Avian Scientific Advisory Group

Presentation times are subject to minor adjustments; however, we will make every effort to adhere closely to the agenda.

Sunday, March 22nd

8:00-9:00 Welcome, ASAG updates and Ice Breaker

9:00-10:00 TAG Updates

1. *Struthioniformes*
2. *Penguins*
3. *Parrot*
4. *CP&P*
5. *GECO*
6. *Piciformes*
7. *Coraciiformes & Bucerotiformes*
8. *Raptor*
9. *Anseriformes*

Technology/Misc

10:00-10:15 “Sound the Trumpets! Expanding Ohio’s Trumpeter Swan and Wetland Education Initiative “Tiffany Mayo, Lead Hospital/Commissary Keeper at Cleveland Metroparks Zoo.

Once near extinction due to habitat loss and hunting, trumpeter swans have made a remarkable recovery thanks to extensive conservation efforts in North America, including Ohio. Despite this success, the species continues to face challenges throughout their range including a lack of public awareness about the threats to swans and their wetland habitats. To support public awareness of trumpeter swans and foster positive stewardship of their wetland habitats, Trumpeter Swan Conservation Education Kits were designed, produced and distributed by Cleveland Metroparks Zoo. The first phase of kits was distributed in 2025 and used as part of target public outreach and education programs at Cleveland Metroparks Zoo, Cleveland Metroparks Nature Centers, and Lake Erie Nature & Science Center. The components of the kits were designed to educate guests about trumpeter swans and the threats they face, foster a personal connection to this local native species, and inspire a desire to protect swans and their wetland habitats. Initial feedback on the kits was overwhelmingly positive, and the plan is to expand with two more kits in 2026.

10:15-10:45 “Penguin Lighting Needs” Linda Henry, LMH Penguin Consulting LLC

Light influences penguin visual perception, circadian and circannual rhythms, behavior, and health. In human care, artificial lighting must replace complex natural electromagnetic (EM) spectral inputs while also managing unintended or extraneous light sources. This presentation reviews biologically relevant lighting for penguins from ultraviolet (UV) through visible and infrared wavelengths, with emphasis on welfare and husbandry implications.

Penguins possess visual and non-visual photoreceptive systems adapted to aquatic and high-latitude environments that mediate photoperiodic entrainment, melatonin regulation, and seasonal physiology. UV exposure may contribute to visual perception and vitamin D physiology, although species-specific data are limited. Infrared wavelengths may influence thermal perception and behavior, but empirical evidence is sparse. Extraneous light sources may further affect circadian signaling and behavior.

Current knowledge gaps and research priorities for evidence-based lighting guidance are discussed.

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10:45-11:00 BREAK

11:00-11:15 "Updates from the Global Egg Data Management Working Group" Rachel Bladow, Senior Population Biologist with AZA Population Management Center at Lincoln Park Zoo

The Global Egg Data Management Working Group is developing standards for recording egg data to better manage egg-laying species. This presentation will briefly cover why this group was formed and what we have accomplished in the last year. We will share how to get involved or follow our group for updates as we create guidelines for egg records.

11:15-11:35 "Artificial Intelligence Takes Wing: Computer Vision to Automate Avian Behavioral Monitoring." Andrew Alba, Science Manager at Disney's Animals, Science and Environment (Disney's Animal Kingdom®)

Behavioral monitoring can answer important questions related to health, welfare, reproductive success, and social interactions in birds. However, live behavior observations present numerous challenges, including significant labor contributions, scheduling limitations, observer biases, and the possibility of observer presence influencing the birds' behaviors and/or reproductive success. Recent advances in artificial intelligence offer potential solutions to these challenges by using computer vision to automatically detect behavior from remotely captured video. At many facilities, existing camera infrastructure provides an opportunity to implement computer vision to monitor a variety of species. As with most emerging technologies, computer vision currently requires considerable upfront user skill and input. However, there is huge potential to implement it as a practical tool in the future with increased testing and advancement. We evaluated freely available computer vision tools using video footage of two different species with varied behavioral repertoires to assess their accuracy, ease-of-use, and versatility. Specifically, we used computer vision to detect nesting behaviors of blue-crowned laughingthrushes and to measure flock cohesion and socially facilitated behaviors of flamingos. In this presentation, we will discuss methods that can be used to automatically detect animals and their behaviors from video and provide an overview of the performance, feasibility, and pitfalls of currently available computer vision software."

11:35-11:55 "Lorikeet 2.0 - Everyone's Happy, Including USDA." Nikki Hartman and Allysia Hunter with Riverbanks Zoo and Garden.

