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LINCOLN, NEBRASKA



2022 Conference Speakers and Workshops

FEATURED SPEAKERS

Advanced Imaging and Metabolic Bone Disease

Dr M Scott Echols

Metabolic bone diseases relate to disorders of the bone and include rickets, osteomalacia, and osteoporosis. Osteoporosis is simply decreased or lower than expected bone strength and will be the focus of the discussion. Until recently, osteoporosis has been largely ignored in captive birds- especially adults. New advanced imaging technology, especially detailed CT exams, have helped bring this problem to light. This discussion covers osteoporosis, diagnosis and management/treatment options in birds.

BIO: Dr M Scott Echols is a board-certified avian specialist veterinarian working primarily in the US. Dr Echols graduated from Texas A&M College of Veterinary Medicine in 1995 and completed his residency

in avian medicine and surgery at the Medical Center for Birds in 1999. He is an internationally recognized author, speaker, researcher, adjunct professor, visiting professor and practitioner. His artwork has been featured on several magazine covers and in numerous galleries in the US, Europe and other locations. Awards include Recipient of the TJ Lafeber Avian Practitioner of the Year Award, 2005; Recipient of the Texas Veterinary Medical Association 2007 Non-Traditional Species Practitioner of the Year Award; Wellcome Images Award 2017 Finalist and Texas A&M 2018 Distinguished Alumnus Award. Dr Echols has numerous inventions in the field of imaging which are currently being used in animal and human medicine.

It's the Little Things That Matter Most: The Fine Art of Training Animals

Steve Martin, Natural Encounters, Inc.

For many people, training is little more than giving a cue, bridging correct performance of a behavior and delivering a treat. For some, this is enough. With low expectations and the comfort that comes with avoiding mistakes, some people take weeks to train a simple behavior an animal can learn in one session. What's missing here are the little things. Little things can ruin a session and little things can save a session. An inch too close, a bridge a millisecond too late, and a missed body language cue are just a few of the little things that can derail a training session. This presentation examines some of the most important "Little Things" that have big influence on creating productive training sessions.

BIO: Steve Martin is President/CEO of Natural Encounters, Inc. (NEI), a company of over 40 professional animal trainers who teach animal training strategies and produce educational animal programs at zoological facilities around the world. Though best known for his work with free-flight bird programs, most of his work involves teaching mammal trainers the art and science of behavior change principals. He teaches several animal-training workshops each year and is an instructor at the AZA Animal Training School, an instructor at the Recon - Elephant training workshop, a Trustee with the World Parrot Trust, and a member of the AZA Behavior Advisory Group. He is also President of Natural Encounters Conservation Fund, Inc. a non-profit company that has raised and donated over \$1.3 million to in situ conservation programs. Steve Martin has a strong commitment to conservation and helping people understand their relationship with the living earth. The Mission Statement of NEI is "Connecting Humans with The Natural World" and Earth Day is an official holiday for all NEI employees.

PAPER PRESENTATIONS

(In order of presentation)

Finding the 'Middle Ground'

Nicky Plaskitt CPBT-KA, Shaping Behaviour

I have this grand idea. Many of them, actually. The sort of grand ideas that would revolutionize the way we as animal caretakers and trainers approach and achieve our welfare goals. In an ideal world, these

grand ideas would not only take shape but develop and turn into beautiful, polished, and incredible husbandry routines, which could be activated by any member of staff at any moment when they are required. We would have birds with no 'baggage' or prior history of aversive experiences. Staff members with unlimited time and ability, and management who believe in, understand and prioritize utilizing positive reinforcement behavior management to improve animal welfare across the collection. Things like animals willing to shift on cue with one unfamiliar staff member, outside the enclosure suddenly become a possibility. Things like an entire flock of birds all stationing to a different area where they could be weighed, crated, and medication administered, without stress because we have planned for this very moment. Things like the entire staff proactively listing and training all the behaviors they think they could ever need within an animal's life span. And being supported to do this. Do any of us live in an ideal world? I'm sad to say that I definitely don't, and I'm sure many of you experience the same challenges as I have faced in my career so far. Does that mean we should just give up? Settle for the way things have always been done, just because 'we've always done it that way,' or 'the animals don't seem to mind that much,' or even 'once they get into a routine where they know what we want them to do we don't have to chase them anymore'...or is there another way? I want to explore the 'middle ground'. Can we use our knowledge and skillset as R+ animal trainers and caregivers to work with our animals and our teams and managers to find a solution that might not be as fancy as we could in an ideal world, but that is significantly less aversive than any previous methods being used? Can we make it easy enough that even those people who have 'always done it that way' can succeed and change their mindset, even a little bit? If we can do this, what does it look like? How do we take the first steps? Are there going to be bumps in the road on the way there? How do we get over them, or go around them? Can this 'middle ground' become a pitstop on the way to the grand idea?

