

**Proceedings of the Harbor Herons Subcommittee  
6<sup>th</sup> Annual Meeting of  
Greater New York/New Jersey Harbor Waterbirds  
Working Group**



**Fort Wadsworth, Staten Island**

**January 13, 2011**



**Proceedings of the Greater New York/New Jersey Harbor  
Colonial Waterbirds Working Group**

**January 13, 2011  
Fort Wadsworth, Staten Island  
210 New York Avenue, Staten Island, NY 10305-5019  
Tel. (718) 354-4500**

**Organized by:  
New York City Audubon  
Harbor Herons Subcommittee of the NY-NJ Harbor Estuary Program**

**Hosted by:  
National Park Service**

**Sponsored by:  
ConcoPhillips Bayway Refinery  
NY-NJ Harbor Estuary Program  
National Park Service  
New York City Audubon  
New Jersey Audubon Society  
WCS-NOAA South Bronx Waterfront Partnership**

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## MEETING AGENDA

**Thursday, January 13, 2011**

Greater New York/New Jersey Harbor Herons and Waterbirds Working Group Annual Meeting  
Fort Wadsworth, 210 New York Avenue, Staten Island, New York 10305

<b>9:00-9:30</b>	<b>SIGN-IN AND COFFEE</b>
9:20-9:30	<b>Welcome and Introduction</b> Jessica Browning, <i>National Park Service</i> ; Susan Elbin, <i>NYC Audubon</i> and Nellie Tsipoura, <i>NJ Audubon Society (Harbor Herons Subcommittee)</i>
9:30 -9:35	<b>Update from the Hackensack Riverkeeper</b> Hugh Carola, <i>Hackensack Riverkeeper</i>
9:35-9:48	<b>Inland Night-Heron Survey and 2011 Plans</b> Chris Kisiel, <i>NJ Div. of Fish and Wildlife: Endangered and Nongame Species</i>
9:48-10:01	<b>Predator/Prey Interactions in Contaminated Environments</b> Judith Weis, <i>Rutgers University</i>
10:01-10:14	<b>2008 Secretive Marshbird Survey</b> Susan Stanley, <i>New York City Parks: Natural Resources Group</i>
10:14-10:27	<b>Saltmarsh Sparrow in New York City</b> Nate McVay, <i>New York City Parks: Natural Resources Group</i>
10:27-10:40	<b>NYC Parks Restoration Status Report for Prall's Island</b> Alexander Summers, <i>New York City Parks: Natural Resources Group</i>
10:40-10:45	<b>Shorebirds in Jamaica Bay. IWASH 2010 update</b> Susan Elbin reporting for John Rowden, <i>NYC Audubon</i>
10:45-10:58	<b>Piping Plover and Colonial Shorebird Monitoring Data for Gateway NRA.</b> Tony Luscombe. <i>National Park Service</i>
10:58-11:10	<b>Plans for Waterbirds on Randall's Island for 2011.</b> Victoria Ruzicka, <i>New York City Parks and Recreation.</i>
11:23-11:36	<b>Harbor Herons Conservation Plan – Overview and Next Steps for Completion</b> Susan Elbin, <i>NYC Audubon</i> , and Nellie Tsipoura, <i>NJ Audubon Society (Harbor Herons Subcommittee)</i>
11:36-11:50	<b>A Harbor Herons Pilot Project for the NY/NJ Harbor Estuary Program</b> Kate Boicourt and Robert Nyman, <i>Harbor Estuary Program</i>
11:50-12:05	<b>BREAK</b>
12:05-12:15	<b>Update from Dick Veit's lab.</b> Ivana Novcic, <i>College of Staten Island</i>
12:15-12:30	<b>Gateway NRA's Role in Airport Bird-Hazard Monitoring and Management in Jamaica Bay, NY.</b> George Frame, <i>National Park Service</i>
12:30-12:43	<b>Radar and Its Limitations.</b> Laura Francoeur, <i>Port Authority of NY and NJ</i>
12:43-12:56	<b>Gateway National Recreation Area's General Management Plan Process.</b> Dave Avrin, <i>National Park Service</i>
12:56-1:45	<b>LUNCH (provided)</b>

1:45-2:00	<b>2010 Harbor Heron Nesting Survey.</b> Liz Craig, <i>NYC Audubon and Cornell University</i>
2:00-2:05	<b>Cormorants in the Harbor Update 2010.</b> Susan Elbin, <i>NYC Audubon</i>
2:05-2:10	<b>2010 Gull Survey Results.</b> Brian Washburn, <i>US Division of AgricultureAphis</i>
2:10-2:15	<b>Diet of Double-crested Cormorants in the NY Harbor. Investigations into the factors affecting pellet production.</b> Colin Grubel, <i>CUNY</i>
2:15-2:28	<b>Flight line Study of Double-crested Cormorants.</b> Richard Flamio, <i>Eastchester High School.</i>
2:28-2:42	<b>Harbor Herons Foraging Survey -Update on the 2010 Season.</b> Kristin Munafo and Elizabeth Ng, <i>NJ Audubon Society</i>
2:42-2:55	<b>Harbor Herons Citizen Science Surveys: Issues, Constraints, and Future Directions.</b> Nellie Tsipoura, <i>NJ Audubon Society</i>
2:55-3:10	<b>Roosting Habits and Post-fledging Dispersal of Juvenile Great Egrets.</b> Chip Weseloh, <i>Canadian Wildlife Service, Environment Canada</i>
3:10-3:23	<b>Contaminant Levels in Herring Gulls from NY Harbour and the Great Lakes</b> Chip Weseloh, <i>Canadian Wildlife Service, Environment Canada</i>
3:23-3:36	<b>Passaic River Early Sediment Removal Action Relative To Protecting Migratory Birds From Adverse Effects.</b> Tim Kubiak, <i>U.S. Fish and Wildlife Service</i>
3:36-3:51	<b>BREAK</b>
3:51-4:05	<b>A Banding Study of Common Terns on Pettit Island, NJ: Preliminary Results.</b> Brian Palestis, <i>Wagner College</i>
4:05-4:18	<b>Stable Isotope Analysis Monitoring the New York Harbor Using of Herring and Great Black-backed Gull Feathers. A Pilot Study.</b> Liz Craig, <i>NYC Audubon and Cornell University</i>
4:18-4:25	<b>Habitat and Nutritional Condition of Waterbirds: Ptilochronology as a Novel Bioindicator Tool.</b> Charles Clarkson, <i>University of Virginia</i>
4:25-4:45	<b>WRAP UP and ROUND ROBIN</b>



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### **Stay Connected.....**

**...via the listserv for Harbor Herons, cormorants, and other colonial waterbirds of the greater New York Harbor.**

If you are not already on the Colonial Waterbirds listserv, please contact Susan Elbin at selbin@nycaudubon.org with a request to have your email address added.

