



# *Inland Regional News*

*Inland Bird Banding Association*

*Founded 1922*

## **Inland Bird Banding Association 2022 Annual Meeting**

The 100th Anniversary of the Inland Bird Banding Association took place 28-30 October 2022 at Energy Harbor Nuclear Corp., Davis-Besse Nuclear Station in Oak Harbor, Ohio.

The Friday evening portion included a wonderful short film by Christy Frank entitled “Ploverville”, and a presentation by Mark Shieldcastle about the research in and around Black Swamp Bird Observatory (BSBO). Saturday’s events included a banding session at BSBO, several academic presentations in the afternoon as well as the IBBA General Meeting and banquet later that evening. The Saturday evening was capped off by an excellent keynote presentation given by Dr. Auriel Fournier entitled “Secrets in the Marsh: Rails, Bitterns, and Gallinules”.

We would like to thank all of those who helped put together the meeting especially Kim Kaufmann (Executive Director at BSBO), and Mark Shieldcastle (Director of Research). They did a fine job navigating the logistics of event planning to provide the attendees with a very nice 100th anniversary event.

### **Abstracts of Saturday’s Presentations**

#### **Swallows in a concrete cave: an evolving banding project, *David Cimprich***

Coming up with your own banding project can be daunting. I will trace the development and progress of a study of Cave Swallows as a means of illustrating the following principles that may be useful to consider when creating or refining

a banding project of your own. (1) It is easiest to study birds that are accessible and reasonably abundant. (2) To get ideas, read (and re-read) relevant literature, especially, Peter Pyle’s *Guide* and Cornell’s *Birds of the World*. (3) Anything about which Pyle wrote, “more study is needed” is a project opportunity. (4) A study should address a question that you can express in a few sentences. (5) Studies addressing narrow, limited questions are often the most feasible. (6) Move ahead despite uncertainties. (7) Be alert for interesting or unexpected observations, which may lead to new questions. (8) Exploring (i.e., collecting observations that do not relate to your study question) can lead to new questions. (9) Periodically summarizing preliminary results helps you evaluate progress and decide how best to focus future efforts. I became interested in banding Cave Swallows after learning of a nesting colony in a nearby culvert on a property where I already had permission to band. It was an exciting opportunity to band a new species, but I wanted to be able to learn something new about the birds by doing it. After reading in Pyle’s *Guide* that the color of the distal marginal coverts might be a useful age character, I decided to investigate this possibility as the focus of my project. I thought it would be possible to band both adults and nestlings at this site. Any recaptured birds that I had banded as adults in previous years would be known age ASY. Any that I had banded the year before as nestlings would be known age SY. I could photograph and compare the coverts of these groups to learn whether they differed. However, I was unsure how difficult it would be to capture and recapture adults. Furthermore, I did not know whether those hatched in the culvert would return

there to breed and thus be available for recapture. So far, my most effective capture method uses a small net (1.5 m long and two panels high) set in the dimly lit interior of the culvert. To deploy this net, I had to come up with a means to support it in the confined, concrete-floored space. To date, I am progressing toward answering the original question, but the project will not end there. I have noticed another potential character for determining age. Additionally, I have found that I can capture adult swallows right up to the time they commence fall migration. These present new opportunities for further research that I am pursuing.

**Preliminary results from automated radio telemetry and the Motus Wildlife Tracking System for five species of thrushes at Warner Parks, Nashville Tennessee,** *Laura L. Cook, Sandy Bivens and Kathy Shaw*

Five species of radio-tagged thrushes spent significantly more time within Warner Parks in Nashville, Tennessee, than previously known from 40 years of banding records. Based on radio-tagging data, the average fall stopover duration for migratory Gray-cheeked Thrush was 10 days (n = 11, range 2 - 23 days), Swainson's Thrush was 6 days (n = 16, range 1 - 15 days), and Veery was 2 days (n = 1). Spring stopover for these migratory thrushes was shorter for Gray-cheeked Thrush averaging 7 days (n = 1), Swainson's Thrush 2 days (n = 4, range 1 - 3 days), and Veery 1 day (n = 1). Wintering Hermit Thrush spent on average 70 days (n = 5, range 21 - 171 days) within the Parks from November through April. Summer breeding Wood Thrush spent on average 61 days (n = 3, range 13 - 133 days) from May - October. To complement the 40-year's of banding at Warner Park Nature Center in Nashville, the Motus Wildlife Tracking System was launched in Warner Parks in 2020. The goal of this project is to better understand avian annual use of Warner Parks, a large 1255 ha park just 9 km from downtown Nashville. Two dual frequency receiver stations were installed within the Parks in July 2020 and October 2021, providing coverage across the southern boundary of the Parks. These five species of thrushes were selected to represent annual use of the Parks. At the Warner Parks Banding Station, automated radio telemetry has