BIO: In the 20 years I have spent working in UK zoos and aquaria, I have worked with animals using positive reinforcement training to develop behaviors for husbandry, veterinary care and public presentation. From 2012 – 2021 I ran the Bird team at Paradise Wildlife Park (UK), revolutionizing the management of birds on section. I have worked for ZSL London and Whipsnade zoos and other prominent UK collections. I was lucky to work with NEI at the State Fair of Texas in 2011 and 2013. In June 2021 I set up my own business. Shaping Behaviour is a consultancy with the goal of improving animal welfare in all collections by teaching keepers the skills they need to use R+ with their animals and staff. This is done through zoo consults and workshops for keepers. My goal is to inspire keepers to make better future decisions and to empower them with the knowledge to do so.

What Does “Normal” Look Like? Interpreting Bird Behavior to Improve Medical Care

Colleen Hartman, CPBT-KA, Carolina Raptor Center

At Carolina Raptor Center, we have had many cases where identifying subtle behavior changes in our ambassador birds has allowed us to catch medical problems early and potentially correct them. Building strong relationships with our birds benefits us in many ways with training, but also assists in providing them with the best welfare when it comes to medical or husbandry care. By having a solid foundation of

trust and positive history with a bird, caretakers may be able to catch small, less obvious signs of medical issues or illness that other staff or volunteers may miss. Some early signs of potential problems may be changes in posture, balance, gait, vocalization, response times, or the way that birds hold their feathers. Understanding why animals hide illnesses and injuries, establishing what “normal” looks like for each individual, and improving our sensitivity to behavioral changes are all ways that we can improve the welfare of our birds and become better advocates for their care.

BIO: Colleen Roddick is the Animal Training and Show Manager at Carolina Raptor Center and has been working with raptors and other birds of prey for over seven years. She oversees the 46 ambassador birds used for educational programming, roaming encounters, and Carolina Raptor Center's Bird Show that showcases free-flighted birds of prey. Colleen has been hosting raptor training seminars since 2016, is a current member of the International Association of Avian Trainers and Educators (IAATE) and is a Certified Professional Bird Trainer (CPBT-KA).

Learning from Legacy Owls: Lessons from Parent-reared, Non-releasable Owls and Trainers Who Care for Them.

Jenn Bock, Wild Ontario

Sidney Campbell, American Bald Eagle Foundation

Owls are among the most charismatic birds found in educational programs. Since its publication in March 2018, the IAATE Position Statement on the Welfare of Human-Reared vs Parent-Reared Owls in Ambassador Animal Programs has brought the conversation about the welfare of parent-reared, non-releasable (PRNR) owls in human care to center stage. The fervor of this conversation emphasizes the passion owls inspire, not only in audiences but in trainers themselves. We strongly believe the IAATE position statement is an excellent guideline to better inform future acquisitions, however we recognize the reality that PRNR owls are prevalent in education today. Many collections, particularly those at smaller facilities, are populated by “legacy birds” placed before evidence-based acquisition guidelines were widely available. We will present case studies - positive and negative - that highlight the importance of clear communication, resource availability, trainer knowledge and skill level, honest assessment, and pragmatic decision making when it comes to working with PRNR owls in human care. We hope that by sharing lessons from our past, we can help to ensure a better future for owls and their trainers.