## **FORT WADSWORTH, STATEN ISLAND**

Fort Wadsworth has guarded the entrance to New York Harbor for over 200 years. Strategically located on the bank of the Verrazano Narrows on the Staten Island coast, it has the distinction of being the fort with the longest continuous military history in the county.

Now inactive and managed by the National Park Service as part of the Gateway National Recreation Area, Fort Wadsworth was one of the most important military bases in the country for much of our nation's history. In 1995, the last military tenant, the navy, departed and officially turned Fort Wadsworth over to the Department of the Interior. In 1997, Fort Wadsworth opened to the public as part of Gateway National Recreation Area. This historic park site now offers some of the best views of the harbor and city.

For more information on Fort Wadsworth, go to:

[http://statenilandusa.com/pages/ft\\_wadsworth.html](http://statenilandusa.com/pages/ft_wadsworth.html)  
<http://www.nyharborparks.org/visit/fowa.html>

## NEW YORK-NEW JERSEY HARBOR ESTUARY PROGRAM

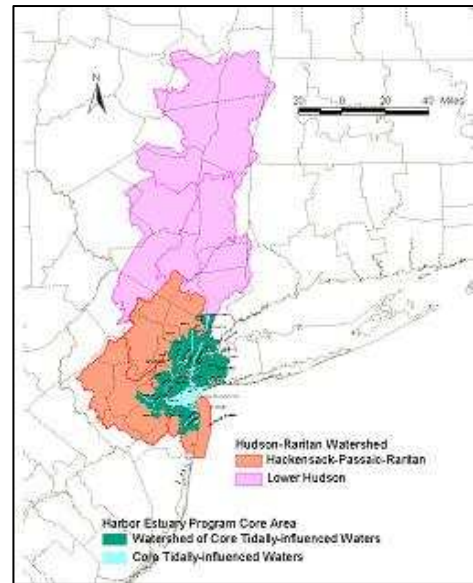
[www.harborestuary.org](http://www.harborestuary.org)

The New York-New Jersey Harbor Estuary Program (HEP) was established under the federal Clean Water Act and is a partnership of federal, state, and local environmental agencies, scientists, and citizens working to protect and restore the natural resources of the NY-NJ Harbor Estuary. The Harbor Estuary is both a dynamic living ecosystem and a center of human activity. The goal of the program is to establish and maintain a healthy and productive harbor ecosystem with full beneficial uses.

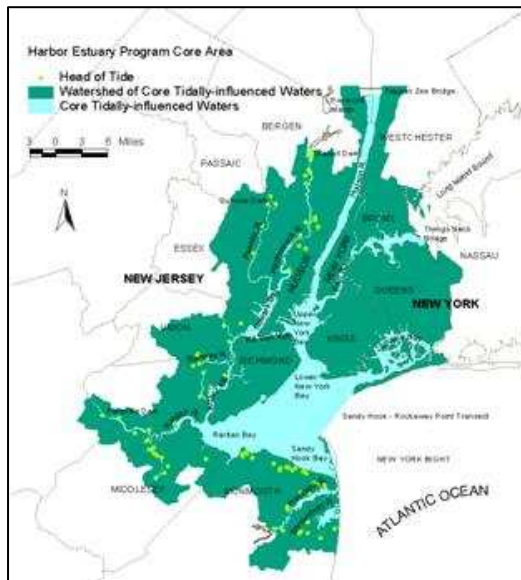
### *Geographic Location*

The NY-NJ Harbor Estuary encompasses the waters of NY Harbor and the tidally influenced portions of all rivers and streams flowing into it. The “core area” of the Harbor Estuary Program extends from Piermont Marsh on the Hudson River to an imaginary line at the mouth of the Harbor connecting Sandy Hook, New Jersey and Rockaway Point, New York (the Sandy Hook-Rockaway Point Transect).

The core area includes the bi-state waters of the Hudson River, Upper and Lower Bays, Arthur Kill, Kill van Kull, and Raritan Bay. In New York, it includes the East and Harlem Rivers and Jamaica Bay, and in New Jersey, it includes the Hackensack, Passaic, Raritan, Shrewsbury, Navesink, and Rahway Rivers, and Newark and Sandy Hook Bays.



*HEP watershed.*



*HEP core areas.*

### *Planning and Activities*

A Comprehensive Conservation and Management Plan (CCMP) for the Estuary was completed in 1996 and signed by the governors of NY and NJ, and the EPA Administrator in 1997. The CCMP identifies eight areas of concern: habitat and living resources; toxins; dredged material management; pathogens; floatables; nutrients and organic enrichment; rainfall-induced discharges; and public involvement and education.

The program is overseen by a Policy and Management committee structure and technical activities are undertaken by a number of work groups that focus on topics including nutrients, pathogens, toxics, habitat, regional sediment management, and public access. Major initiatives include the assessment of water quality and the development of plans to meet standards, assessment of the major needs for ecosystem restoration, and assessing regional sediment management needs.

## ABSTRACTS

*(Alphabetically arranged by presenter's last name)*

This section includes all abstracts submitted for presentation, some of which were cancelled because of weather. FILES OF THE PRESENTATIONS CAN BE FOUND ONLINE AT: <http://www.nps.gov/gate/naturescience/harbor-herons-and-colonial-waterbirds-annual-symposium.htm>

### A HARBOR HERONS PILOT PROJECT FOR THE NY/NJ HARBOR ESTUARY PROGRAM.

Kate Boicourt. Harbor Estuary Program.

New York City and New Jersey Audubon have been monitoring the harbor's egrets, ibises, and herons for over two decades. The NY/NJ Harbor Estuary Program's (HEP) Harbor Herons subcommittee has focused on these populations, and recently completed the Harbor Herons Conservation Plan. The Conservation Plan suggests that we do not know enough about heron nesting site selection, or what restoration/management techniques (for both improved nest and forage habitat) are sufficient to attract and sustain populations for years to come. In discussion with Susan Elbin and Nellie Tsipoura of Audubon, HEP's Restoration Working Group has agreed upon a need to pursue the possibility of advancing this understanding. In particular, a pilot that incorporates restoration actions and a study of the effectiveness of these actions is needed to inform future restorations of the "Islands for Waterbirds" Target Ecosystem Characteristic (of the Hudson-Raritan Comprehensive Restoration Plan). This presentation is an introduction of the possibility, highlighting the goals of the pilot and some potential sites.

### SECAUCUS YCNH COLONIES.

Hugh Carola. Hackensack Riverkeeper, Inc.

Harmon Cove\*: 6 nests (1 possible failure) = 15 fledglings

Schmidt's Woods: 2 nests = 6 fledglings

\*of particular concern is a feral cat colony in and around this supposedly "exclusive" subdivision.

