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LightHawk's monthly update, WayPoint, was created to highlight the impact of our work. Each edition covers one specific flight, or series of flights, and illustrates how LightHawk advances conservation efforts throughout North and Central America through the unique perspective of flight. We hope you enjoy WayPoint and will share with others our success stories from above.

A Tale of Two Waterbirds and One LightHawk



A Great Egret here followed by a blackbird. Photo: Brett Cole/Oregon Wild

At LightHawk, we have a special place in our hearts for birds. Birds provide inspiration and a model for the human pursuit of flight. Our name recognizes the important role they play in our efforts to champion environmental protection through the unique perspective of flight.

Birds are also sentinel species: their abundance and health foretell trends in the environment to which we are otherwise blind. This summer, LightHawk volunteer pilots Pat Andrews and Mike McNamara teamed up, respectively, with Maine Audubon and New York City Audubon to provide flights for two different waterbird species. These iconic birds live in vastly different habitats, and the health of both species is an indicator of the surrounding ecosystem. By protecting the birds, we protect many other species.

Two Different Worlds

The thrilling call of the Common Loon is inseparable from the idea of a North Woods experience. For many people, loons signify wilderness. With their sleek appearance and charming habit of carrying recently hatched young on their back in the water, is it any wonder that loon images grace everything from coffee mugs to non-profit logos? For scientists with Maine Audubon and the Maine Department of Inland Fisheries and Wildlife, the loon in the wild is a barometer measuring the effects of climate change, mercury and lead contamination in lakes, and land lost to development. When Audubon staff were concerned about loon population decline they turned to LightHawk.

From deep in the Maine woods, travel about as far away from quiet backroads and into civilization as you can imagine - the wetlands of greater New York City. Unlikely as it may seem, Great Egrets - one of the species that spurred bird protection as we know it when they were hunted close to extinction early in the last century for their cascading breeding plumage - have been making a comeback in New York Harbor. They've captured the hearts and minds of resilient New Yorkers and are a flagship of urban



New York City Audubon's Liz Craig holds a Great Egret chick that has been outfitted with a transmitter labeled AP. This bird's signal was heard at its South Brother nesting colony until July 6, 2009. Photo: New York City Audubon



The loon counting flight required coordinated flights over the many small and large lakes scattered throughout northern Maine that could provide habitat for loons. *Photo: Susan Gallo/Maine*

Audubon/LightHawk



The Meadowlands District, very important habitat for local bird populations, centers around the Hackensack River, seen above. The area includes many wetlands, but is in the midst of a highly-developed in New Jersey, all within five miles from Manhattan (seen above on the horizon). *Photo: New York City*
Audubon/LightHawk



Volunteer Pilot Pat Andrews prepping his plane for the nine hours of flight over two days in support of efforts by Maine Audubon and Maine Department of Inland Fisheries and Wildlife.

biodiversity. But they live in a delicate balance with ever expanding industry and human populations impinging on their hard-won habitat. Audubon scientists have also turned to LightHawk, hoping to better understand how these birds use this dense urban landscape.

Two Aerial Surveys

It had been 12 years since the last aerial survey counted loons in Maine. Research indicating lower chick productivity since then was raising concern about the actual population of loons in the region. The only way to find and count loons in densely forested northern Maine is in the late summer, via costly flights over every likely lake in the water-studded Maine woods. State of Maine resources were limited, so in partnership with state biologists, Maine Audubon requested flight support from LightHawk.

The LightHawk-Audubon team flew half the northern lakes in three segments over two days with the state team flying the remaining half. Volunteer pilot Pat Andrews characterized the missions as “some of the most intense and exciting flying I’ve done in years.” Each team used slightly different methodologies to assess how best to approach future surveys. While official reports are pending, the LightHawk flights identified 73 birds on 44 lakes.

New York City and New Jersey Audubon scientists worked with LightHawk for over a year to identify methods for radio tracking egret chicks in the busy airspace above the wetlands throughout greater New York harbors. Access by foot and boat to the intricate wetland systems was limited and the easy movement of the chicks as they matured and starting flying and foraging across wider areas make ground tracking challenging.

This summer, radio transmitters were attached to nine chicks. Normally, with highly mobile species like egrets, chicks are located using an antenna mounted on the strut of a high-wing plane, but FAA approval for mounting such equipment has become difficult. At the suggestion of LightHawk Program Manager Kelley Tucker, the Audubon team experimented with a hand-held antenna inside the plane cabin. Early in the first of three flights, the young bird seen above was the first signal to be clearly picked up and tracked. Others followed, adding to scientists understanding of the niche these birds have found in this dense urban environment.

“In a few hours, we covered an area that would have taken days on the ground. The flight shed new light on how these birds use their colonies during the breeding season and prior to migration, and will be invaluable for local stakeholders as they guide development in this busy and highly valued region.”
Kate Ruskin, NYC Audubon, Research Technician

Continued surveys, over time, will get researchers closer to answering the most stubborn questions about how these magnificent bird species flourish in their diverse habitats.

LightHawk will continue to support the work of Maine and New York City Audubon and other effective, solution-oriented groups as they work to protect birds and their habitats in our wild places and in our most populated backyards. In the end, as we protect them, we protect ourselves.

About LightHawk

What started in 1979 with one man and a vision has grown to over 170 volunteer pilots flying missions across the U.S., into Canada, through Mexico and down to Panama. Today, LightHawk is the oldest and largest nonprofit, volunteer pilot-based organization flying environmental missions in collaboration with hundreds of partner organizations.

At LightHawk we believe the view from the window of a small airplane provides a powerful and effective platform for research, groundtruthing, environmental awareness, and education.

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