BIO: Sidney Campbell is the Animal Curator at the American Bald Eagle Foundation (ABEF), a natural history museum and raptor center in Haines, Alaska. She leads the animal care staff and a team of 17 birds. She is passionate about elevating the welfare of birds working in education, particularly legacy birds with challenging histories, through training and education.

Jenn Bock manages a team of 15 non-releasable, native birds alongside an incredible, small but mighty staff team and 40 extremely dedicated, highly trained U of G student volunteers. The team delivers outreach programs to audiences across the province and teaches a university course in communicating

science to the public. Jenn adores working with the birds and loves delivering outreach programs but is most proud of having developed a unique volunteer training program that has provided foundational experience to hundreds of fledgling avian trainers and educators since 2006. Jenn lives in Guelph, Ontario, Canada with her husband and their 5-year-old budding bird nerd. She spends her free time enjoying the outdoors and appreciating our natural world and the creatures we share it with.

How Training Affects Welfare

Steve Martin, Natural Encounters, Inc.

Animal welfare is in the minds and on the lips of zoo professionals around the world. It is the focus of committees, the topic of conversation at board meetings, and the goal of animal care professionals. The AZA Welfare Committee has a formal description of Animal Welfare that is focused on the outcomes, but what about the inputs? How do we create good welfare for animals? It's more than updating an enrichment program or collecting better data on the behavior of exhibit animals. Animal welfare is a product of the conditions we create for the animals in our care. It's more than good food, protection from the elements and reducing stress. This presentation will highlight some of the most important ways animal caregivers can improve welfare by teaching animals to voluntarily participate in their own health care.

BIO: Steve Martin is President/CEO of Natural Encounters, Inc. (NEI), a company of over 40 professional animal trainers who teach animal training strategies and produce educational animal programs at zoological facilities around the world. Though best known for his work with free-flight bird programs, most of his work involves teaching mammal trainers the art and science of behavior change principals. He teaches several animal-training workshops each year and is an instructor at the AZA Animal Training School, an instructor at the Recon - Elephant training workshop, a Trustee with the World Parrot Trust, and a member of the AZA Behavior Advisory Group. He is also President of Natural Encounters Conservation Fund, Inc. a non-profit company that has raised and donated over \$1.3 million to in situ conservation programs. Steve Martin has a strong commitment to conservation and helping people understand their relationship with the living earth. The Mission Statement of NEI is "Connecting Humans with The Natural World" and Earth Day is an official holiday for all NEI employees.

All Birds Secure: The Anatomy of a Flyoff

Amy Fennell, CPBT-KA, Natural Encounters, Inc.

For those who choose to fly their birds free, the occasional flyoff is an unwanted but unavoidable inevitability. Providing an animal with complete (or near-complete) environmental freedom will always involve a level of inherent risk that cannot be eliminated, regardless of precautions taken or previous behavioral predictability. How do we minimize that risk? How do we mitigate the dangers? When things go wrong, what really matters in the moment? During a flyoff, preparation and the prompt response of trainers may be the difference between a thirty-minute jaunt or a three-week nightmare, but with so many variables it can be a challenge to set yourselves and your animals up for success. And when it's all

over, what then? Flyoffs are emotional, complex, stressful, and (for better and worse) are subject to ever-increasing levels of public scrutiny. Our skill as trainers in navigating these emergencies and analyzing the information learned in the aftermath is crucial in ensuring our birds stay safe, stay healthy, and stay flying.

BIO: Amy began working professionally with animals in 1999, where she learned basic medical care of companion animals at a veterinary hospital before attending the University of Guelph, where she got her start with both birds of prey and environmental education at the Wild Bird Clinic. She moved into a leadership role with that program a few years later while also working as a resource interpreter at the Mountsberg Raptor Centre, focusing on environmental education with non-releasable native birds of prey. As Raptor Centre Lead, she additionally acted as a Program Director for the Eastern Loggerhead Shrike Recovery Program, as well as managing and training a variety of non-avian wildlife, including native insectivorous bats and both native and non-native reptiles and amphibians. She joined the Natural Encounters, Inc., team on a full-time basis in 2014 and has been thrilled to work on mixed species free-flight projects in Illinois, Indiana, Texas, Arizona, and Florida. Amy is a certified professional bird trainer (CPBT-KA) and is always looking forward to the next great avian adventure!