General observations:

1. Fewer BCNHs were observed in 2010 than in any previous year I can recall.
2. GE and SE numbers were in line w/ previous years; perhaps up a bit.
3. No GHs appear to have nested in Mill Creek Marsh, Secaucus in 2010.
4. 2 pairs of GBBG nested near the head of Newark Bay - 1 each near the mouths of the Hackensack and Passaic Rivers.



## HABITAT, NUTRITION, AND MERCURY IN WATERBIRDS: PTILOCHRONOLOGY AS A NOVEL BIOINDICATOR TOOL.

Charles Clarkson. University of Virginia.

The use of focal species in determining the condition of a particular habitat type is a growing trend in conservation and management. In coastal-marine environments, bioindicators have been identified as the most ecologically relevant focal species for guiding coastal estuary monitoring programs. Colonial waterbirds have long been used as bioindicators due to their intimate connection with the hydrologic regime, high trophic position, and central place foraging at breeding locations. Population-level observations are frequently used for monitoring the health of near-shore habitats utilized by waterbirds, however these data are often limited to indicating that change has taken place and lend little predictive power to causality. Individual-level observation serves as a more useful tool for identifying the proximate factors leading to population-level fluctuations. Attributes of the individual that can accurately represent the threat associated with change are useful bioindicator tools and, when coupled with population-level data, prove useful for ecosystem monitoring. The novel approach of ptilochronology has been used to determine the nutritional health of nestling waterbirds in two locations of drastically different environmental qualities during the 2009 and 2010 breeding seasons. This approach has been coupled with analysis of diet, mercury burden, and nest-site interactions. Initial results suggest that waterbirds breeding along the Virginia Coast Reserve (VCR) experience superior nutritional condition than individuals breeding in the New York Metro Region. Additionally, birds in New York produce more fault bars, an indicator of acute stress during development, than birds in Virginia. Surprisingly, mercury burden is higher in Virginia birds, but may reflect a diet of prey items that are higher in the estuarine trophic web.

## 2010 HARBOR HERONS SURVEY.

Elizabeth Craig. NYC Audubon, Cornell University

New York City Audubon's Harbor Herons Project Nesting Survey of the New York Harbor and surrounding waterways was conducted between 18 and 27 May 2010, with additional observations in June and July. This report summarizes long-legged wading bird, cormorant, and gull nesting activity observed on selected islands, aids to navigation and at one mainland colony.

Species summaries: Nine species of long-legged wading birds nested on nine islands in New York Harbor. These species, hereafter collectively referred to as waders, included Black-crowned Night-Heron, Great Egret, Snowy Egret, Glossy Ibis, Yellow-crowned Night-Heron, Little Blue Heron, Tricolored Heron, Cattle Egret, and Green Heron. Since the previous comprehensive nesting survey in 2007, varying degrees of population increase were observed for the Black-crowned Night-Heron, Yellow-crowned Night-Heron, Great Egret, Snowy Egret, and Glossy Ibis populations. The Tricolored Herons, Little Blue Herons, Green Herons, and Cattle Egrets continued to nest at low numbers. Black-crowned Night-Herons continue to be the numerically dominant nesting species in most mixed-species colonies. A total of 1,372 Double-crested Cormorant nests were observed, representing an increase from the 2007 total of 1,046

nests and the 2009 total of 1,183 nests. Gull nesting activity was observed on all surveyed islands using both adult and nest counts in 2010.

Island summaries: The largest species diversity was observed on Canarsie Pol (eight species) as in previous years. The greatest total number of nests was observed on Hoffman Island (624 nests), surpassing South Brother Island, which had been the largest wader colony in previous years, and continued to support a large portion of the wader community in 2010 (456 nests). No active wader nests were observed on the three islands in the Arthur Kill and Kill Van Kull. Following an eight-year decline, this year marks the third consecutive year in which no waders were observed nesting on North Brother Island. Wader nesting activity on Huckleberry Island continued to persist at low levels. Mainland nesting of Yellow-crowned Night-Herons was observed at the Redfern Houses colony in Far Rockaway, where 65 nests were observed. Double-crested Cormorants nested on eight islands, including Canarsie Pol (for the first time in the history of these surveys). Additional cormorant nests were observed on aids to navigation in the Kill Van Kull, Arthur Kill and northwestern Raritan Bay

#### EXAMINING NY HARBOR COLONIAL WATERBIRD FORAGING ECOLOGY: A STABLE ISOTOPE APPROACH.

Elizabeth Craig, NYC Audubon, Cornell University

Stable isotope analysis has proven to be an effective tool for monitoring foraging ecology and diet in many bird species. In this study, we compared foraging habitat use, trophic position, and diet selectivity across seven colonial waterbird species nesting within the New York Harbor urban estuary. We collected feathers from chicks during banding activities on five nesting islands in New York Harbor from 2007 to 2010. Using stable isotope analyses, we were able to compare  $^{13}\text{C}$ ,  $^{15}\text{N}$ , and  $^{34}\text{S}$  among our focal species. We found significant differences in foraging habitat, diet selectivity, and trophic position among the suite of species observed. We also observed spatial and temporal differences in resource use within several of our focal populations. We conclude that stable isotope analysis of feathers is a powerful and non-invasive tool for studying foraging ecology of colonial waterbirds in urban systems. The findings of this research complement the behavioral observations of foraging ecology conducted by citizen scientists through the New York City and New Jersey Audubon societies.

#### DOUBLE-CRESTED CORMORANTS IN THE NEW YORK HARBOR. UPDATE FROM THE 2010 FIELD SEASON.

Susan B. Elbin, NYC Audubon and Elizabeth C. Craig, NYC Audubon and Cornell University.

Active Double-crested Cormorant (DCCO) nests were counted in 2010 as part of the Harbor Herons Nest Survey. This is the sixth consecutive year we have counted cormorant nests, using the same team and the same methods. The 2010 survey resulted in 1411 active nests on 8 islands. This is the first year we have seen cormorants nesting on Canarsie Pol, Jamaica Bay. Disturbance from restoration efforts on Elder's Marsh West may have caused birds to move to Eler's Marsh East and to Canarsie Pol, a near-by island. The 2010 nest count per island was: Shooter's Island – 35; Huckleberry Island -358; South Brother Island -264; U Thant -31;

Hoffman Island -216; Swinburne Island -320; Elder's Point Marsh -0; Elder's Point Marsh -4; Canarsie Pol -144. The number of DCCO nesting on islands in the NY/NJ harbor increased 16% from last year's 1218 nests; the 2009 count was 12% lower than that of 2008. Cormorant numbers have fluctuated every year since our surveys began in 2005. The number of nests is still 22% lower than the high count (n=1806) in 1995. During June of 2010 our NYC Audubon cormorant team banded 201 birds on Swinburne Island in the Lower NY Harbor. This brings the number of color-banded birds to 1119 since the start of the banding program in 2006. We saw one 3-yr-old return to Swinburne in 2009; we saw five banded birds on nests on Swinburne Island in 2010. The number of band reports or live sightings are helping us create a picture of wintering areas for NY Harbor DCCO and include both Atlantic and Gulf coasts of Florida as well as Alabama, inland Alabama, and the coast of South Carolina.