invigorated our staff and volunteers to continue long-term banding efforts complemented with the Motus system.

**The use of Motus tracking system to investigate the migratory behavior of rails at local and regional scales,** *Chad A. Cremer, Mike Avara, Auriel M. V. Fournier and Mike P. Ward*

Little is known of the migratory connectivity and stopover ecology of the Sora and Virginia Rail, which are understudied secretive marsh birds. Much of the wetland habitat needed by these species has been lost in the Midwest and it is imperative that we identify important stopover areas. High-quality stopover sites are necessary during migration for birds to rest and refuel and are critical during spring when breeding success may be affected by the impacts of limited resources during migration. We evaluated spring migration connectivity and stopover ecology in Illinois and the Midwest more broadly. Our objectives are to evaluate the migratory timing, stopover duration, and factors affecting spring departures in Sora and Virginia Rails and document large-scale movements. During the spring of 2021 and 2022, a total of 332 rails were trapped and banded in central Illinois using walk-in confusion traps assisted by audio lures. Ninety eight Lotek Motus tags have been deployed using a modified leg loop harness. Daily activity patterns and departures were monitored with an array of 10 Motus towers surrounding the study area while large-scale movements are reported by the Motus Tracking Network.

**Preliminary results for Purple Martin post-fledgling movements and pre-migration behavior,** *Rachael Payton, Laura L. Cook, Sandy Bivens, Leah LaRocco, Anna Money, Kathy Shaw*

Purple Martin nestlings radio-tagged at 20 days of age at gourds in the Middle Tennessee were detected by a second receiver station 2 km away at 29 days of age (n = 10, range 25 - 33 days). In 2022, of the nestlings that successfully fledged and were detected by receiver stations in Middle Tennessee, 55% were confirmed roosting at a large downtown Nashville pre-migration roost. Post-fledgling foraging area exceed 70 km from the roost. Since 2001, Warner Park Nature Center has contributed

to the Purple Martin Conservation Association by monitoring and banding young at a Purple Martin gourd system at the nature center. Nest success information is critical to understanding population changes for this aerial insectivore, but we have learned little about post-fledgling behavior or survivorship from 22 years of banding efforts. In 2020, we launched a Motus Wildlife Tracking System with dual receiver stations installed in the Parks in July 2020 and October 2021 respectively. In 2021, at 20 days of age we attached Cellular Tracking Technology LifeTag transmitters using leg-loop harnesses to six Purple Martin nestlings at the nature center. In 2022, LifeTag and Hybrid LifeTag transmitters were attached to 24 martin nestlings at three locations to better understand their post-fledgling movement and roost use at a large pre-migratory roost in Nashville. Preliminary results indicate significant daily foraging movement in the Middle Tennessee area and some, but not all nestlings appear to use the large Nashville roost before departing south for the winter. This automated radio telemetry system has contributed significantly to our understanding of post-fledgling Purple Martin movement and roost behavior.

**Migratory vs. resident birds as vehicles for introducing lyme-causing *Borrelia burgdorferi* bacteria to the Lake Erie Islands, A. M. Rose and J. Marshall**

