NORTHEAST HAWK WATCH

11th Regional Hawk Migration Conference

"We All Count"

Holyoke Community College, Holyoke, MA

Saturday March 30, 2019

Join us for the best "hawk talks" in town!

Abstracts:

To Brazil and Back: Broad-winged Hawk Migration Ecology and Conservation.
Dr. Laurie Goodrich, Director of Long-Term Monitoring, Hawk Mountain Sanctuary
Since 2014, Hawk Mountain has been studying Broad-winged Hawks during nesting, migration and winter. In this talk, we will share some of the results from tracking 12 female Broad-winged Hawks nesting in Pennsylvania throughout their life cycle from 2014 through 2018. We will discuss migration patterns, migration speed and distances, stopover behavior, wintering areas and implications for long-term conservation of the species. As time permits, we will also discuss breeding home range and habitat use. In 2018 through 2020, Hawk Mountain hopes to tag Broadwings from northern states to more fully understand migration connectivity across the breeding range but needs to find sponsors for the transmitters. We are also starting to tag male Broadwings to examine if they are showing similar migration and wintering patterns.

Dispersal Timing, Migration Routes, and Overwinter Site Fidelity of Breeding Female Peregrine Falcons from New Hampshire.
Chris Martin, Senior Raptor Biologist, New Hampshire Audubon
Beginning in 2013, New Hampshire Audubon partnered with colleagues at Biodiversity Research Institute and Stantec Consulting to capture 5 free-flying adult female Peregrines in New Hampshire, and fit them with 9 to 12-gram solar-powered satellite transmitters. In addition to documenting individual home ranges during breeding season, transmitters allowed us to follow birds' movements throughout their annual cycles. We currently have 4 adult falcons instrumented, the longest has been 'on the air' for more than 4 ½ years. We discuss capture methods and dispersal patterns, including 1) strong fidelity to individual winter territories, 2) multiple return trips within a given season to breeding territories, 3) unexpected Fall dispersal northward to Quebec, and 4) a shift to an adjacent breeding territory.

Urban Raptors, Our Wild Neighbors: Behavioral Ecology of Birds of Prey in Cities.
Dr. Cheryl Dykstra, Independent Researcher, Raptor Environmental
If there is a single unifying characteristic of urban/suburban raptors, it is adaptability. Species that can be urban are adaptable in one way or another, and this flexibility has resulted in great diversity in the ways birds adjust their behaviors to use urban spaces and cohabit with people. Urban raptors use a wide variety of habitats, ranging from the almost completely urban areas used by Peregrine Falcons (Falco peregrinus) to industrial areas, urban green

spaces, and low-density residential housing interspersed with pockets of native vegetation. Some urban raptor species choose novel nest sites in cities, such as billboards, window ledges, and rooftops, while others nest in planted, nonnative trees, and still others use native tree species that differ little from the trees used in rural, natural areas. Foraging behaviors of urban raptors are equally diverse. Some, like Barn Owls that specialize on rats, take advantage of urban pests. Cooper's Hawks (Accipiter cooperii) and other bird-hunters benefit from increased prey availability, especially at bird feeders, while scavengers such as Black Kites (Milvus migrans) frequent urban rubbish dumps. Generalists such as Red-shouldered Hawks (Buteo lineatus) and others successfully find the same prey species taken by their rural counterparts. Some behaviors of urban raptors can generate conflict with their human neighbors. For example, urban Swainson's Hawks (Buteo swainsoni), Red-shouldered Hawks, and Cooper's Hawks are less fearful of humans than are rural birds and their nest-defense behaviors sometimes include swooping at or striking pedestrians. Other behaviors that sometimes cause conflict include nests in undesirable locations, the potential for collisions with aircraft and vehicles, and prey remains left in places visible to humans. The diversity of behaviors of the different species may be expected to lead to further adaptations to urban landscapes.