#### GATEWAY NRA'S ROLE IN AIRPORT BIRD-HAZARD MONITORING AND MANAGEMENT IN JAMAICA BAY, NY.

George Frame. National Park Service.

1. Introduction (1990s bird strike data & 1994 EIS for gull management & Bird Hazard Task Force),
2. Annual multi-agency monitoring of the declining Laughing Gull colony at JoCo Marsh,
3. Addling eggs of Mute Swans by Gateway NRA (starting in 1994),
4. NPS Laughing Gull study and recommendations offered to JFK airport,
5. Gateway NRA weekly year-round counts of geese & gulls at 5 sites in Jamaica Bay,
6. The changing bird hazards at JFK Airport, expanded on-airport shooting, & improved management activities
7. Resident Canada Goose round-up on Pennsylvania Avenue Landfill (as Part of the NYC round-ups)
8. Counts of geese & gulls & swans at East Pond & West Pond,
9. Plan to re-distribute Osprey nest platforms in Jamaica Bay,
10. Proposal to create alternative L. Gull nest habitat in future saltmarsh restoration.
11. New NEPA compliance to re-evaluate goose & gull & pigeon/starling/other species management in JBWR.

#### FLIGHT LINE STUDY OF DOUBLE-CRESTED CORMORANTS AROUND LONG BEACH ISLAND, NJ, PRELIMINARY RESULTS.

Richard Flamio. Eastchester High School.

Abstract: Double-crested Cormorants, *Phalacrocorax auritus*, annually frequent the waters around Long Beach Island, New Jersey. In a preliminary study of their flight patterns, we observed birds at two communal roosting locations, noting the travel directions of arriving and departing birds. Flight lines of these water birds were determined by following them by boat and using binoculars and a compass. Of the birds observed at Myer's Hole (N=25), those arriving in midmorning flew in most frequently (20% of observations) from the northeast, while

birds departing the area most frequently (15%) headed to the southwest. In the late morning and early afternoon, most arriving birds flew in from the southwest (20%) or northeast (15%), and departed to the northeast (10%) or west (10%). Of the birds observed in Turtle Cove (N= 25), the largest proportion (25%) flew in from the northeast and the most departing birds (45%) flew to the southeast. Flight paths tended to go between resting locations on man-made structures or from these locations to foraging areas. Birds were observed in foraging areas popular with fishermen as well as traveling to and from marinas, Barnegat Inlet, and local marshes. Understanding how double-crested cormorants utilize their environment may help conservationists understand how to manage growing populations of these birds.

#### AVIAN RADAR - EXPERIENCE AT JOHN F. KENNEDY INTERNATIONAL AIRPORT. Laura Francoeur. Port Authority of NY and NJ.

Radar has been used for several decades to detect birds, such as Nexrad radars that track songbird migration. However, the use of radar to detect birds at civilian (commercial) airports is relatively new. The Federal Aviation Administration (FAA) William J. Hughes Technical Center has a pilot program with avian radar at three civilian airports: Seattle-Tacoma International Airport, O'Hare International Airport, and John F. Kennedy International Airport (JFK). This program is assessing the use of avian radar to monitor bird movements on and around the airport environment in support of the airports' Wildlife Hazard Management Plans and in identifying potential threats to the safe operation of aircraft. FAA has collaborated with the University of Illinois, Center for Excellence in Aviation Technology (CEAT) to conduct the radar performance assessments. JFK has worked closely with CEAT to define objectives for analysis and analyze the radar data. Avian radar was deployed at JFK in January 2010 and after an initial period of tuning and calibration, the radars have been operating continuously since March 2010. The initial objectives defined by JFK were to analyze general activity, night movement, migratory activity, and local bird movements. The analysis focused on data obtained from the AR-2 radar, consisting of two parabolic dish antennas angled at 4° and 6° above horizontal. Masks were used in some areas of the lower AR-2 to eliminate influence of non-bird target detection in our analysis. The radar detects targets at different altitudes in one area. We analyzed several variables such as timing (sunrise/sunset and tides), location of initial track observations (ITO), and the direction of movement. We selected 30-minute time periods for analysis due to the large number of tracks at JFK. Peak bird activity was at sunrise and sunset, with heavier activity in the afternoon. There was little activity at night or periods of darkness preceding sunrise and following sunset. Most bird activity was detected in Jamaica Bay, particularly over Rulers Bar Hassock near the Jamaica Bay Wildlife Refuge. Further studies are needed to test the validity of the radar results and to compare the radar tracks over Jamaica Bay with those recorded over JFK. Early results from these analyses has shown the limitations of radar in detecting birds and it is not yet ready to become an off-the-shelf product used at airports. The radar cannot yet detect whether the target is a flock of birds or a single bird or identify bird species. There is also a trade-off between near and far detection and multiple radar units are required to cover a large airfield. Because radar takes up to 2.5 seconds to make one complete rotation, it is not practical for use as a real-time detection tool. It takes at least two or three rotations to create a track of a target and that delay means that in real-time, the bird may be past the airport boundaries before it is detected flying overhead. Lastly, the avian

radar systems are expensive tools that require full-time dedicated staff that are skilled in interpreting the complex data. Avian radar holds promise for future use and can be used as a historic tool to assist airports in wildlife management goals.

THE DIET OF THE NY DOUBLE-CRESTED CORMORANT POPULATION  
Colin Grubel. CUNY Graduate Center and Queens College.

Research into the diet of the local population of Double-crested Cormorants, *Phalacrocorax auritus*, has been conducted during the breeding and chick-rearing seasons every year since 2006. Differing from previous years, most of the samples collected in 2010 were collected on South Brother Island, with Swinburne only being visited once. A total of 168 boli were collected comprising a total of 223 food items. Thirty species were identified, including twenty six species of fish, three species of crustaceans and one mollusc. The diets of the two communities showed little overlap with hogchoker, *Trinectes maculatus*, and goldfish, *Carassius auratus*, being the most common species at South Brother and spotted hake, *Urophycis regis*, being the most common at Swinburne.

INVESTIGATIONS INTO THE FACTORS AFFECTING PELLET PRODUCTION IN  
DOUBLE CRESTED CORMORANTS.  
Colin Grubel. CUNY Graduate Center and Queens College.

Double-crested Cormorants regurgitate pellets containing the undigested bones, scales and otoliths from meals. Researchers studying the diets of Double-crested Cormorants often dissect these pellets to determine what the birds have been eating. The speed with which these pellets are produced and the species is variable and the proportions of species found in pellets often differs greatly from the proportions of species eaten, affecting the accuracy of consumption estimates. Possible factors affecting this are the spininess, size, and otolith morphology of prey species. To investigate the biases wild-born captive birds, were used in a series of feeding trials. Birds were fed diets of pinfish, *Lagodon rhomboides*, which had been manipulated in one of three ways: the removal of spiny fins, stuffed with otoliths of various sizes and shapes, or chosen for different sizes. In addition, small, nontoxic colored glass beads were placed in fish fed out to allow the speed of pellet production to be estimated. Pellets were collected each morning and later dissolved in the lab where their contents are being analyzed.

