Councilor 2007 Thomas LeBlanc (replacing DavidHauber)

Councilors 2009 Anthony Hill (1st term)
William Hobbs (1st term)
Mary Doscher (2nd term)
Ted Hicks (1st term)

Publication & Membership: ***Elaine Mease*** reported that there are 11 new members this year putting our membership at about 337, which is down considerably from 25 years ago, when we had over 600 members.

Memorial Grant Committee: ***Elizabeth Brooks*** reported that nine applications were submitted of which the following two were selected:

"Influence of an ecological barrier on directional decisions on nocturnal migrants" submitted by ***Kristen Covino*** of the University of Maine.

"Estimating the demographic consequences of wetland fragmentation: movement and survival patterns in a threatened salt marsh bird" submitted by ***Jason Hill*** of the University of Connecticut.

Net Committee: ***Gale Smith*** reported that the net committee now has three other members: Bob Yunick, Dave Hauber, and Don Mease. Last year we sold $19,800 in nets. Gale also noted that credit card sales are now available.

NABC Delegate Report: ***Mary Doscher*** stated that the banding council will be meeting next week in Arizona.

Bander Certification: ***Betsy Brooks*** and ***Bob Yunick*** reported that two banders and three trainers have been certified this year. (Six trainers participated in the process.) In total, 25 banders and five trainers have been certified on behalf of EBBA.

Emblem Committee: ***Tom LeBlanc*** reported that the council has accepted a new emblem. A by-law change is required. Prior to the next meeting, a proposed amendment will be sent to all members so that the change may be voted on next year.

Strategic Planning Committee: ***Betsy Brooks*** stated that a Strategic Planning Committee exists but a chairperson is needed.

ABSTRACTS OF PAPERS AND WORKSHOPS PRESENTED AT EBBA's 24-26 MAR 2006 MEETING

"The Value of Diverse Avian Monitoring Techniques Abstracts"

"The Visible Night Migration of Birds Observed from the Empire State Building 2004-2005" — **Robert DeCandido**, PhD Research Associate Scientist, Hawk Mountain Sanctuary, Kempton, PA.

Most people in the developed world live in a city, yet today scientists do not frequently study urban parks and the birds found there. In the past in New York City, urban naturalists compiled extensive historical records about bird species and the relative number of migrants and residents. This makes it possible for contemporary scientists to look at long-term changes in the city's avifauna, and possibly determine why changes have occurred. For example, at one time at least 15 warbler species bred in New York City. Peregrine Falcons rarely nested here. During the last decade, we have had the opportunity to study nesting warblers, Peregrines and other raptors. Some of these are new residents in New York City, while others have increased significantly in abundance. In this slide talk, we will show some of the positive and negative changes in bird species diversity in New York during the last century. Also, in 2004-2005, we have been studying the night migration of birds from the Observation Deck of the Empire State Building. We counted over 30,000 migrants—with a high count of 15,000+ migrants in autumn 2005. On one evening, we saw birds passing at the rate of one migrant every four seconds. We also observed Peregrine Falcons regularly chasing and capturing migrants from August through mid-November, but rarely in spring. We occasionally observed nocturnal raptors (owls) and even one diurnal species (Osprey) in migration at night. Skyscrapers and other tall buildings are suspected of indirectly killing many hundreds of night migrating birds in New York City and other metropolitan areas. Our results indicate this is not the case in New York City. Rather, the observation deck of the Empire

State Building offers a magnificent opportunity to observe night migration directly. We will trace what is known about the history of birds colliding with illuminated buildings in New York City since the late 19th century to the present. And we will make recommendations for (a) how to make skyscrapers even safer for night migrating birds, and (b) how to use the observation deck as an outdoor classroom to study nocturnal migration.

