

## **Best Practices in Collecting Specimens and Capturing Field Data**

Carla Cicero

WEDNESDAY, 12:00-2:00 pm, Summit 7 & 8

This is an opportunistic and challenging time for natural history collections. Advances in research methodologies (e.g., genomics, isotopes, CT scanning) as well as current digitization initiatives are creating unprecedented opportunities for addressing questions in evolutionary biology. At the same time, researchers are challenged with questions of what to collect and best practices for maximizing the value of specimens while recognizing collecting feasibility. In particular, collectors must recognize the trade-off between collecting more specimens with basic parts versus fewer specimens with a greater number and diversity of parts per specimen. Furthermore, collectors must envision the value and feasibility of preparing specimens in less traditional ways. These challenges in the field translate to museum databases, where collection management systems must have the structure and flexibility to accommodate new and emerging parts, attributes, and uses of specimens. Furthermore, systems should employ a standardized terminology on data values such as preparation type to facilitate discovery of specimens. This roundtable discussion will engage the ornithological collections community to discuss and develop sets of best practices that will guide future collecting and database efforts.

## **Second meeting of the R ornithologists: Discussing recent news, organization, and the future in R in Ornithology**

Matthew Boone

WEDNESDAY, 6-7:30 pm, Summit 7 & 8

R is a powerful open source tool for data management, statistical analysis and graphing that is widely used across ecology and within ornithology. With its ever-growing popularity, there is a need for collaboration and meeting of the people who are using and teaching the rapidly developing software program. We hosted our first meeting at AOS 2018 in Tucson. Many like-minded R users came together across very different backgrounds to discuss setting up an R organization within AOS, and how we might be able to address their needs. Since this meeting we have created an open group on Ornithology Exchange. This year's roundtable will continue discussing how to integrate this group into the Ornithology community and the possible structure of an integrated R teaching curriculum within AOS meetings. Anyone is welcome to the round table to learn more about the wide range of ways R can be used in ornithology and how they can be involved, learn more, and contribute to the future of this organization. We encourage people to bring their laptops to the meetings as well as bring any novel R projects they'd like to showcase.

## **USGS Bird Banding Lab: preparing for the next century of bird banding**

Antonio Celis-Murillo

WEDNESDAY, 6-9 pm, Summit 9&10

The USGS Bird Banding Laboratory (BBL) is an integrated scientific program established in 1920. It has supported the collection, archiving, management and dissemination of information from banded and marked birds in North America. These data have been critical for studying biological patterns and processes, such as population demographics, trends, morphology and physiology and spatial behaviors of resident and migratory bird populations. The resulting science has been used to inform management and conservation practices. Currently, the BBL is redesigning its data base management system, improving the banding and encounter data submission process, enhancing the curation, archiving and data request process, creating an electronic permitting process, among other major changes. These updates are being made with the goal of developing best practices, while supporting an increased volume of banding data produced by our banding community, a wider array of banding projects, and adapt to many new emerging technologies used in conjunction with the capture and banding of birds. The roundtable discussion is intended to introduce the changes planned by the USGS Bird Banding Lab as we position ourselves to support and advance the science that depends on the capture, banding and/or tagging of birds over the next century. Through the roundtable discussion we are seeking input from scientists that rely on capturing and marking birds to learn about their specific needs and ideas for the BBL in the near future. The facilitated discussion will be of interest to anyone capturing, tagging (banding, transmitters, geolocators, etc.) or collecting samples (e.g., blood, feather, tissue) from birds or using BBL data in analyses or mapping.

### **Eastern Grassland Full Annual Cycle Conservation Design**

Cara Joos

THURSDAY, 12:00-2:00 pm, Summit 4

This round table discussion will bring together experts on eastern grassland birds to explore approaches to full annual cycle research that can help to identify those stages of the annual cycle that are most limiting for grassland bird species. Given that populations of several species of conservation concern, such as Northern Bobwhite, Henslow's Sparrow, and Eastern Meadowlark, are largely centered on the central United States, we will facilitate a discussion centered on a project designed to collect habitat-associated demographic data such as adult and juvenile seasonal survival and fecundity at a flyway-scale.

### **Professional Ethics in the AOS and Ornithology**

Jeff Brawn

THURSDAY, 12:00-1:30 pm, Summit 9 & 10

This round table, hosted by the AOS Professional Ethics Committee and the AOS leadership, will provide interested members with information on the policies, procedures, and resources of the AOS regarding professional ethics. Specific issues available for discussion will include sexual misconduct, discrimination, and scientific misconduct. Attendees will be encouraged to provide feedback to the committee with the goal of the AOS better serving members and the science of ornithology.