A Different Perspective: A Model for a Growth-Focused Volunteer Program

Abby Flanders, Shaver's Creek Environmental Center

The primary goal of Shaver's Creek Environmental Center, like many programs that house animals for education, is to instill conservation behaviors into visitors and staff. As a part of Pennsylvania State University, the center holds internships and student volunteering opportunities at its core, and, by providing experiences that empower individuals to progress in their field, thereby seeks to improve both human and animal welfare in the wildlife and conservation education field. The vision of the Shaver's Creek animal program was to evolve from volunteer-dependent to volunteer-serving: to transition from using unpaid staff solely for daily task assistance to creating teaching and mentorship opportunities for program participants. Developing educational programming for volunteers improved the quality of experience for unpaid participants, and also benefited overall animal welfare and provided benefits to the Shaver's Creek staff as a whole. This paper reviews the new Shaver's Creek volunteer program model, how it can provide multifaceted benefits to environmental education facilities, evidence of its efficacy, challenges faced, and why we believe this model should be implemented more broadly to the benefit of the field as a whole.

BIO: Abby began working for Shaver's Creek in January of 2018, with a role of leading student volunteers in caring for, training, and educating with a diverse flock of 15 raptors and a menagerie of herps. Abby grew up in the flatlands of South Dakota, where she obtained her Bachelor's degree in Biology and Secondary Education, with a minor in Psychology. Before settling into the forests of Central Pennsylvania, Abby developed her raptor training and educational skills at the American Bald Eagle Foundation in Haines, AK, led summer camps at SeaWorld, and spent a semester studying marine biology, conservation, and education techniques at the New College of Florida. Abby now utilizes her diverse background in

training a variety of birds at Shaver's Creek while developing training modules to lead Pennsylvania State University students and community volunteers with special interests in entering the field of animal behavior, zoological sciences, and conservation education.

Working with Competing Reinforcers While Performing Wildlife Management

Morgan Bryson, The Raptors

At The Raptors (PNWR) we work with our birds providing wildlife management and education at various sites across Canada. No matter the location, there will always be competing reinforcers while training an animal, however, some sites (waste management facilities, airports, etc.) are more difficult than others. These challenges truly test us as trainers. Waste management facilities and airports provide an abundance of competing reinforcers our trainers must contend with such as: food waste/meat scraps, potential of catching prey and environmental factors. Flying top predators in a sea of garbage filled with scavenging material can feel like an impossible task. Additionally, the balance in encouraging your birds to deter problematic species (e.g. gulls) and come back to you instead of becoming self-sufficient is constant and presents many teaching moments. When surrounded by these competing reinforcers, how can we set our birds up for success while also providing wildlife management. Learning how to deal with many inevitable competing reinforcers while also providing a service can be demanding, but presents many opportunities to continuously learn from each other to be successful. There are always obstacles while flying our birds, as a result, our training is fluid, always being fine-tuned and confronted. Not only to be able to work around these challenges, but also produce a service and progressive training.

BIO: Morgan is a 6-year member of IAATE and is currently working as a duty manager at The Raptors. Morgan started her career with birds as a volunteer in 2012 and has been hooked ever since. As a duty manager, Morgan oversees day to day bird husbandry and visitors experience at The Raptors' visitors' center. Additionally, being one of The Raptors' senior bird trainers, she also actively participates in training the facilities birds and staff. One of Morgan's favorite things about working with birds is being able to connect humans with wildlife, to hopefully be able to protect species for generations to come. Founded in 2002, The Raptors (also known as Pacific Northwest Raptors) is based out of British Columbia, Canada. We have two main mandates that are closely aligned. One, to promote conservation through education, to ultimately improve the world for our wildlife. We mainly do this through free-flight educational programs at our visitors' facility, but also do outreach across B.C. Our second mandate is to develop sustainable and ecologically appropriate solutions to human-wildlife conflicts. This is the work we do at airports, landfills and other industrial sites. Flying raptors is a natural and green method of wildlife control, and we can work with our birds at sites, to manage and deter certain avian species. One of the things we love most about our work, is the majority of our birds do both jobs, education and wildlife management, which keeps them in work year-round.