Lyme disease, whose symptoms are caused by the bacteria, *Borrelia burgdorferi*, is a common vector-borne disease in the Eastern United States transmitted by the tick vector, *Ixodes scapularis* (Eastern Black-legged Tick). Migratory birds have been shown to have an important role in acting as transport vehicles for the both the bacteria as well as its tick counterpart which allows it to spread to new geographical regions. However, it is unknown if the bacteria can be spread by migrants to more isolated island locations such as the Ohio Lake Erie Islands. Anecdotal evidence suggests that there is no viable *Ixodes scapularis* population on the islands currently; however, if there were to be an established population in the future then birds could be a pathway for Lyme-causing bacteria to reach mammalian vectors on the islands. To further

expand upon this gap in scientific knowledge, 248 blood samples from 19 passerine or near-passerine bird species were taken from four islands from both migrant and resident birds on the Lake Erie Island Archipelago (North Bass Island, Middle Bass Island, South Bass Island, and Gibraltar Island). Each sample was then processed in the lab to identify whether *Borrelia burgdorferi sensu lato* bacteria was present in the samples. Out of 248 samples, all results for the bacteria came back negative showing that there is no current evidence for resident or migrant bird species acting as transport vehicles for Lyme-causing bacteria. Filling in this knowledge gap and continuing to monitor *Borrelia burgdorferi* bacteria in migrant and resident birds on the islands is essential for identifying and predicting pathogen transmission in an environment that is both highly dynamic and subject to climate change.

**Midwest Migration Network- time for Implementation, Mark Shieldcastle**

The goal of the Banding and Ground Surveys Working Group of the Midwest Migration Network is to develop and implement a coordinated bird banding and ground survey program to answer regional questions about migration patterns and migratory landbird demographics across the Midwest.

To address goals, the Banding & Ground Surveys Working Group will lead (1) development, implementation, and administration of a long-term multi-level monitoring program for landbirds during migration, including training, (2) standardization of avian migration banding and point count data collection, (3) development of a network of collaborators and cooperators, (4) filling knowledge gaps in existing programs (e.g., MAPS and MoSI) to better inform full life cycle models for North American landbirds. Coordinated multi-level data collection will maximize both researcher participation and spatial coverage across the region. Data collection standardization is of utmost importance for long-term regional analyses but must be flexible to accurately characterize the variety of habitats across the Great Lakes/Upper Mississippi River Region.

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**What is new in the Bird Banding Lab? An overview of our accomplishments, current direction, and vision, Antonio Celis-Murillo, USGS Bird Banding Lab**

The USGS Bird Banding Laboratory (BBL) is an integrated scientific program established in 1920, for the collection, archiving, management, and dissemination of information from banded and marked birds in North America. Since then, we have been facilitating successful and effective bird management and conservation science. This brief presentation will provide an update of BBL's recent accomplishments and current BBL's direction to ensure that the BBL remains the premier national resource for bird banding and marking data in North America. Furthermore, I will provide an brief overview of our vision and the steps we are taking to make sure the BBL is recognized as a robust, integrated, scientific national resource that rapidly adapts to new science needs and technologies to facilitate successful and effective bird management and conservation science.

**Abstracts of Poster Presentations**

**Weather affects refueling performance and arrival condition in migratory songbirds in northwest Ohio, Andrea L. Crary, Mark C. Shieldcastle and Henry Streby**

Migratory songbirds must stop periodically during migration to replenish fat reserves. Their fat deposition efficiency on food availability and quality at stopover sites, and the rate at which they refuel can affect migration timing and events throughout their annual cycle. Songbirds face many threats from changing global climate, one of which is potential phonological mismatch of food availability and migration timing. Each species' flexibility in adapting to these changes will likely have an effect on their condition and refueling performance.

**Determination of gender in the Dark-eyed Junco utilizing morphological methods and molecular evidence, Kayla Ferron, Tony Rothering, Stacey Olson and Vern Kleen**

Many bird species do not display sexual dimorphism making it difficult to determine

sex in the field. With some species, various standardized metrics (i.e., wing chord length, tail length, etc.) are often used in conjunction with other morphological features to aid with gender identification. In some species, such as the Dark-eyed Junco, coloration patterns are quite variable within and between geographic regions. These morphological differences lead us to believe there could be additional regional variations, specifically wing chord length. We will compare the standardized metric with our regionally collected data to determine if there is a variation between the data sets. In tandem, we are also attempting to generate a molecular profile of each bird to determine gender. In addition to the standard field measurements, rectrix feathers (R1 and R6 from opposite sides) from non-sexually dimorphic birds (primarily Dark-eyed Junco) and sexually dimorphic birds (Northern Cardinal) were extracted. Genomic DNA will be isolated from the calamus of each feather. We will then generate a molecular profile utilizing a primer set that requires no secondary restriction digest and has been shown to quickly and accurately determine bird genders in many bird families. We will analyze the results of our PCR using standard agarose gel electrophoresis (3% low-melt agarose gel, SYBR green DNA stain). Our preliminary data suggests we have shown proof of concept in our lab. We anticipate being able to screen between 25-50 samples prior to the commencement of the 2022 IBBA annual meeting.