***"The Stopover Ecology and Energetics of Neotropical Migrant Passerines in an Urban Park"*— Chad Seewagen,** Wildlife Conservation Society, Bronx Zoo Department of Ornithology, 2300 Southern Boulevard, Bronx, NY10460

Due to the overlap of the Atlantic Flyway with one of the most urbanized regions of the continent, the habitats remaining within cities are playing an undoubtedly important role in bird migration. Yet, it is currently unknown whether such habitats are able to provide migrants with the resources they critically need. Urban habitats have the potential to be valuable stopover sites that facilitate migration but they also have the potential to be detrimental energy sinks. It is currently unknown in which way these areas are affecting migrants.The Wildlife Conservation Society recently began an evaluation of its own urban park, the Bronx Zoo, as a migratory bird stopover site. By examining visible subcutaneous fat, rate of body mass change, lipid mass, and carbon isotope signatures in breath samples, we are assessing the energetic condition of the migratory passerines in this urban habitat.The data gathered to date suggest that the birds are in excellent energetic con-dition and urban habitats have the potential to be high quality stopover sites. These findings highlight the importance of conserving and properly man-aging the remaining green spaces in urban areas situated along migratory bird flyways.

***"Movements of an Expanding Population of Brown Pelicans: Where Chesapeake Bay Banded Individuals Spend Their Winters"*— David F. Brinker,** Maryland Natural Heritage Program, Maryland DNR, 1200 Frederick Rd., Catonsville, MD 21228

Brown Pelicans *(Pelecanus occidentalis)* first nested in the mid-Atlantic during 1987. Breeding expanded into the middle portions of the Chesapeake Bay (Smith Island archipelago) in 1992. Population growth has been strong and rapid since 1999, with over 2,000 pairs now breeding in the mid-Atlantic each summer. Banding was initiated with the first successful breeding attempt in Maryland during 1987. Over 95% of Maryland chick production and a significant proportion of that in the mid-Chesapeake Bay were marked. Through 2005 a total of 11,618 Brown Pelican chicks were banded. To increase recoveries and facilitate documentation of natal sources during further breeding expansion, colored leg bands were applied to 1,578 individuals. Banded individuals have reached Maine, Bermuda, Cuba, other Caribbean Islands and Central America. Despite notable recoveries of recently fledged chicks to the north, there is no significant northward movement of post fledging juveniles. Movements are primarily southward with most juveniles reaching North Carolina in November and Florida-Cuba in December. The mid-Atlantic breeding population does not winter along the Gulf coast west of Florida. Wintering individuals are becoming more frequent in the lower Chesapeake Bay and North Carolina. Mature birds are returning to breed near their natal colonies. Mid-Atlantic Brown Pelicans are the most migratory of Atlantic coast Brown Pelican populations.

***"The Influence of Salinity on Nestling Provisioning and Growth in Bald Eagles in the Lower Chesapeake Bay"*— A. Catherine Markham**, and **Bryan D. Watts**, Center for Conservation Biology, College of William and Mary, Willilamsburg, VA.

For Bald Eagles *(Haliaeetus leucocephalus)* nesting in the lower Chesapeake Bay, shoreline areas surrounding low saline waters currently support higher breeding densities and have experienced faster rates of population recovery compared to areas surrounding higher saline waters.This finding has broad implications for eagle management throughout the region, yet the ecological underpinnings of these patterns have not been investigated. We examined the influence of salinity (tidal-fresh vs. mesohaline) on nestling provisioning and growth during the 2002-2004 breeding seasons. We assessed provisioning patterns using video-monitoring systems that recorded nest activity during the nestling's

maximum growth phase. Videotapes were reviewed to determine rates of delivered prey items, biomass, and energy. We quantified chick growth by weighing nestlings twice during expected maximum growth and fitting these data to a growth model to produce estimates of maximum growth rate, asymptotic weight, and the time interval between 10% and 90% of growth. We found that patterns of nestling provisioning and growth were influenced by salinity. In general, provisioning rates were higher in mesohaline compared to tidal-fresh salinity zones, and nestlings along mesohaline reaches grew at faster rates and achieved greater asymptotic weight compared to nestlings in tidal-fresh reaches. These findings suggest that Bald Eagles nesting along mesohaline reaches are more successful at meeting the energetic demands of brood-rearing compared to pairs nesting along tidal-fresh reaches. Compared to previous investigations in other Bald Eagle breeding populations, indices of energy delivery and growth rates were higher in our study, likely reflecting higher habitat quality in the lower Chesapeake Bay.