Creating a great lorikeet experience takes more than just feeding cups—it's about balancing bird welfare, guest engagement, and smooth operations. This presentation will share updates from our program, including wellness-focused husbandry, purposeful guest interactions, and data-driven tools that help guide daily decisions. We'll highlight sustainability wins, USDA/AZA compliance improvements, and staff training strategies that make the program run efficiently. Attendees will see how cross-department collaboration and a co-lead model keep both birds and staff thriving.

12:00-1:00 Lunch

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Wellbeing/Welfare

1:00-1:20 "Development and Use of an Orthotic Leg Brace in a Chilean Flamingo" Daniel Hemmann, Curator at John Ball Zoo.

Due to a soft tissue injury in August of 2024, one of the Chilean Flamingos at John Ball Zoo was unable to bear weight on his right leg. A custom orthopedic device was developed with the assistance of Mary Free Bed Rehabilitation Hospital in Grand Rapids. This device allows the flamingo to maintain positive wellbeing, exhibit normal behavior, and remain with the rest of the flock.

1:20-1:40 "Building the Next Generation of Avian Leaders – How to Teach Training, Exhibit Design and Animal Care" Ric Urban, Curator of Birds at Houston Zoo

During this presentation Ric discusses the changes in our profession and at the Houston Zoo with staffing, collection planning and exhibit design. The Houston Zoo Bird Staff has a collective of 226 years of experience as we build and mentor the next generation of Avian leaders.

1:40-2:00 "Maintaining Welfare Amidst Risk: Interactive Aviary Management in times of HPAI & Enteritis" Heather Pens, Senior Aviculturist at Aquarium of the Pacific.

"Maintaining Welfare Amidst Risk" outlines the strategies used at the Aquarium of the Pacific to support strong welfare in a large, high-volume lorikeet aviary. The paper highlights the development of a voluntary transport system for safely moving the flock on and off exhibit, proactive dietary changes to reduce disease vulnerability, and consistent recall training to strengthen control and reduce stress. It also reflects on past disease outbreaks and the preventative measures now in place. Together, these efforts demonstrate how thoughtful training, nutrition, and behavior-based management can maintain welfare even in a complex, high risk environment.

2:00-2:20 "Giving Birds a Tan: How UV lights Affected Leg Coloration of Superb Starlings (*Lamprotornis superbus)"* Nikki Hartman, Bird Supervisor at Riverbanks Zoo and Garden.

In 2024, Riverbanks Zoo and Garden bird keepers observed loss of leg pigmentation in Superb Starlings housed indoors. To address this, a UVB light supplementation trial began in 2025. Birds were initially offered six hours of optional UVB exposure and quickly showed a preference for the light, with visible pigment improvement after one week. Following a six-week trial, lighting placement and exposure duration were adjusted to provide broader and longer access. This presentation reviews the observed and biological outcomes and implications for avian husbandry under artificial lighting conditions.

2:20-2:40 BREAK

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Incubation/chick rearing

2:40-3:00 *ASAG's BIPOC Grant Recipien*t **"**Effective Reproductive Management in Tanagers: Designing Enclosures and Social Systems for Success" Micah Carnata-Peralta, Senior Animal Care Specialist, Birds at Brookfield Zoo Chicago.

This presentation explores effective breeding and flock-management strategies for Neotropical passerines, using tanagers as a primary case study. It outlines approaches for maximizing reproductive success, beginning with the placement of breeding pairs and the management of offspring, and continuing through species-specific enclosure design that encourages reproduction. Key flock-management techniques—such as navigating social hierarchies and mitigating aggression—are presented to demonstrate how differing behavioral responses influence outcomes. Although centered on tanagers, the methods and decision-making frameworks discussed can be applied broadly across passerine species.

3:00-3:20 "African Vulture Breeding." Brooke Johnson and Daisy Rivas, Senior Wildlife Care Specialists at San Diego Zoo Wildlife Alliance-Safari Park.

Successful breeding of Egyptian, Cape, and Rüppell's vultures, supported by enriched daily management and ongoing field collaboration with Vulpro.

Avian SAFE Programs

3:20-5:00 AZA SAFE Avian Programs: Summaries and Comparisons of Key Conservation Strategies and Program Requirements

In this session, various AZA SAFE Programs for avian taxa will be compared. Each Program will present key conservation strategies and projects; each program will also describe ways in which they are organized and operating requirements. This will allow the audience to understand and compare not only desired conservation outcomes and strategies, but also how to become more involved with relevant Program(s).