**Abundance of Eastern Black Rails in southeastern Colorado, Eleonora Hargett, Thomas J. Benson, Liza Rossi and Auriel M.V. Fournier**

Eastern Black Rails are notoriously cryptic and difficult to study. Their elusive nature makes population estimation difficult. Surveys rely heavily on acoustic observations and are largely aimed at occupancy estimation. Black Rail use of high salt marshes along the gulf and mid-Atlantic coast make them susceptible to habitat loss due to rising sea levels and urbanization. This habitat loss and observed population declines resulted in the species being federally listed as threatened in 2020. Due to the low detection probabilities and patchy

distribution along the coast, occupancy modeling is used to document presence and response to management. However, being able to estimate abundance would allow for a more complete understanding of the impacts of management on the species, especially in an area with high levels of occupancy, such as southeastern Colorado. This population provides a unique opportunity to test different abundance models with robust sample sizes. From 2019-2022, we conducted broadcast surveys at 98 locations across the Arkansas River Valley in southeastern Colorado. In addition, during the summer of 2022, we tested the efficacy of acoustic recording units to detect individual rails. Both in-person and remote surveys will be used to estimate abundance and compare model outputs. The results of this work will inform future recommendations on the best practices for estimating Eastern Black Rail abundance.

#### **World Bird Sanctuary spring migration study,** *Samantha Maschetts*

World Bird Sanctuary initiated a spring bird migration study in 2009 on approximately 16 ha of the 125 ha site at World Bird Sanctuary in St. Louis County, Missouri. The study area is an undeveloped area of the sanctuary in an oak and hickory dominated forest community divided by ephemeral streams. The site is located adjacent to the Meramec River Valley and is part of the Meramec Valley Important Bird Area. We are excited to continue to monitor this site during the spring migration to see how the bird populations continue to use this site.

#### **Minutes of IBBA's Board Meeting 28 October 2022, Oak Harbor, OH**

*Welcome & Roll Call* (Tetzlaff) – President Butch Tetzlaff welcomed attendees both in person and via video conference. Board members attending were Butch Tetzlaff (President), Dave Cimprich (Vice-President), Paula Cimprich, Mike Eickman (Treasurer), Bob Placier, and Mike Bishop. Also attending were Mark Shieldcastle (NABC).

*Secretary's Report* (Tetzlaff for Hutcheson/Gabrey) – Cathy Hutcheson has resigned her position as Board Member and Secretary after

25 years of service. We are grateful for her long-standing dedication to the IBBA. Steve Gabrey will replace her as of this meeting. The Secretary's Report for last year's meeting was accepted as printed in **NABB**. (Motion made to accept as read: Bob Placier; seconded by Mike Eickman; motion passed.)

*Treasurer's Report* (Eickman) – Income comprised membership dues (\$3665), annual meeting (\$655), silent auction (\$584), grant transfer from Stewart Fund (\$1000), **NABB** transfer from Life Fund (\$1791.46), and donations (\$320). Total Income and Transfers \$8015.46. Expenses comprised **NABB** (\$5428.01), IBBA website support (\$119.88), website set up paid to Amy Wilms (116.15), tax filing 990-N (\$19.90), Canadian check charge (\$5), postage (\$12), grant disbursements to Brandon Dunnahoo (\$619.05) and Colleen Crank (\$380.95), transfer of donated money to appropriate funds (IBBA Research, \$55; Stewart Fund, \$65; Life Fund, \$200). Total Expenses \$7021.60. Balance as of 9 Sep 2022: \$8726.82; Life Account \$6402.98; Stewart Fund \$12689.31; and IBBA Research Fund \$8103.95.

(Motion made to accept as read: Dave Cimprich, seconded by Bob Placier; motion passed.)

*Membership Report* (Eickman) – Regular members 128, Life members 67. Mike Eickman noted that PayPal is now available for membership renewals via the IBBA website.