***"A Summary of the Year 2000 Pennsylvania Breeding Survey of Northern Saw-whet Owl (Aegolius acadicus), Otherwise Known as "Project Toot Route"*—Douglas A. Gross**, Ecology III, Inc., 804 Salem Boulevard, Berwick, PA 18603

The Northern Saw-whet Owl has been one of Pennsylvania's mystery birds, classified as a Candidate - Undetermined by the Pennsylvania Biological Survey (Ornithological Technical Committee) for several years. The Pennsylvania Breeding Bird Atlas added considerably to knowledge of the breeding range of this species, but many questions remained. Project Toot Route conducted in the spring and early summer of the year 2000 adds more quantitative data on the saw-whet's breeding population.

***"Crown Color Variation in Relation to Wing Length, Age, Sex, Season, and Migration Timing in Transient White-throated Sparrows"*—Adrienne J. Leppold, Robert S. Mulvihill, and Robert C. Leberman**, Carnegie Museum of Natural History, Powdermill Avian Research Center, Rector, PA.

In alternate (i.e., spring or breeding) plumage, White-throated Sparrows of both sexes occur as one of two distinct, genetically correlated crown color variants, the so-called "White Stripe" (WS) and "Tan Stripe" (TS) morphs. A high degree of disassortative mating with respect to crown morph perpetuates this polymorphism—nearly all breeding pairs are mixed morph, and these produce roughly equal numbers of young WS and TS males and females. Among breeding pairs, however, WS males x TS females outnumber TS males x WS females by at least 2:1. The differential disappearance of WS females and TS males between fledging and breeding is enigmatic. We studied 5,357 spring and fall migrant White-throated Sparrows banded from 1985-1998 in the mountains of southwestern Pennsylvania. Among spring migrants, birds identified as WS males outnumbered WS females in a ratio similar to that observed in breeding populations. Furthermore, the proportion of WS birds was significantly greater in spring for ASY (after second year) males compared to SY (second year) males, indicating differential survival favoring this morph-sex combination; there was no significant difference for a small sample of (known-age females. Within a sex, there was a positive relationship between wing length and frequency of occurrence of the WS morph at both seasons. This raises the possibility that differences in survival favoring WS males and TS females may be related to advantages of larger size in males and smaller size in females. WS birds migrated earlier in the spring due to earlier migration of males; morph types migrated together in fall notwithstanding slightly later migration by males.

***"Broad-Front Migration + Low Cloud Ceiling + Hilly Terrain = Migration Channeling"* — William R. Evans**, Old Bird, Inc. Ithaca, NY 14850

The broad-front concept of nocturnal songbird migration in North America appears to have come together in the mid-20th century from Lowery's moon-watching studies. Radar observations strengthened the notion and today NEXRAD weather radar stations regularly reveal simultaneous migration over wide, 1000+-km, areas. This may be true for regions with predominantly flat terrain. But in hilly or montane areas, there are conceptual grounds and some evidence that the

flight density of nocturnal songbird migration can be greatly modified by variation in terrain altitude. This paper presents flight call data from a transect of acoustic monitoring stations in west-central New York that indicate complex channeling of nocturnal songbird migration in hilly terrain during low cloud ceiling conditions. This dynamic is potentially an important factor to consider in evaluating daily banding totals at stations in montane regions. A big day in the nets may not always be due to a big night in the sky.

"New Methods, Preliminary Results, and Future Plans for Integrating Bioacoustics and Banding in Migration Monitoring Studies at Powdermill Avian Research Center in Western Pennsylvania"—Michael Lanzone, Carnegie Museum of Natural History, Powdermill Avian Research Center, Rector, PA; ***Andrew Farnsworth,*** Department of Ecology and Evolutionary Biology, Cornell Universitry, Ithaca, NY; ***Emma DeLeon,*** Department of Biology, University of Pittsburgh, Pittsburgh, PA; and ***Andrea Lindsay,*** Carnegie Museum of Natural History, Powdermill Avian Research Center, Rector, PA.

