to the 2,051 nests in 2011.
- Y33 successfully nested and Y54 was sighted. These are the oldest puffins in North America.

## MATINICUS ROCK

- Puffins' productivity was just 0.43 chicks per nest due mainly to poor-quality food.
- 9 geolocators were recovered from Atlantic Puffins and 3 more were deployed.
- 693 Arctic and 268 Common Tern pairs nested, but only about 475 chicks fledged due to poor-quality food and predation by gulls.
- Two Manx Shearwater chicks were banded.
- Razorbill productivity was a low 0.23 chicks per nest, due to predation and flooding by storms.



STEPHEN W. KREISS

## JENNY ISLAND

- 948 pairs of Common Terns nested, the most since 2000.
- 11 pairs of Roseate Terns fledged 15 chicks.
- Common Tern productivity was a near record high 2.04 chicks fledged per nest, resulting from a diet dominated by high-quality herring.



BILL SCHOITZ



*A Stratton Island Roseate Tern takes advantage of one of the nesting shelters installed by Road Scholars.*

STEPHEN W. KREISS (2)



*Road Scholars from the Hog Island Audubon Camp install geotextile (black underlayer) and outdoor carpet to create new tern habitat on Eastern Egg Rock. To the left of the new habitat is a plot created in 2011 using this method.*

## HOG ISLAND CAMP

### SEABIRD BIOLOGY & CONSERVATION SESSION

Participants of the Road Scholar-sponsored Hog Island Audubon Camp session aided the ongoing effort to create new tern nesting habitat in early June. The 35 Road Scholars built and placed 100 tern nesting shelters on Stratton Island. A U.S. Fish and Wildlife Service grant funded the purchase of habitat improvement materials.