- *African Penguin- Patty McGill*
- *Songbirds- Shane Good*
- *Asian Hornbills- Roger Sweeney*
- *African Hornbills-Anne Knutson*
- *Thick-billed Parrots-Jenna Stallard*
- *African Vultures, Estell Sandhaus*
- *Red Siskin*

Evening: ASAG Wine and Cheese Event

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Monday, March 23

8:00-8:40 ASAG Updates

- *"ASAG Keeper Survey Results" Kyle Waites, Collection Manager-Birds at Phoenix Zoo.- A review of the results from a short ASAG survey that was sent out in August 2025. This survey was intended to gain perspective from the keeper level to better understand awareness of ASAG and its use of its website. We will review responses and how they will help guide ASAG in the future*
- Veterinary Updates from ASAG Vet Advisor Dr. John Griffioen with Fort Worth Zoo
- Plume Awards presented by Beau Parks

In-Situ /Ex-Situ Conservation

8:40-9:00 "Establishing Captive Research Flocks to Support Nutrition, Telemetry, and Conservation Science in Arctic Birds" Jacob Kraemer, Aviary Director at Pinola Conservancy

In 2025, Pinola Conservancy, in collaboration with the US Fish and Wildlife Service, ventured to Utquiagvik and Prudhoe Bay , Alaska to collect eggs from two different shorebird species, Red Phalarope and Dunlin and two different waterfowl species, King Eider and Pacific Common Eider . This presentation describes an integrated research effort combining shorebird and sea duck diet analysis, evaluation of telemetry attachment effects, and the establishment of captive shorebird and eider flocks. The project aims to improve animal welfare, refine research methods, and support future conservation and management of Arctic bird populations.

9:00-9:30 "Conservation Breeding as a tool for Species Recovery: The Florida Grasshopper Sparrow Program" Becca Garlinger, Lead Conservation and Recovery Specialist with White Oak Conservation

The goal of this presentation is to provide an overview of the Florida Grasshopper Sparrow Conservation Breeding Program, and to outline its trials, challenges, and successes. It will highlight the program's impact on Florida Grasshopper Sparrow conservation and discuss the extensive collaboration among all partner organizations involved. Lastly, it will also demonstrate how conservation breeding can function as a vital supportive tool in preventing species extinction events

9:30-9:50 "Navigating Complex Relationships in Urban Bird Conservation" Joseph Garner, PMC Program Assistant at AZA Population Management Center at Lincoln Park Zoo.

One of the busiest beaches in Chicago, the Montrose Beach Area is a multi-use space, with the land being shared by swimmers, recreationists, birders, and dog walkers. Endangered piping plovers have nested here since 2019, appearing for the first time in the city since the early 1950's. The busiest months at this beach overlap with the peak breeding seasons for the piping plovers, which cause disturbances to their normal nesting and feeding behaviors. In particular, dog presence is a major disturbance to the plover's natural behaviors. To address this, the Urban Wildlife Institute at Lincoln Park Zoo launched a behavior change project to encourage collaboration between different groups in reducing dog disturbance to the plovers. Through the Piping Plover Conservation Action Project in Chicago, Illinois, we collaborated with several diverse partner groups including land managers, bird conservation organizations, and a dog beach group comprised of volunteers. Each group had their own distinct priorities that did not always align with each other. Our project aimed to bring these groups together to reach a common understanding and work together to encourage dog owners to adhere to beach regulations.

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9:50-10:10 “Whooping Crane Juvenile Cohort Formation in the Whooping Crane SAFE Program” Riley Parrott, Lead Conservation and Recovery Specialist with White Oak Conservation.
Rearing and release programs often have the challenge of balancing the release of birds to support wild populations versus holding them back to support ex-situ populations. To thwart ex-situ SAFE population declines, it was recommended that a larger-than-normal number of hatch-year whooping cranes be held back for the managed SAFE population in 2024 and 2025. Each year’s juveniles were transported from breeding facilities across the US and Canada and introduced in large habitats at White Oak Conservation on the same day to facilitate cohort formation. This project is ongoing and upon maturity, the cranes from different cohorts will be paired to reduce ephemeral pairing. Key to this project’s implementation was significant preemptive genetic and logistical planning, successful breeding facilities that focused on parent-rearing, and incredible levels of adaptability and collaboration across the Whooping Crane SAFE IRs to surmount abundant logistical challenge.