Journeys: Ospreys, Technology, and an Author.
Dr. Rob Bierregaard, Research Associate, Academy of Nat. Sciences, Drexel Univ.
Between 2000 and 2017 Rob Bierregaard and his colleagues placed GPS satellite transmitters on 47 adult and 61 juvenile Ospreys from South Carolina to the Avalon Peninsula in Newfoundland, Canada.
During the 18 years Rob and his team studied Osprey migration, the technology went through three major upgrades. With each advance in the technology, new questions about Osprey migration and ecology could be answered. Rob will describe how each of the technological innovations helped us understand more and more of the mysteries of how Ospreys navigate from their nesting territories to South American wintering waters often more than 4,000 miles from their nests, what goes on around the nest during the breeding season, and how young Ospreys work their way into the breeding population.
In 2013 someone suggested that Rob write a kids' book about his favorite Osprey. Five years later, Belle's Journey, a middle-school chapter book, was published by Charlesbridge. In the last part of the program Rob will describe his own journey as a first-time children's book author.

Latest Raptor Population Index (RPI) Analyses Reveal Interesting and Concerning Patterns in Recent Migration Counts.
Dr. David Oleyar, Senior Scientist, Hawk Watch International and Dr. Laurie Goodrich (Laurie will present the program)
The Raptor Population Index (RPI) is a collaborative effort to analyze and synthesize migration data from raptor watchsites across North America. Sites must meet certain criteria in order to be included in RPI analyses, namely 10 or more years of monitoring in a standardized way with a consistent daily and seasonal effort. The 2016 RPI analyses include data from 62 count sites and reveal that in the past 10 years there are disproportionately more declines in the east than in any other region and disproportionately more increases in the west (overall counts for all migrating raptor species). This pattern disappears when looking at longer term (20 and 30 year) trends.

The Importance of Hawk Counts to Our Understanding of Raptor Migration.
Trudy Battaly and Drew Panko, *NEHW Hawk Migration Report* Editor and Columnist
Hawk Counters all over the NorthEast count hawks and submit their data to hawkcount.org. The numbers they submit for each day combine with the data from other sites to provide a collective database that enables us to recognize and understand some of what is happening with hawk migration. Analyzing the data can generate trends for our raptor species, but it is up to us to decide what those trends mean. Do changes in migration numbers represent declining populations, or are they a response to some other ecological or environmental change? NEHW has declining trends for several species, including three of our most historically prevalent species - Broad-winged Hawk, Sharp-shinned Hawk, and American Kestrel. Can our data help us decide if these populations are in jeopardy? Can the data detect shifts in flyways or response to climate change? This presentation will consider these questions and emphasize the importance of data collection to our understanding of raptor conservation.

"The Wanderer": A Brief Look at the Life History of the Northern Saw-whet Owl From All Seasons of Banding Returns . . . More Questions than Answers.
Larry Fischer, Independent Researcher
Twenty-five years of banding Saw-whet owls in Western CT. I will look at banding techniques for saw-whet owls in the Fall, Winter, Spring, and Summer seasons. I will discuss banding returns and what they suggest about the life history in Southern New England for this, our smallest forest owl.

Opposing influences of Mercury contamination and anadromous fish restoration on Maine's Bald Eagle population.
Chris DeSorbo, BRI
Bald Eagle populations have a long and well-known history of population decline and subsequent recovery throughout the U.S. For example, the Bald Eagle population in Maine, a stronghold for New England, has exceeded population management goals, reaching 733 pairs in 2018. In this presentation, we use recent research to review two prominent factors that have opposing forces on Bald Eagle populations in New England: mercury contamination and diadromous fishery restoration. We discuss some of the factors influencing mercury exposure in New England Bald Eagle populations, using Maine and New York populations as examples. We discuss the current state of knowledge about Hg impacts on birds, mercury risk to New England Bald Eagle populations, monitoring efforts, and recent policy developments. In contrast to mercury, some factors, such as the restoration of anadromous fisheries, are having a positive impact on some Bald Eagle populations in New England. We outline fish restoration efforts at two Maine rivers, and discuss the role that these rivers play in supporting local and regional populations. Lastly, we discuss current efforts to use Bald Eagle activity at anadromous fish runs to promote stewardship and broader conservation efforts.

A Kettle of One – Following the Broad-winged Hawk Migration on a Bicycle.
Eric Masterson, Land Program Coordinator, Harris Center for Conservation Education
Eric will give a presentation on his journey along the route taken by New England Broad-winged Hawks, first by bicycle from New Hampshire to Panama during the 2016-2017 migration season, and currently working on a repeat performance by hang glider.