First, we report on a novel method for recording inter- and intra-specific variation in nocturnal flight call notes from birds briefly held in captivity following banding. We used this method to collect over 15,000 recordings for more than 2,000 individuals of 45 species of passerines in just two migration seasons. Calls we recorded were spectrographically similar to calls recorded from free-flying birds of the same species. In just two seasons, we were able to record previously undocumented flight calls, verify call notes previously assigned to species based solely on inferential evidence, and, importantly, amassed data sufficient for a rigorous assessment of inter- and intra-specific patterns of variation in note structure. Quantifying these sources of variation holds great promise for improving the precision, accuracy, and efficiency of computer programs developed for automatically processing and analyzing large sound files collected by microphones set to record continuously throughout nocturnal migration periods. This, in turn, will enable more efficient integration of bioacoustical data into migration monitoring efforts. In 2004 and 2005, we collected digital recordings of flight calls emitted by nocturnal migrants for 10-12 hours per night on 345 nights using a directional microphone setup mounted on a 35-foot pole located just outside the Powdermill Bird Banding Laboratory (elev. 1300 ft). Concurrently, we collected data using a similar microphone/computer setup atop a ridge (elev. 2700 ft) just northeast of the banding station. We recorded from as few as 10 to as many as 20,000 calls per night. We present preliminary analyses of contemporaneous acoustical data collected on five different nights at these two microphone setups in fall 2005; additionally we compared patterns of species occurrence and relative abundance in the acoustical data with banding data obtained over the course of several days before and after the nights for which we analyzed acoustical data. Simultaneous collection of banding and acoustical data will continue at Powdermill as part of an integrated program of migration monitoring.

"Clear and Reflective Sheet Glass: An Invisible Lethal Hazard for Birds" **— Daniel Klem, Jr.,** Department of Biology, Muhlenberg College, Allentown, PA 18104-5586

Billions of birds are estimated to be killed striking sheef (plate) glass throughout the year and worldwide. Fatal strikes have been recorded wherever birds and glass mutually occur, in urban, suburban, and rural environments, and at panes that range in size from tiny garage windows to walls of glass covering entire multistory buildings. Drawing on decades of bird-glass accounts, an overview of existing knowledge and an update of current experiments will be presented. Recent advances include educational progress from national and international media coverage, and collaboration between members of the building industry (architects, glass manufacturers and allied industries) and environmentalists (government agencies, conservation groups, scientists) that include the establishment of a Bird Safe Glass Working Group (BSGWG) whose mission is to mitigate and ideally eliminate glass as an unintended human-related source of avian mortality.

***"Coordinated Bird Banding in New Jersey"*— Larry Niles** (Larry.Niles@dep.state,nj.us), NJ ENSP; **Nellie Tsipoura** (nellie.tsipoura@a njaudubon.org),NJAS; **AmandDey** (Amanda. Dey @dep.state.nj.us), ENSP; and **David Mizrahi** (dmizrahi@njaudubon.org), NJAS.

New Jersey's Endangered and Nongame Species Program (ENSP) and New Jersey Audubon Society (NJAS) are spearheading a statewide banding effort to monitor population changes and dispersal in a wide range of species through a network of volunteer banders. We will follow a model similar to the British Trust for Ornithology to increase the number of people involved in banding by reducing the need for specific research objectives while still maintaining a rigorous standard of training and reporting. We anticipate that results of these efforts will be to improve the usefulness of the information because of increased species coverage and returns. It will also provide a more accessible means for the conservation public to increase their understanding and enjoyment of nature through an activity that adds information to our system for conservation purposes. As a first step, we are looking to recruit new people to banding and for ways to direct them to existing projects where master banders can mentor them. However, a recent meeting with NJ banders, whose numbers have dropped in the last 20 years, suggests the need to look outside the state for banding mentors. Long term, we envision that new banders and existing non-active banders will pursue banding without specific individual projects in mind, by incorporating their work into a NJAS/E statewide banding effort coordinated through the citizen science program.

***"Monitoring Avian Productivity and Survivorship (MAPS) Program and Avian Flu Sampling"*— Danielle Kaschube**, Email: dkaschube @birdpop.org

The Institute for Bird Populations (IBP) organizes several large scale volunteer based banding monitoring programs, including the Monitoring Avian Productivity and Survivorship (MAPS) program, the Moniterio de Sobrevencia (MoSI) program, and the Monitoring Avian Winter Survival (MAWS) program. Banders participating in these programs collect data and contribute them to a centralized database where demographic data can be extracted and analyzed on a large geographic scale.