RESULTS OF THE 2009 SURVEY FOR INLAND HERON COLONIES IN NEW JERSEY  
AND SURVEY PLANS FOR 2011.  
Christina Kisiel. Endangered and Nongame Species. NJ Div. of Fish and Wildlife.

The New Jersey Division of Fish and Wildlife's Endangered and Nongame Program (ENSP) lacked for inland night-heron colonies (the marsh colonies have been surveyed on a regular basis since the 1970s) in the state and began an effort in 2009 to rectify this data gap. The survey began as a pilot project, focusing on the northeastern part of the state, with colonies from other locations being included on a limited basis. Nine (9) volunteers were recruited from

listservs and volunteer databases (2 ENSP staff members also completed surveys). ENSP sent out a request to listservs and NGO's for information on colonies previously unknown to the state and this netted 9 new colonies. This new information, combined with ENSP database colonies, led to 30 sites being identified for surveys. Survey methodology was as follows: each site was to be visited 3 times- once in April/May to confirm that the colony was active and count adults, once in June to confirm that the colony was successful and count adults/young and once post-breeding season in November (after leaf fall) to count nests that would otherwise be obscured by foliage. Sixteen (16) of the 30 inland night-heron colonies (53%) identified for observation and 8 of the 14 surveyors (43%) returned data after surveying. Of the 16 surveyed colonies, 9 were active (56%). There were a total of 27 adults counted, 12 adults were observed on nests, 17 nests were counted and 25 juveniles were observed. In 2011, ENSP plans to do an aerial survey of the coastal marsh islands and to expand the inland night-heron survey statewide (with a greater utilization of staff since it was difficult to get volunteers to return data). This will mark the first time that both surveys are conducted in the same year, allowing for the most accurate data possible.

GREAT EGRETS: BIRDS OF NORTH AMERICA ACCOUNT NO. 570: TEN YEARS  
LATER.

Donald A McCrimmon, Cazenovia College, Cazenovia NY 13035.

First published in 2001 as No. 570 in *The Birds of North America*, the species account for the Great Egret (*Ardea alba*) has been updated and expanded, with a new total of 276 references, 59 of which are additions – a 27% increase. Publication in early 2011 is anticipated. Numerous additions to the body of knowledge relate to food habitats, including microhabitat for foraging, food capture techniques, and nutrition and energetic (18 publications). Likewise, a diverse literature has been added dealing with conservation (20). Lesser numbers of papers describe population changes (4), but there is a suggestion of a northern latitudinal expansion of the breeding range. In Florida, however, the status of the population in the Everglades is less certain: substantial, long-term increases in the number of nesting Great Egrets may not occur as a result of the ongoing restoration program, in that short-term disruptions of recent ecological conditions associated with removal of many internal Everglades levees may cause disruptions in Great Egret nesting abundance and distribution. In 2001, DNA hybridization work suggested Great Egret more closely related to *Ardea* and *Bubulcus* than to *Egretta*. These results have been confirmed by mitochondrial RNA studies, which also show a link to Night-Herons (*Nycticorax* and *Nyctanassa*).

## HARBOR HERON CITIZEN SCIENCE PROJECT – UPDATE 2008-2010.

**Kristin Mylecraine Munafo**<sup>1</sup>, Elizabeth Ng<sup>1</sup>, Tom Smith<sup>1</sup>, Kate Ruskin<sup>1</sup>, Kim Mendillo<sup>1</sup>, Susan Elbin<sup>2</sup>, John Rowden<sup>2</sup>, Joe O’Sullivan<sup>2</sup>, and Nellie Tsipoura<sup>1</sup>.

1: New Jersey Audubon, and 2: New York City Audubon.

‘Harbor Herons’, herons, egrets, and ibises nesting on islands in the NY/NJ Harbor have been hailed as signs of improved environmental quality and biodiversity in the Harbor Bight region. Using citizen science effort, New Jersey Audubon Society (NJAS) and New York City Audubon (NYCA) are working together to monitor populations of these species and to investigate their use of foraging habitat within the urban/suburban matrix of this metropolitan region. Our specific objectives are to

- (1) determine the abundance and distribution of harbor herons at various NY and NJ sites used for feeding, and relate abundance to habitat, tide, and site factors;
- (2) examine foraging behaviors, and
- (3) mobilize, train and coordinate Citizen Scientists. In 2008, 42 NJAS volunteers surveyed 31 sites; in 2009, 31 NJAS and 13 NYCA volunteers surveyed 39 sites; and in 2010, 20 NJAS and 18 NYCA volunteers surveyed 34 sites. In total, 9,633 observations of harbor herons were made from 2008 to 2010, with Great Egrets and Snowy Egrets most commonly observed. In New Jersey, the Meadowlands region had a higher average number of harbor herons per visit than any other region. In New York, the highest numbers per visit were recorded at sites in Brooklyn and Jamaica Bay.

## A BANDING STUDY OF COMMON TERNS ON PETTIT ISLAND, NJ: PRELIMINARY RESULTS.

**Brian Palestis** and Kaitlin Eppinger. Department of Biological Sciences, Wagner College, Staten Island, NY.

Pettit Island, in the Manahawkin Bay section of Barnegat Bay in New Jersey, is the site of a well-studied Common Tern (*Sterna hirundo*) colony. The number of terns nesting on this saltmarsh island is typically around 200 breeding pairs, but has recently fluctuated, reaching a low of 125 in 2008 and a high of approximately 300 in 2010. Since 1996 nearly 1600 chicks have been banded at Pettit Island, but adults were banded only occasionally and banding effort for chicks varied from year to year. Recoveries of dead fledglings during fall migration have been reported from the south, as expected, but also from the north and west within New Jersey. One tern banded as a chick was captured as an adult by researchers in Brazil. In 2010 we trapped 51 adult terns at Pettit Island. None of these represented returns of individuals banded on the island: 50 were unbanded and one had been banded in Argentina. Of 96 adults trapped since 1996, only one tern had been previously banded at Pettit Island. There are other breeding colonies of Common Terns in Barnegat Bay, and these results suggest that terns frequently move between sites. Trapping and banding efforts will be expanded to include other islands in 2011 and beyond.

## PLANS FOR WATERBIRDS ON RANDALL'S ISLAND FOR 2011.

Victoria Ruzicka. New York City Parks and Recreation.