Douglas Allara, D.V.M  
Deborah Allen  
Linda Andersonm  
Paul Anderson  
Eleanor Antinis P.S. 23Q  
Arbor Intermediate School  
Linda Arnow  
Avonworth Elementary School  
Robyn Bailey  
Becky Baird  
Sally Baldwin  
Linda Ball  
Rita Barnum & Dennis Lyons  
Elaine T. Barnum  
Howard & Nancy Baron Jr.  
Richard Barrett  
Dr. A Sidney Barritt III  
Carol H. Barrows  
Richard J. & Sally Bartley  
Dan & Linda Bass  
Lance & Cathy Bayer  
Alma Beals  
Janice Beam  
Karen & Joe Bearden  
Mrs. Becker's Second Graders  
Anita C. Been  
Michael Bell & Amy Trelease-Bell  
Wendy Bennett & Kendall J. Powell  
Barbara C. Bernardin  
Sarah Beuning  
Dale Bicksler  
Kathryn Bigelow  
Mary Blackard  
Jaden Blake  
Kimberly Bland  
Ann Boerner  
Joan & Stuart Boreen  
James & Nadine Boulter & Family  
Kellie Bowen  
Jennifer Boyce  
Ellen Boyette  
Melissa Boysen  
Maryann Bracken  
Richard Brennan  
Edgar Bristol  
Quinn Brock  
Marc & Vivian Brodsky  
Joyce & Larry Brooks  
Catherine D. Brown  
Deborah Brown  
Emily Brown  
Margaret Brown  
Shelly Brown  
Richard & Sue Brugam  
Palmira Brummett  
Spring Buck  
David Buege  
Joelle Buffa  
Pam Bumstead  
Staci Burbridge  
Kelle Buresh  
Chris & Robin Burroughs  
Leslie Burton  
Janice Butler  
Thomas J. & Sandra L. Butler  
Holly Byrne  
Mrs. Bartram Cadbury  
Colin & Deborah Campbell  
Karen Campbell & Jack Miller  
Anne Canfield  
Dr. Catherine E. Canty & Joyce Eife  
Brenda Carlson  
James Carpenter  
Linda Carroll  
John Carter  
Anne Kendall Casella  
Patricia Cassell  
Paul Chad  
Nate & Deedre Chadwick  
Kenneth Chandler  
Iching Chao  
Vicki Chatel  
Joanna Chin  
Amy Choboy  
Dorothy Cholnokoy  
Christine Chow  
Susie Christman  
Colleen Coate  
Caroline & John Coe  
Phyllis Coelho & Lawrence Litchfield  
Verdonna Colby  
David Cole & Betty Slade  
David Colson  
Tammy Conard Salvo  
Kristi Connors  
Conway Elementary Ms. Lopez  
3rd Grade Class  
Acadia Cordero  
Sherri Costello  
Al Cotton  
Ken Coulson  
Davilynn Cowperthwaite  
Ellen Coyne  
Marilyn Crafton  
Cheryl Craigie & John Britt  
Charles & Pleasance Crawford  
Kathryn Cross  
John Cunningham  
Robert Cupp  
Margo Cutler  
Rebecca Dagley  
Peter Damon  
Amanda Daubert  
Barbara D. Davis  
Margaret R. Davis  
Dayton Elementary School  
Kimberly Deal  
David Delia  
John Dembeck & Marjorie Ellison  
Dustin DesRoches  
Winifred Derwiler  
Dan Dickinson  
Nancy Dickinson  
Patricia DiPasquale  
Joseph DiVecchio  
Jocelyn Donald  
Pam Dong  
Carl Donner  
Robert Dowling  
Jean Duffy  
Alan Durfee  
Michael Duttweiler  
Elaine Dynes  
Patricia Eden  
Elizabeth Edwards  
Rosie Elefante  
Mario & Dorothy Ellero  
Ann Ellery  
Jon Emmons  
Ellen Essex  
Lisa Evans  
Justine Faghihifar  
Dr. Jay L. Federman & Dr. Sylvia Beck  
Wallace & Cecily Feldman  
Dawn Fensterbusch  
Karen Fiebig  
James Finn  
Janine Flanigan  
Margaret Fleesak  
Monty Fowler  
Jane Frantz  
Dave & Bonnie Frazelle  
Richard Fried  
Monica Gallacher  
Helen Garton  
Charles Gary  
Susan & Steve Gefvert  
David Gengler  
John & Carole S. German  
Nicole Gilinsky  
Howard Gill, Jr.  
Cristina Giuliani  
Paul Goldberg  
Bill & Carol Golden  
Suzanne & Clyde Goodrich  
Miranda Grace  
Nancy Granert  
Stewart & Rosemary Green  
James Griffin  
Vida-Wynne Griffin  
Nancy Grove  
Dorothea Guthrie  
Caitlin Hagar  
Barbara R. Hamlin  
Susan & Will Harbaugh  
Kevin Hargadon  
Delroy Harman  
Susan Harris  
Kathleen Hartman  
Susan Hartzler  
Angela Hassan  
Martha S. Hassell  
Mary Heck  
Collin & Gwyneth Hein  
Greg Helyer  
Charles Henricks  
Don & Eric Hillmuth  
Mary Ho  
Wendy Holmes  
Ann Hooper  
Sharon Hosley  
Donald P. Hostetler & Wen-Shin Liu  
Robert Hostetler  
Autumn Hudnall  
Sara Humphreys  
Jeanne Hunt  
Leah Hurley  
Gary Hutman  
Ayne Iafolla  
Erin ImHof  
Ellyn Ingalls  
Diana Irwin  
Daniel Ivan  
Dominick Ivener  
Denise Jezak  
Robert J. & Shirley S. Johnson  
Judith Jones & Judith Buhner  
Robert Kaley  
Douglas Kaminski  
Lee Karalis  
Andrew & Michele Kaufman  
Beth Kellogg  
Jodi Kelly  
Mary Ella B. Kelly  
James Kelso  
Eileen Kenny  
Rudha Kerr  
Dominique King  
Nancy Kinner  
Vicky Kipp  
Judy Kirby  
Richard Kittredge  
Trude Kleess  
Jeff & Cathy Kline  
Mikell Kloeters  
Karen Kluge & Terry Rosenmeier  
Gretchen Knowlton  
Scott Kocher  
Ben Korgen  
Bob Krauss  
Evan B. Kress  