In the past, IBP has been asked to help facilitate aspects of data collection for research projects for other scientists. The MAPS network is particularly attractive to scientists looking for specific avian data because of the spread of MAPS stations throughout the continent. One of the largest of these cooperative projects is the Neotropical Migrant Conservation Genetics Project at the UCLA Center for Tropical Research. Banders are asked to pull two tail feathers from each bird from which DNA is extracted. The genetic markers are then used to identify the geographic locations of the wintering grounds of breeding populations.

Because of the success of this cooperative effort, IBP has been asked for assistance in an avian flu research program. We request the participation of as many MAPS contributors, and other banders, as possible in collecting cloacal swab samples. This new program looks to map the occurrence and distribution of avian influenza variants that occur in North American landbirds. Of these flus, a few are known to infect humans, and even fewer have the ability to become highly pathogenic and spark a pandemic. The project is designed to help us understand inter-specific transmission, resolve migration connectivity pathways, and develop more effective vaccines.

***"A Bander's Guide to Printed Literature on Species, Age and Sex Determination"*—Robert P. Yunick**, 1527 Myron St., Schenectady, NY 12309

This workshop will deal primarily with field guides and other identification guides useful to banders for passerine and near-passerine identification in the hand. The first section will deal with useful guides from Peterson to Pyle to Sibley and more. That will be followed by literature on molt, an understanding of which is so critical to accurate age determination. Finally, guides specializing in identification of species age and sex of particular families, such as warblers, hummers, sparrows and others will be reviewed.

***"Population Trends of Migratory Raptors in Northeastern North America"*—Christopher J. Farmer**, Hawk Mountain Sanctuary, Acopian Center for Conservation Learning, Kempton, PA.

The Raptor Population Index (RPI) is a joint project undertaken by Hawk Mountain Sanctuary, the Hawk Migration Association of North America, and Hawkwatch International to produce indices of abundance and population trends for raptors using migration counts. In the project's first regional analysis, I developed indices and trend estimates from migration counts at six watchsites in northeastern North America for 12 raptor species. The six watchsites—Lighthouse Point, CT; Cape May Point, NJ; Montclair Hawkwatch Lookout, NJ; Hawk Mountain Sanctuary, PA; Wagoner's Gap, PA; and Holiday Beach, ON— comprise a transect of important flight corridors from the Atlantic coast to the central Great Lakes region and count nearly 200,000 migrating raptors annually. From 1974 to 2004, population indices of Ospreys, Bald and Golden eagles, Cooper's Hawks, Merlins, and Peregrine Falcons generally increased at the watchsites. Conversely, indices of Sharp-shinned Hawks, Broad-winged Hawks, Red-tailed Hawks, and American Kestrels decreased. Northern Harriers and Red-shouldered Hawks decreased trends at inland sites, but were stable or positive near the Atlantic coast. Some raptor species are also monitored by the Breeding Bird Survey (BBS), but migration counts monitor more species and produce estimates of trends that are generally more precise than BBS. In the near future, the RPI partnership will analyze counts from additional watchsites throughout North America. This information will be used along with BBS and other surveys in an effort to assess the conservation status of migratory raptors on a regional and continental scale.

***"Migrating South With the Hawks: Radiotracking Migrants South Along Kittatinny Ridge"*—Laurie Goodrich**, Senior Monitoring Biologist, Hawk Mountain Sanctuary Association, Acopian Center for Conservation Learning, Kempton, PA.

Long-term conservation of migratory raptors depends, in part, on an understanding of habitat use and migration patterns of birds 'en route.' In 2003 and 2004, Hawk Mountain researchers radio-tracked 48 Sharp-shinned and Cooper's hawks on their migration journey through Pennsylvania and into states to the south. The purpose of the research was to understand more about roosting and foraging habitats, as well as general migration patterns and behavior. Hawks were trapped by banders from Little Gap Raptor Research, located north of Allentown on the Kittatinny Ridge, and followed for one to 12 days during their migration. Researchers followed the birds using vehicles and airplanes. Hawk watchers from several Kittatinny Ridge watch sites were given radio receivers to assist with the radio-tracking or relocating lost birds. In this presentation, a general overview of the research, the preliminary results, and the conservation implications will be presented.

Broad-winged Hawk by George West