Randall's Island contains ~9 acres of restored wetlands (5 acres of salt marsh and 4 acres of freshwater emergent wetland). The park is located a short distance from North and South Brother Island, islands used by nesting wading birds. The wetlands on Randall's Island provide excellent foraging grounds for nesting wading birds from these Islands. Great egrets, yellow and black crowned night herons, great blue herons, and cormorants are often spotted feeding or resting within the wetlands. Beginning in 2011, the RISF will begin monitoring the wetland sites and the Bronx Kill for wading birds. This monitoring will include point counts and strike surveys. In addition to monitoring and maintaining the wetlands, RISF also runs a Wetlands Stewardship Program that educates school children from the surrounding community about nature using the wetlands as its natural classroom.

## NEW YORK CITY PARKS RESTORATION STATUS REPORT FOR PRALL'S ISLAND.

Alexander Summers. Project Associate. City of New York Parks and Recreation.  
Natural Resources Group.

Prall's Island is a 79 acre island located in the Arthur Kill between Staten Island and New Jersey. Historically formed and comprised of dredged material from the Arthur Kill the island has evolved to support successful nesting colonies of Great Egrets (*Ardea alba*), Snowy Egrets (*Egretta thula*), Yellow-crowned Night Herons (*Nyctanassa violacea*), and Black-crowned Night Herons (*Nycticorax nycticorax*). Environmental impacts such as oil spills, exotic invasive species, and Asian Longhorned-beetles are believed to have contributed to the decrease in populations of herons nesting on the island by reducing available habitat. In an effort to restore nesting habitat, the current populations of the exotic invasive Tree-of-Heaven (*Ailanthus altissima*) are being targeted to be removed. Data collected over a ten year period suggests that herons are selective about the habitat they choose to nest in. Using the parameters of the data collected of known nesting conditions as guidelines, distinct areas of the island will be selected to plant native indigenous species of hybrid oaks with corresponding heights and structure to heron nesting preferences in order to provide suitable, sustainable habitat for future nesting, and to increase the quality of the island's habitat and ecology as a whole.

## PREDATOR/PREY INTERACTIONS IN CONTAMINATED ENVIRONMENTS.

Judith Weis. Rutgers University.

We have investigated predator/prey behavior in several common estuarine species living in contaminated areas in the NY/NJ Harbor and compared their trophic interactions with counterparts in relatively uncontaminated Tuckerton. Killifish (*Fundulus heteroclitus*) from Piles Creek, a tributary of the Arthur Kill, are poor at capturing grass shrimp, and eat much sediment and detritus, which is not nutritious. They have poor predator avoidance with blue crabs, are less abundant and smaller than at the reference site. Their poor diet and higher susceptibility to predation can account for their reduced life span and growth. Blue crabs



(*Callinectes sapidus*) from the Hackensack have reduced prey capture ability for active prey like juvenile blue crabs and killifish, but capture equal amounts of mussels or fiddler crabs. Field-collected crabs had much sediment, detritus, and algae in their stomachs. Hackensack juveniles were more aggressive than those from Tuckerton and were less likely to be eaten by adults (although aggression was not the reason for this). Adults, despite their poor diet, were larger than those from the reference site. Top down effects – a fishery advisory - may allow them to live longer. Bluefish (*Pomatomus saltatrix*) spawn in the ocean and move into estuaries – some of which are contaminated – for their first summer. By the fall, young-of-the-year that lived in Hackensack for the summer were considerably smaller than those from Tuckerton, and most of them were found with empty stomachs. Fish collected in the spring from Tuckerton that were fed diets of prey (mummichogs and menhaden) from Hackensack developed a reduced appetite and reduced activity after a few months, compared to those fed the same species from Tuckerton. Hg and PCBs biomagnified from prey to predator. These findings have worrisome implications for birds that prey on blue crabs and small fishes.

#### CONTAMINANT LEVELS IN HERRING GULL EGGS FROM NY HARBOUR AND THE GREAT LAKES

**Chip Weseloh**, Canadian Wildlife Service, 4905 Dufferin St., Toronto, ON M3H 5T4  
Susan Elbin, New York City Audubon, 71 W. 23rd St., Suite 1523, New York, NY 10010  
Dave Moore, Canadian Wildlife Service, Box 5050, Burlington, ON L7R 4A6

The Canadian Wildlife Service (CWS) has monitored contaminant levels in Herring Gull (HERG) eggs on the Great Lakes since 1974. Eggs are collected annually at 15 sites from throughout the Great Lakes. From 1974-1985, all eggs were analyzed individually (N=195 eggs/year). Since 1986, a small amount of material has been taken from each egg and made into a site “pool” and each pool was analyzed (N=15). In 2009, HERG eggs were collected at Swinburne Island (SI) and analyzed with the CWS Great Lakes collections. The goal of this study was to see how contaminant levels in HERG eggs from NY Harbour compared to those from the Great Lakes. The eggs were analyzed for 21 organochlorine compounds, 62 PCB congeners and 46 BDE (brominated diphenyl ether) congeners. All sites were ranked, greatest to least concentration, for each compound. Eggs from SI ranked among the 6 most contaminated sites for tetrachlorobenzenes (1.5 ppb), Sum BDEs (461 ng/g), TCMP (4.7 ppb) and TCDD (3.64 pg/g); it was the most contaminated site for dieldrin (0.108 ppm). SI ranked among the 5 least contaminated sites for DDE (0.232 ppm), HE (7.4 ppb), Sum PCBs (1.94 ppm) and Sum OCs (0.417 ppm); it was the least contaminated site for mirex (0.004 ppm), Hg (0.278 ppm), HCB (3.8 ppb), non-ortho PCBs (448 pg/g) and Penta CB (0.8 ppb).

## ROOSTING HABITS AND POST-FLEDGING DISPERSAL OF JUVENILE GREAT EGRETS FROM THE LOWER GREAT LAKES

**Chip Weseloh**, Dave Moore, Linda McLaren, Tyler Hoar, Dave Andrews  
Canadian Wildlife Service, 4905 Dufferin St., Toronto, Ontario.

In 2010, 118 juvenile Great Egrets (GREGs) were banded and marked with numbered orange wing-tags at three sites in southern Ontario. The project was advertised widely on birding listservs; its goals were: 1) to track the dispersal of egrets from their natal colonies, 2) to locate and monitor occupancy of post-breeding roosting sites to examine aggregations of egrets for markers and 3) to identify wintering areas of Great Lakes GREGs. We made/received 126 reports of 38 different wing-tagged GREGs (32.2% of tagged individuals were re-sighted) during July-October. The number of sightings per individual ranged from 1 – xx. Egrets remained in specific areas from 1 – x days. Most reports came from southern Ontario with a few from western New York, Ohio, Michigan and Wisconsin. There was very little northward post-breeding dispersal. Eleven roosting sites were discovered/observed during 2000-2009 and 17 others were found or brought to our attention during 2010. All roosts examined (N=16) were in or adjacent to water in live or dead trees, bushes or on mud. Roosts varied in size from 2 – 300+ individuals.