Rebecca La Creta  
La Verna Evans Fourth Grade  
Steve Langston  
Mary Jane Large  
Theresa LaRocca  
Patricia Laska  
Mina Leibitz  
Dorothy H. Lee  
Dr. Adrienne Lee  
Janet Lee  
Lynn Leopold  
Cindy Levine  
Christina Linville  
Therese Littlefeather  
Live Oak School 2nd Grade Class  
Geri LeVine Loe  
Christina Lombardino  
Robin Loomis  
Joanna R. Louis, M.D.  
Jason Lowe  
Miriam Luebke  
Burden Lundgren  
Mary Luther  
Chris Mackenzie  
Pamela MacWilliams  
Leila Madeiros  
Carol Maltby  
Jonathan Manley  
Jane & John Marcham  
Howard Markel  
Margaret Marsh  
Linda & David Marsh  
Julia Marsh  
Scott & Paul Mason  
Julia Masters  
James Mau  
Barbara & John McCammon  
Joe McCormick  
Jack McGrew  
Winifred McKelvey  
John McLain  
Jeffrey Meadowcroft  
Rita Merrick  
Melissa Metro  
Gary Meunier  
James A. Meyer  
Jennifer Michaels  
Cathy Miller  
Russell & Amber Miller  
David W. Mills  
Paul Moore  
Kevin Morehart  
Javier Moreno  
Charlotte & Fred Morrison  
Elizabeth Morse  
Joan & Mike Moser  
Katherine Mote  
Stephen Mullane  
Bonnie Mulligan  
Stephen Muncie  
Kevin Munro  
Eric & Linda Murphy  
Dorothy Murray  
Jane Myers  
Richard & Sharon Nash  
Andrea Natalie  
Tina Naugle  
Joanne Neary  
Bogdan Nedelkoff  
Kenneth Netzorg  
Daniel Neuhoff  
Abigail Nixon  
Mary Normandia  
Ann Norsworthy  
Linda & Laurence Novick  
Cris O'Brien  
Anne Ogden & Boyce Martin  
Jane Olsen  
Alexander Olson  
Jody & Tom Onorato  
Orange County Audubon Society  
Keith Oshiro  
Kenneth & Helen Ostermiller  
Deborah Ottenheimer  
Elizabeth Owen  
Lizette Pagan  
Jill Palmer  
Charles & Patricia Parker  
Mrs. D. Williams Parker  
Sandra Parshall  
Alan & Joan H. Parsons  
Barbara E. Parsons  
Patton Elementary Third Graders  
Karen Paul  
Patricia Paul  
Jessica Paulus  
Lisa Payne-Miller  
Billy Petty  
Bob & Pat Phillips  
Capt. Charles & Lora Piersall  
Pam Pipal  
Wendy Pirsig  
Anna Pitts  
Jeri S. Pool  
Nicholas Popp  
Ann Porter  
Lisa Posada  
Barbara Post  
Ed Priest  
Mary Ellen Priest  
Susan Prindle  
Elaine Probasco  
Janice Pruch  
Stephen Pullin  
Sam Radcliffe  
Evgeniy Rakhmanov  
Debbie Ray  
Bob & Ann Palm Reibel  
Curtis Renner  
Dustin Repp  
Traci Reust  
Sarah Riley  
Craig Robbins  
Muriel Roberts  
Marcialyn Robinowitz  
Michael & Megan Robison  
Tom & Ellen Rodney  
Judith Roehm  
Kay Roethemeyer  
Kate Rogers  
Mr. & Mrs. Earl M. Rogers  
Gillian Rosenfeld  
Kathryn Rothermel  
Christopher & Carey Rowsom  
Elizabeth Royston  
Karen Rubinstein  
Travis Ruch  
Georganne Rundblad  
Janis Russell  
Joyce Russell  
Caleb Rusterholtz  
Craig Saunders  
Scott Schless  
Penelope Schmitt  
Nancy L. Schuckman  
Jean Schweis  
Linda Scott & Pat Stein  
David Scott  
Caren Sedlacek  
Joseph Shannon  
Steven Shaw  
Wade Sheldon  
Bill Shepherd  
Dan Sherman  
Mary Shuler  
Carol Sierakowski  
Joan Silaco  
Elizabeth Siler  
Deborah Silverstein  
Allan Simpson  
Joy Skeel  
Bernard Slosberg  
Howard & Florence Smith  
Ambia Smith  
Anne Snelgrove  
Susan & Joel Solomon  
Nancy B. Soulette  
Elise Sprunt  
Key & Jo Stage  
Jo Ann Stein  
Heidi Steiner  
Arnold Stellema  
Jane Stevens  
Patricia Stoecklein  
Nancy Streiffert  
Debbie Sullivan  
Rachel Sullivan  
Eugene Sullivan  
Kristin Sweeney  
Patrick Switzer  
Daniya Tamendarova  
Patti Tauscher  
Christina Taylor  
Christina Teeuw  
Leslee A. Temple  
Cynthia Tessien  
Martha Teumim  
The Children's Workshop  
Dr. Patricia Theodosopoulos  
Doe Thomas  
Paul Thomas  
Andrea Thomas  
Cleo Thompson  
David Tieman  
David & Alice Torbett  
Kevin & Nicole Torres  
M. J. Tower  
Harrison Towle  
Brian & Marilyn Trask  
Marleen A. Troy  
Dorothy Uhl  
Betty Van Dyke  
Trine Vanderwall  
Thomas Vanioris  
Desiree Varasteh  
Maria Vasilyadis  
Dr. Susan Vaughan  
Olivia Verdugo  
Audrey Villecco  
Vicky Vladic  
Stephan Waldmann  
Elizabeth Wark  
Corinne Washik  
Cynthia F. Webster  
Carolyn Wei  
Chris West  
Michael & Cathy Whalen  
Dr. Rebecca Wheeler  
Richard & Julia White  
Jane Whitney & Richard Hero  
Richard & Barbara Wiles  
John Willson  
Jill Wilson  
Charlie Winker  
Windrop Harbor Sch. Westfield School  
Barry Wolverton  
Woodcrest Puffin Protectors  
Scott Woods  
Gladys Wright  
Diana Yao  
G. Eugene Yates  
Mr. & Mrs. Yuri Yatsevitich  
Barbara Zellely  
Danielle Zimbardi  
Jennifer Zolot  
Robert Zoppel