10:10-10:30 *ASAG Mary Healy Grant Recipient* “Operational Practices that Strengthen Post-Release Success in Whooping Crane Chicks.” Laura Lilycrop, Lead Zoologist, Birds, and Ectotherm Team with Dallas Zoo.
This presentation will outline the specialized practices used to promote natural behavioral development of Whooping Cranes while minimizing human exposure. Key strategies include maintaining an isolated off-site property that reduces environmental disturbance, installing long vinyl visual barriers between yards, and using sliding door systems that allow food exchanges without birds seeing staff. This session will provide an in-depth at the methodologies guiding rearing decisions at WCCT and their contribution to successful reintroduction efforts and ongoing Whooping Crane recovery.

10:30-10:40 BREAK

10:40-11:00 “Extinct in the Wild Action Partnership: Opportunities for zoos to halt human-induced species extinction.” Cara Martel and Fiona Sach. Both represent the IUCN SSC Extinct in the Wild Action Partnership, with Cara being the Manager of Conservation Breeding and Reintroduction at Re:wild, and Fiona the Zoo Conservation Impact Manager with the Zoological Society of London.
The IUCN SSC Extinct in the Wild Action Partnership (EWAP) represents a global initiative making a significant contribution toward rescuing species on the brink of extinction, revitalizing ex situ populations of Extinct in the Wild species, recovering wild populations of these species via first release, and promoting subsequent reinforcement for establishing wild populations (the 4Rs). Toward these four goals, this session will provide strategic thinking and connection among participants to highlight opportunities in delivering the 4Rs for Extinct in the Wild species, identifying avian species priorities and discussing how to catalyze action where needed. Critical conversations surrounding disruptive conservation initiatives and opportunities for scaling impact in long-term implementation efforts will be analyzed, with suggestions and situational questions being offered for determining when progressive change is needed and promoting the evolution of best pathways toward greatest impact in species recovery. From Sihek to Socorro doves, opportunities, and challenges for incorporating and continuing Extinct in the Wild efforts in your avian collection and recovery plans will be explored.

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Enrichment and Training

11:00-11:20 “Avian Environmental Enrichment: Current Research and Future Needs” Lance Miller, VP of Animal Welfare and Science with Brookfield Zoo Chicago *Environmental enrichment enhances bird welfare by increasing environmental complexity and promoting natural species-specific behaviors. While research indicates benefits like improved physical health and reduced undesirable behaviors, the efficacy varies depending on species and type of enrichment. The current presentation will highlight previous research on avian enrichment and provide areas of opportunity of future needs.*

11:20-11:40 Teaching an Old Vulture New Tricks: Protected Contact Training for an Aging King Vulture. Kristina Pennington, Education Trainer at National Aviary.
During his stay at the National Aviary, an older King Vulture showed an interest in engaging with his human caretakers. Given his unique needs, I worked with him to provide training sessions through protected contact that allowed him to engage in husbandry and enrichment behaviors and have choice and control over aspects of his care.

11:40-12:00 “Ziggy - A Vulture's Journey” McKenzie Bender, Senior Keeper at Zoo Atlanta.
In 2025 Zoo Atlanta was given the opportunity to acquire a YOY black vulture through a local rehabilitation center. Wanting to ensure life-long well-being of a social species we immediately began looking for a suitable companion bird. Finding one at another AZA facility who had been a previous Ambassador seems to be the perfect fit. “Ziggy” began exhibiting human-based aggression almost immediately, but with careful work, the right logistical set up and a concrete training plan she was able to be introduced to all primary keepers in the area and started re-training to be an ambassador once again.

12:00-1:00 Lunch

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ASAG WORKSHOP: WATERBIRDS

1:00 Welcome and Introductions

1:10-1:30 " Mastering voluntary weighing of three penguin species in a multi species exhibit." Stephanie McIntosh, Lead Aquarium Bird Keeper at Omaha's Henry Doorly Zoo and Aquarium.
This presentation describes the successful implementation of voluntary weighing for three penguin species in a mixed-species exhibit. Through positive reinforcement training and the development of custom weighting platforms, keepers improved the consistency of getting weights while also minimizing stress and restraint.

1:30-1:50 "Ensuring Penguin Wellbeing During an Extended Exhibit Closure" Anne Heitman, Curator of Birds at Sedgwick County Zoo.
In early 2025, the acrylic window at Sedgwick County Zoo's Humboldt penguin habitat sprung a leak. What followed was an 11-month exhibit closure that required the penguins to be held off-exhibit. Bird staff implemented several strategies to ensure the continued health and wellbeing of the penguin flock during this time. Strategies such as building a temporary outdoor yard, additional habitat furniture, HVAC changes, additional health and wellbeing assessments, and more! This presentation will discuss those strategies and the outcomes.