There have been only a few reports of our egrets during the November-early March period. Most reports came from coastal Carolinas, Florida and the Caribbean.

FILES OF THE PRESENTATIONS CAN BE FOUND ONLINE AT:

<http://www.nps.gov/gate/naturescience/harbor-herons-and-colonial-waterbirds-annual-symposium.htm>

## BIOGRAPHIES

(Alphabetically arranged by last name)

### **Kate Boicourt**

Kate Boicourt began the position of Restoration Coordinator of the NY-NJ Harbor Estuary Program in September, 2010. Through this position, she is working to coordinate and advance restoration and public access activities throughout the harbor estuary, with a particular focus on those within the goals of the Comprehensive Restoration Plan. Prior to coming to HEP, Kate has worked on climate change adaptation issues for the State of Maryland, estuarine ecology and science communication for NOAA/UMD, and on a number of field studies. Kate holds an MS from the Yale School of Forestry and Environmental Science, where she studied the success and effects of *Phragmites australis* removal, and a BA from Kenyon College in Biology. (12/2010)

### **Hugh Carola**

Hugh Carola is the program director at Hackensack Riverkeeper, Inc. (HRI), a position he has held since 2001. A U.S. Coast Guard-licensed Master of Inland Waterways, Hugh coordinates the organization's Eco-Programs which provide hands-on and on-water environmental education to over 5,000 people annually. Since 2002, Hugh has conducted over 1,200 Eco-Cruises aboard the 28-foot K/V *Robert H. Boyle* for colleagues, students and groups of all descriptions on the Hackensack River and through the saltmarshes of the New Jersey Meadowlands. Hugh also serves as HRI's wordsmith, writing the majority of the organization's press releases, official correspondence and newsletter articles. He sits on the Advisory Council of the Alliance for New Jersey Environmental Education (ANJEE), and serves as vice-chair of the organization's annual Conference Committee. He also represents HRI at the Northeast Watershed Alliance and the Bergen County (NJ)-based Nature Program Cooperative. (12/10)

### **Charles Clarkson**

Charles Clarkson obtained his B.S. from Mary Washington College in Fredericksburg, Virginia. During his undergraduate career, Charles became interested in Ornithology and assisted in research involving sexual selection in relation to song in the Gray Catbird (*Dumetella carolinensis*). Charles received his Master's of Biology from Virginia Commonwealth University in Richmond, Virginia, where he continued his research in the area of bird song as a sexually selected trait with the Prothonotary Warbler (*Protonotaria citrea*) as his focal species. While attending VCU, Charles performed extensive owl surveying in the commonwealth area as part of an independent research project utilizing Barred Owls (*Strix varia*) as indicators of parkland health.

Following the completion of his Master's degree, Charles worked for 2 ½ years as the supervising technician for a Red-cockaded Woodpecker (*Picoides borealis*) conservation project on Camp Lejeune Marine Corps base in Jacksonville, NC. Charles is currently working towards a Ph.D. at the University of Virginia where his dissertation research involves determining the utility of waterbirds as bioindicators through the aggregation of small-scale measurements and individual attributes to represent large-scale processes.

**Elizabeth Craig**

Elizabeth Craig is a graduate student in Zoology and Wildlife Conservation at Cornell University's College of Veterinary Medicine. She received her undergraduate degree from Columbia University's program in Ecology, Evolution and Environmental Biology, where she conducted research on the impacts of Double-crested Cormorants (*Phalacrocorax auritus*) and other colonial waterbirds on their nesting environment and understory community. Elizabeth later worked as the Program Assistant for Wildlife Trust's New York Bioscape Initiative and as a Research Associate at New York City Audubon. She is continuing her research of New York Harbor colonial waterbirds, focusing on foraging ecology and reproductive success. Elizabeth continues to serve as New York City Audubon's Harbor Herons nesting survey leader. (Rev. 12/2010)

**Susan Elbin**

Susan Elbin, PhD., Director of Conservation and Science at New York City Audubon. Susan has been involved in bird conservation for 25 years and has worked in and around Jamaica Bay for the past ten years. She is the Co-chair of the Harbor Herons sub-committee of the EPA's Harbor Estuary Program and is the co-author of the Harbor Estuary Program's Harbor Herons Conservation Plan. Susan has been active in Partners in Flight and the NE Bird Monitoring Network. Susan is the current Vice-chair of the Ornithological Council and chair of the Waterbird Society Membership Committee. Elbin was appointed by the mayor to serve on the Environmental Advisory Committee for her town of Parsippany, NJ. (1/2011)

**Mike Feller**

Mike is the Chief Naturalist for the City of NY Parks & Recreation, Natural Resources Group. He has a degree in Anthropology from SUNY, Albany and has done graduate work in Archaeology, Ethnobotany, and Cultural Ecology. This is his 26th year at Parks performing and supervising natural resources inventory, protection, management, restoration, interpretation, and policy formation throughout New York City.

**Richard Flamio**

Richard Flamio is currently a junior at Eastchester High School. He is studying double-crested cormorants in Barnegat Bay, New Jersey for an Advanced Science Research project. He enjoys working with his mentor, Colin Grubel, and has learned a great deal from him. Based on this experience, Richard is currently aspiring to double major in Biology and Marine Biology in college. He would like to thank all of his family and friends for their support and looks forward to researching around the world in the future. (12/2010)

**George Frame**

George W. Frame is a biologist in the Division Natural Resources at Gateway National Recreation Area, where he has worked for more than ten years. Before coming to the US National Park Service, he worked in African national parks where he specialized in conserving wildlife through sustainable economic development in rural communities. He received a B.Sc. (biological sciences) at the University of Alaska, an M.Sc. (wildlife science) in the Cooperative Wildlife Research Unit at Utah State University, a Ph.D. (wildlife ecology) in the Ecology Center at Utah State University, and a NATO post-doctoral fellowship in tropical forest

conservation. He spent his childhood in the saltmarshes of southern New Jersey, and is at Gateway NRA because of his saltmarsh interests. (Rev. 1/2010)

### **Laura Francoeur**

Laura Francoeur is the Chief Wildlife Biologist with The Port Authority of New York and New Jersey, Aviation Wildlife Programs. She is responsible for developing and administering the airports' wildlife management programs at John F. Kennedy International, LaGuardia, Newark Liberty International, Stewart International, and Teterboro Airport. Prior to coming to JFK, Laura worked for USDA-Wildlife Services in Virginia conducting wildlife hazard assessments at several airports and landfills. Laura's work focuses on wildlife damage management, especially wildlife hazard management at airports. Laura received her B.A. degree in zoology from Connecticut College and her M.S. degree in wildlife biology from Clemson University. She is an FAA qualified Airport Biologist and is a steering committee member of Bird Strike Committee USA. (12/2010)