### **Birds of North America (BNA): the latest and greatest in digital natural history**

Paul Rodewald

THURSDAY, 12:00-1:00 pm, Summit 11 & 12

Birds of North America (BNA) is the most comprehensive reference for the life histories of over 760 bird species that breed in the United States and Canada and the web's premiere resource for digital natural history. This round table aims to engage original and current BNA authors, as well as those interested in becoming involved in BNA. BNA staff will demonstrate recent advances in BNA species accounts, including new multimedia capabilities, and integration of data products. A discussion will follow with topics to include the process and timing of species account revisions and updates, contributions and authorship, community engagement, and suggestions for future developments.

### **If You Build It (or Don't), They Will Come: Leveraging Technology to Get Bird Studies into the 21st Century Classroom and Beyond**

Caitlin Welsh

THURSDAY, 12:15-1:00 pm, Summit 6

Since its development in 2012, the Motus Wildlife Tracking System (Motus) has steadily incorporated more and more collaborators into the research network that uses automated radio telemetry arrays to study the movements of migratory animals. Alongside development of the Motus Wildlife Tracking System and array expansion, Bird Studies Canada also began to explore how the science and technology could be integrated into educational curriculum. This round table will give any participants interested in discussing conservation education and engagement an opportunity to gain insight from the Motus migration education project. Participants will learn about the three-year content development and piloting process from facilitators' lessons learned while encountering logistical, financial, bureaucratic, and curricular snags, thus allowing participants see how the materials have been able to be adapted for application in schools, zoos, and museums. As the next phase of the project involves expansion of content for students at the secondary level, participants are invited to consider how such interdisciplinary content might be developed to reach older students that may consider a career in STEAM, as well as imagining other settings in which this content may be applied. By sharing these efforts with fellow researchers and educators, and welcoming perspectives on how to best reach diverse communities, this round table can help professionals in all branches of the field learn how different organizations have approached the challenge of communicating conservation in the 21st century.

### **USGS Bird Banding Permitting 101**

Antonio Celis-Murillo

THURSDAY, 6-7 pm, Summit 9 & 10

Following the Migratory Bird Treaty Act (MBTA) and its associated Federal regulations (16 U.S.C. 703-712), a Federal Bird Banding and Marking Permit is required to capture, handle and band and/or mark wild birds. The USGS Bird Banding Laboratory (BBL) is the federal agency responsible for issuing such permits, including master permits and sub-permits. This roundtable is intended to provide a short presentation of the current bird banding permitting process, and how relates to other federal permits, such as the Threatened and Endangered Species permit. Participants will be able to ask general or specific questions related to their banding permits. The facilitated discussion will be of interest to anyone capturing, tagging (banding, transmitters, geolocators, etc.) or collecting samples (e.g., blood, feather, tissue) from birds.

### **Juggling motherhood and ornithology: from incubation to nestlings to fledglings**

Susannah Lerman

FRIDAY, 12:00-1:45 pm, Summit 6

With the mantra “You can be what you can see,” visible role models for women during early career stages can address the unique challenges women face when juggling motherhood and career. Such role models have the potential to influence early career women’s perspectives on whether it is possible to have children and achieve success in their chosen scientific field. Women make up 50% or more of the student membership in the fields of ecology, behavior, and ornithology, yet fewer women are found in more senior positions in these fields. A “leaky pipeline” hits during the postdoctoral and early career stage, which also coincides with childbearing years. The lack of institutional support or role models might further perpetuate the leaky pipeline, whereby women at the postdoctoral and early career stage might feel as if they have little option but to choose between motherhood and science. Moms (and other primary caretakers) of dependent children have unique experiences that might present challenges for conducting fieldwork, participating in conferences, and engaging in other scientific activities outside the office and lab, all of which ultimately contribute to career advancement. From pregnancy, recovering from birth, and breastfeeding, to coordinating daycare and school activities, diverse and sustained responsibilities can make it more challenging to be scientifically productive. This can create a culture of inequity with mothers experiencing greater disadvantages during critical career stages because of biological and socially driven childcare demands, which further perpetuates the leaky pipeline. Based on feedback from young female ornithologists who have questioned whether they needed to choose between motherhood and science due to the lack of role models, this round table will highlight the unique experiences from a panel of 5-7 mom ornithologists at different career stages and who had children during different stages of their careers (e.g., grad school, postdoc, faculty/permanent position). This topic has generated initial interest from moms and dads, and we aim to provide space for sharing a diversity of perspectives. The round table builds upon the many recent AOS initiatives to increase diversity and inclusivity in the society and science in general (e.g., lactation rooms at conferences, providing travel grants for families, increasing the number of distinguished female speakers). This round table will increase visibility of mom ornithologists, highlight experiences and successful strategies, and send a message to early career scientists that if they choose, having a rewarding career while raising children is possible.