**MATCHING GIFTS**  
ExxonMobil Matching Gifts Program  
GE Foundation Matching Gifts  
National Grid  
*Employer matching gifts can double your support.*



# Project Puffin

## SEABIRD RESTORATION PROGRAM

159 Sapsucker Woods Road • Ithaca, NY 14850 USA

### ADDRESS SERVICE REQUESTED

#### 2013 Hog Island Programs

6-day programs for adults, teens and families.

- Seabird Conservation
- Joy of Birding
- Field Ornithology
- **NEW** The Arts of Birding
- Coastal Bird Studies for Teens
- Sharing Nature: An Educator's Week
- Family Camp
- Migration & Monhegan Island

For more information or to register, visit [hogisland.audubon.org](http://hogisland.audubon.org) or call (607) 257-7308, Ext. 14



## ACKNOWLEDGEMENTS

The Seabird Restoration Program is a department of the Science Division of the National Audubon Society. We acknowledge Gary Langham, Kathy Dale and Don Ekstrom and Laura Silver for their solid support and encouragement. We also thank John Fitzpatrick and the Cornell Laboratory of Ornithology staff for continued cooperation.

In addition, we thank Brad Allen and the Maine Department of Inland Fisheries and Wildlife for permission and logistic support for our work on Eastern Egg Rock, Jenny Island and Outer Green Island. We also thank Beth Goettel, Brian Benedict and the staff of Maine Coastal Islands National Wildlife Refuge for their continued cooperation for our studies on Seal Island NWR, Pond Island NWR and Matinicus Rock. Robert Houston, Biologist for the USFWS Gulf of Maine Program graciously provides logistic and field support. We also thank the Prout's Neck Audubon Society for their loyal support for our work on Stratton Island.

***It is a special pleasure to acknowledge the following for their generous assistance and gifts***

Avian Haven  
 Marie Benedetti  
 Carolyn Bessey, Planet Fitness,  
 Brunswick, ME  
 Henry & Hilde Bird  
 Elizabeth Boothby  
 Nadine, James, Olivia &  
 Jackson Boulter  
 Dorothy Buerk  
 Robert & Amy Campbell  
 Dave Corbeau, Harbormaster,  
 Pine Point, ME  
 Diane DeLuca & Steven Walker  
 Mike & Sindee DiBenedetto  
 John Drury & Lucy McCarthy  
 Terry Dunning  
 Sandy & Sherry Flint  
 Walter & Ann Gamble  
 Gunnar Gunderson &  
 Lincoln County Rifle Club  
 Graham Hallward  
 Hardy Boat Cruises  
 Carl & Lee Ann Hoffner  
 Holy Martyr's Church, Falmouth ME

Debbie Jackson & Prout's Neck Assoc.  
 Kieve-Wavus Education: Bill Chapman & Henry Kennedy  
 Lucy LaCasse  
 Charles & Sally Lee  
 Dr. James Li  
 Maine Audubon: Sue Cilley &  
 Bob Bittenbender  
 Megan Martin  
 Janice & Lennart Olson  
 Rich Parker  
 Herb & Pat Pratt  
 Prout's Neck Audubon Society  
 R.N. Fish & Son, Inc.  
 Rising Tide Co-op  
 Juanita Roushdy  
 Bill Scholtz  
 Tom Toohy &  
 Prout's Neck Yacht Club  
 Alan Twombly, Harbormaster,  
 Falmouth, ME  
 United Natural Foods, Inc.  
 Stella Walsh  
 George Wood



STEPHEN W. KRESS

## LEAVE A LEGACY FOR SEABIRDS

With the addition of the following paragraph in your will, you can leave a legacy for seabirds through the Seabird Restoration Program: Project Puffin Endowment Fund.

"I bequeath \_\_\_\_\_% of my residuary estate (or a specific sum of \$\_\_\_\_\_) to the National Audubon Society, Inc., a not-for-profit environmental conservation organization with its headquarters at 225 Varick St., 7th Fl, New York, NY 10014 for the permanent endowment of its Seabird Restoration Program (also known as "Project Puffin")."

## ADOPT-A-PUFFIN

**Puffin devotees who contribute \$100 or more (tax deductible) to the Seabird Restoration Program will receive a certificate of adoption for one Eastern Egg Rock puffin, along with a photograph and a biography of the bird.**

Call us at (607) 257-7308 or adopt online at [www.projectpuffin.org](http://www.projectpuffin.org)



BILL SCHOLTZ