*Grant Committee Report* (P. Cimprich) – There were two applications for the Paul Stewart Grant while the IBBA Research Grant received no applications. The committee found both applications worthy of funding, and because of the small amounts requested, it was decided to fund both. Brandon Dunnahoo received \$619.05 for a project entitled "Using satellite telemetry to fill knowledge gaps in the annual cycle of Chuck-will's-widows" and Colleen Crank received \$380.95 for her project entitled "Resident and wintering Song Sparrow populations at Litzsinger Road Ecology Center".

North American Banding Council (NABC) Report (Shieldcastle) – Mark gave an update about the topics covered at the most recent NABC meeting, which was in 2021, the first meeting since the

Covid shutdown. The passerine banding manual is being reviewed, and the hummingbird and raptor manuals are complete. Work continues on the owl and shrike manuals. He mentioned Piranga which is an online pictorial archive of many species of birds that is intended to be used to aid banders with aging and sexing birds. Eighty species are complete and 260 are partially finished. Lastly, NABC are looking into certifying banding stations such that if you complete banding training at a certified station, you would also be certified.

*Old Business:* No old business was brought before the Board.

*New Business:*

*Nominating Committee Report* (Tetzlaff for Tom Bartlett) – Lianne Kozur has served her term and is going off the Board. Nominations for Board Members are Bob Placier (2nd year), Roger Everhart (1st year) and Steve Gabrey to replace Kathy Hutcheson as secretary. The vote will take place at the General Meeting 29 Oct 2022.

*2023 IBBA Meeting Location.* The 2023 meeting location which will take place in Nashville, TN, on a date to be determined. Laura Cook is organizing the meeting. The 2024 meeting may be held in Minnesota; Roger Everhart will be asked if he is interested in hosting this meeting.

*Expense Consolidations* – Butch Tetzlaff asked if there is an appetite for any further consolidations among the IBBA, EBBA, and WBBA regarding financial aspects or otherwise given the current technological capabilities that exist. **NABB**, of course, has been consolidated for many years. Website and membership maintenance were two suggested ideas. It was agreed that we should look into the possibility of these and other potential consolidations in the future, if the other two organizations were interested in doing so. Tetzlaff will bring this topic up to the other organizations.

*IBBA Seminar Series* – Everyone agreed that the seminars were a valuable benefit to our organization and can be a service to our members as well as a marketing tool. They will remain open to the public. Mike Bishop agreed to continue hosting the events, but noted that he will be out of the country

for much of the spring and will need someone to fill in for him. If anyone has an interest in doing so, please contact Mike (bishop@alma.edu).

*Ontario Bird Banding Association (OBBA) and Canadian Migration Network (CMN)* – It was suggested that the OBBA and CMN could join IBBA, EBBA and WBBA in publishing **NABB**. It was agreed that if these two organizations were allowed to have regular space within **NABB**, then the division of total **NABB** costs should be divided into fifths instead of thirds. Tetzlaff will pursue this with EBBA and WBBA.

No further new business was brought before the Board.

Adjourn motion by Dave Cimprich; seconded by Bob Placier.

Meeting adjourned at 5:00 pm local time.

### **Minutes of the IBBA General Meeting, 29 October 2022, Oak Harbor, OH**

Welcome Message (Tetzlaff) – President Butch Tetzlaff opened the meeting by welcoming and thanking Kim Kaufmann and Mark Shieldcastle for their time and effort in producing their work in event planning.

*IBBA Reports* – Secretary, Treasurer, Membership and NABC reports were given (see above).

There were no old business

*New business* – The Nominating Committee Report was given and ballot for new officers was read (see above). The next IBBA meeting location will be in Nashville, TN, from 10-12 Nov 2023. Laura Cook is the primary contact. Vern Kleen took the podium to announce the retirement of Cathy Hutcheson from the Board as well announce her near 100,000th Ruby-throated Hummingbird banded. Motion made to accept all of the above as stated by Auriel Fournier; seconded by Cathy Hutcheson, motion approved.

Adjourn motion by Auriel Fournier; seconded by Cathy Hutcheson. Meeting adjourned.

Meeting addendum (Eickman) – Silent Auction receipts generated \$696.00.