1:50-2:10 "Increasing African Penguin Welfare & Breeding success through encouraging natural behaviors and training." Maddie Olszewski, Biologist II, African Penguin Primary Biologist at Adventure Aquarium.
Beginning around 2020, Adventure Aquarium's African penguin colony began experiencing a decrease in reproductive success and an observable decline in natural behaviors. Our team developed a breeding plan geared towards allowing the birds more control over their own breeding season and allowing for the expression of more natural behaviors. By redeveloping our feeding schedule and methods we also saw an increase in swimming behavior and exhibit usage which has been another step in encouraging natural behaviors and improving the overall welfare of our colony.

*2:10-2:30 "*A New Approach to Introducing an Atlantic Puffin Chick to a Mixed-Species Exhibit" Stephanie McIntosh Lead Aquarium Bird Keeper at Omaha's Henry Doorly Zoo and Aquarium.
This presentation highlights a modified approach to parent rearing and introduction of an Atlantic puffin chick into a mixed-species exhibit. By implementing a new introduction strategy and structure, we observed a smoother transition for the chick, reduced stress behaviors including conflict and improved overall experience for the entire exhibit.

2:30-2:50 Break

2:50-3:10 "Refining Nesting, Incubation, and Rearing Techniques for Arctic-Nesting Waterfowl and Shorebirds at Pinola Conservancy" Jacob Kraemer, Aviary Director at Pinola Conservancy.
This presentation highlights improved nesting, incubation, and rearing of Arctic-nesting waterfowl and shorebirds at Pinola Conservancy, driven by optimized diets, enhanced incubation protocols, and refined chick-rearing strategies.

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3:10-3:30 “Integrating Design and Management to Strengthen Avian Collections in Zoos” Cody Hickman, Director of Avian and Ectotherm Care and Conservation at Brookfield Zoo Chicago

Brookfield Zoo Chicago recently revitalized a habitat designed for wetland-associated bird species, merging three former enclosures into one larger space, providing flexibility. This transformation allows the zoo to house a more diverse collection, improve breeding opportunities, and encourage more natural behaviors that support animal welfare, strengthening the role of the bird collection within the zoo’s broader animal program and better supporting established programs. This project demonstrates how strategic habitat transformation and thoughtful management practices can elevate birds’ role within a zoo collection, improve welfare, and enhance visitor engagement.

3:30-3:50 “Wattled Crane Juvenile Cohort Formation- A Population Model to Improve Space Constraints Prior to Pairing.” Andrew Schumann, Conservation and Recovery Program Manager at White Oak Conservation.

The Wattled Crane SSP recently developed and implemented a population management strategy where breeding facilities send their similarly aged chicks to a holding facility that introduces and maintains the juveniles together as a cohort. Keeping the juveniles in a cohort reduces programmatic space needs, allows breeding pairs to continue breeding, facilitates critical subadult socialization potentially improving long-term breeding success, and allows additional time for exhibit/breeding facilities to be identified. The implementation of this juvenile holding model has facilitated SSP population growth and sustainability, yet additional holding facilities are needed to fully achieve SSP goals.

3:50-4:10 “Choice-Rich Environments: Optimizing Flamingo Welfare and Social Bonds Through Innovative Husbandry” Emily Venckus, Lead Animal Care Specialist, Birds at Brookfield Zoo Chicago.

At Brookfield Zoo Chicago, a small flock of American Flamingos is managed through a dynamic, choice-rich program providing access to two distinct habitat spaces—indoor and outdoor—each offering unique experiences. Structured walks and varied environmental opportunities encourage natural behaviors, stimulate activity, and support social development. These practices have supported an expanded repertoire of species-typical behaviors without hindering natural social bonding, including pair formation, nesting, and copulation. This presentation will highlight our methods, observations, and lessons learned, showcasing an adaptable approach to managing healthy, active, and socially thriving flamingos.

4:10-4:30 “Where Wading Birds Nest and Crocodiles Roam” Gen Anderson, General Curator at St. Augustine Alligator Farm Zoological Park.

Eight species of wild, native wading birds’ nest at the park, mostly directly over crocodilians. Among these birds are species of significant conservation concern, including those that are federally listed or state imperiled. This presentation explores the unique challenges and opportunities of conducting wading bird conservation and research in a landscape shared with large crocodilians, highlighting management considerations, monitoring constraints, and conservation outcomes.

4:30-5:00 Open Discussion led by Kyle Waites

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QR Code to ASAG's 2026 Midyear Survey