### **Colin Grubel**

Colin Grubel is a Brooklyn native studying the city's Double-crested Cormorant population. He received a BA in Biology from Alfred University and went on to be a zookeeper in Binghamton, NY and Atlanta, GA before returning to NY where he is currently working towards a PhD at the CUNY Graduate Center and is based in Queens College. (12/2010)

### **Christina Kisiel**

Christina Kisiel is a Senior Environmental Specialist with the New Jersey Division of Fish and Wildlife's Endangered and Nongame Species Program, where she has worked since 2002. Her responsibilities include beach nesting birds, colonial waterbirds, and secretive marsh birds. She received her master's degree from Rutgers University in 2009, where her research focused on the piping plover. (12/2010)

### **Kristin Mylecraine**

Kristin Mylecraine is currently a Research Associate for New Jersey Audubon Society. She works on a variety of Citizen Science and other research projects, with a focus on grassland birds, Harbor Herons and urban wetlands. She received a M.S. and Ph.D. in Ecology and Evolution at Rutgers University, and served as a postdoctoral researcher at Ohio State University. She has worked for the New Jersey Forest Service, Ohio Division of Wildlife and New Jersey Audubon Society.

### **Brian Palestis**

Brian Palestis is an Associate Professor of Biology at Wagner College and Chair of the Department of Biological Sciences. He earned his Ph.D. in Ecology and Evolution from Rutgers University in 2000 and has studied the behavior and ecology of common terns since 1996.

### **Don Riepe**

Don Riepe has been the NY Chapter Director of the American Littoral Society for the past 25 years and has been designated as "Jamaica Bay Guardian" by NYSDEC. He recently retired from the National Park Service where he worked as a naturalist and manager of the Jamaica Bay Wildlife Refuge in NYC. Don has written many articles on natural history

subjects and his photographs have been published in many journals including *Scientific American*, *National Wildlife*, *Audubon*, *Defenders*, *Underwater Naturalist*, *Parade* and *The New York Times*. He has an M.S. in Natural Resources Management from the University of New Hampshire and has taught a course in Wildlife Management at St. John's University. Currently, he serves as a board member for NYC Audubon and the Rockaway Waterfront Alliance.

### **John Rowden**

Dr. John Rowden has a long-standing passion for birds that has led him around the world in pursuit of research and conservation. He received his Ph.D. in Zoology from Duke University studying the evolution of display behavior in a group of Australian parrots. After graduate school he joined the curatorial staff of the Wildlife Conservation Society, working both at the Bronx and Central Park Zoos, where he led field research on the behavior and conservation of pheasants in Southeast Asia and flamingos in Latin America and served as an Adjunct Professor at Columbia University. After a stint as Curator of the Auckland Zoo in New Zealand, he worked as a senior researcher for the New Zealand Kiwi Foundation where he focused on using scientific research to develop more effective strategies to ensure that people and birds could share the local landscape. As Manager of Citizen Science, Rowden works to involve more New Yorkers in the conservation of the birds populating our urban landscape.

### **Nellie Tsipoura**

Department at New Jersey Audubon Society, coordinating volunteer surveys of shorebirds during spring and fall migration, and landbirds in various New Jersey habitats, including grasslands managed through state and federal landowner incentive programs. She is also the primary investigator of NJAS research on avian communities and contaminant levels in birds in the New Jersey Meadowlands District, and recently completed a report on a two-year avian point count survey and another on metal contaminant levels on marsh birds. Finally last spring she spearheaded a foraging heron and egret survey in the NJ side of the NY/NJ Harbor using citizen scientist effort.

She earned a Ph.D. from Rutgers University for work on ecophysiological and hormonal aspects of wintering and migration in shorebirds. She has over 20 years experience doing research on bird populations, including consulting work for NJ DEP with shorebirds in Delaware Bay, consulting work for the WCS with grassland birds in New York, and work for National Audubon Society on the Western Hemisphere Shorebird Reserve Network during its early stages.

### **Judith Weis**

Judith Weis is a Professor of Biological Sciences at Rutgers University, Newark. She received her bachelor's degree from Cornell University, and MS and PhD from New York University. Her research focuses on estuarine ecology and ecotoxicology, and she has published over 200 refereed papers, as well as a book on Salt Marshes published in August 2009. She is interested in stresses in estuaries (including pollution, invasive species, and parasites), and their effects on organisms, populations and communities. Much of her research has been focused on estuaries in the NY/NJ Harbor area. She serves on the editorial board for *BioScience*, is one of the editors of the on-line *Encyclopedia of Earth*, and was for ten years an Associate Editor of the *Bulletin of Environmental Contamination and Toxicology*. She is a Fellow of the American Association for the Advancement of Science (AAAS), was a Congressional Science Fellow with

the U.S. Senate Environment and Public Works Committee, and was a Fulbright Senior Specialist in Indonesia in 2006. She has been on numerous advisory committees for USEPA, NOAA and the National Research Council and is currently chair of the Science Advisory Board of the NJ Department of Environmental Protection. She was the Chair of the Biology Section of AAAS, served on the boards of the Society of Environmental Toxicology and Chemistry (SETAC), the Association for Women in Science (AWIS), and the American Institute of Biological Sciences (AIBS), of which she was the President in 2001. (Rev. 12/2010)

### **Chip Weseloh**

Chip Weseloh is a wildlife biologist for the Canadian Wildlife Service (CWS) - Ontario Region. He has worked on colonial waterbirds for 40 years. He did a M.Sc. at Michigan Technological University on the effects of heron droppings on plant distribution within a breeding colony. For his Ph.D., he studied the urban ecology of gulls at Calgary, Alberta, where he individually colour-marked over 2500 Ring-billed Gulls. Prior to starting work with CWS, he was Curator of Ornithology at the Provincial Museum of Alberta in Edmonton, 1976-1977. Chip began work for CWS in 1978 in Toronto and has been at the same job ever since. He directs two major long-term avian monitoring projects on the Great Lakes: The Herring Gull Egg Contaminants Monitoring project – a 35 year old annual surveillance project for contaminants and their effects in gulls - and the Canadian portion of the Great Lakes Binational Colonial Waterbird Census - a 33 year old decadal monitoring program that censuses all waterbird colonies on the Great Lakes. Both projects have been underway since the early 1970s. For the last 10 years he has been colour-banding 6 species of cormorants gulls, terns, herons and egrets on the Great Lakes. Chip is also an active birdwatcher, a co-founder and current co-editor of the Ontario Field Ornithologist. (Rev. 12/2010)

### **Kate Yard**

Kate Yard is a Fish and Wildlife Technician with NYS Dept. of Environmental Conservation. She joined the DEC in November 2010 to coordinate the final year of a statewide pilot study of the National Marshbird Monitoring Program. Kate received a M.S. in Conservation Biology from Antioch University New England in 2010 and a B.S. in Wildlife Biology from the University of Montana in 2004. (1/2011)

Rev. 1/21/2011