Exchanging KnOWLedge: Sharing Thoughts and Experiences Working with Rehabilitated, Parent-reared Owls in an Education Setting

Paige Sutherland & Joe Whitehead CPAT-KA, Shaver's Creek Environmental Center

There has been discussion within the avian care community regarding the welfare and suitability of owls in educational programs. Some have proposed transitioning towards exclusively employing human-reared owls. While the infrastructure and resources to support this position are yet to be fully developed, facilities, and caretakers of these owls are left to determine what these suggested changes mean to their current operations, collection plans, and future program goals. Moving forward, open discourse and continued research on the welfare and suitability of owls will ensure their ability to thrive under human care. In response to the community discussion points on owl welfare and program suitability, this paper reviews owl classification, natural history, and individual case studies that share our experience successfully training and showcasing rehabilitated, parent-reared owls in educational programming. Our intent is to help mitigate welfare concerns observed within the field and support those who find themselves conflicted regarding how to navigate these suggested industry changes. We hope professionals and enthusiasts of all experience levels feel invited to contribute their insights and knowledge to enrich this conversation and empower the community that cares for these animals.

BIO: Joe Whitehead is a certified professional animal trainer who currently works for Shaver's Creek Environmental Center (PSU) as the Amphibian and Reptile Program Coordinator. Joe's responsibilities in this role are varied and include assisting in the daily care of fourteen resident raptors while leading the training of four individuals. Joe is a lifelong naturalist and environmental educator who is committed to supporting the welfare and conservation of the variety of species he's had the pleasure to work with.

Paige Sutherland is the Lead Animal Ambassador at Shaver's Creek Environmental Center (PSU). She supports the daily care of fourteen resident raptors while leading the training of three. Paige has performed research on species both in- and ex-situ, and trained species both native and exotic. She has worked at facilities ranging from a local environmental center to a government zoological institute. Paige is a lifelong conservationist of biological and cultural diversity.

Curating a Culture of Caring

Arianna Bailey, Natural Encounters, Inc.

We all want to work with people who value our input, collaborate on ideas to improve practices, invest in professional development, and communicate at a high level. And we want all of that to happen with people we enjoy being around and who seek out interactions that elevate each other to be their best. This isn't just so we feel good, but we shouldn't discredit the importance of feeling good. Mental health is more of a priority for employers than ever before, and research suggests that high performance teams lead to higher levels of animal welfare. It also leads to high retention rates, less call outs, and better coping skills when things are stressful or traumatic. When we apply the science of behavior change strategies that we use with our birds to our human colleagues, we communicate at a higher level. We also

understand each other better and we create a comfortable space for everyone to give and receive feedback and make the mistakes that help us to learn and grow. We are in a huge growth period in our industry that will set new standards for human welfare. There is a lot of work to do, and we are just embarking on this journey. Join me in a conversation about how we can make curating a culture of caring the baseline for all teams and individuals in our field.

BIO: Ari Bailey has been working in the animal field for more than 15 years. She got her start working with a large collection of reptiles, mostly crocodylians, and this is where she found her love for behavior. She sought out a job with Natural Encounters, Inc. 12 years ago and has worked alongside many talented trainers during her tenure. She is the current Show Manager for NEI, leading a team that fosters an incredible environment for learning and growing while producing free flight bird shows. Certified as a professional bird trainer and professional animal trainer (CPBT-KA, CPAT-KA), Ari is a key faculty member for NEI TEC, providing monthly content that is available as a resource to the professional zoological and training community online, an instructor for NEI's Professionals Workshops and online courses, and co-host of the NEI TEC Talk Podcast. She has been an IAATE member for over 10 years serving on various committees and the Board of Directors. She is currently the proud President of IAATE.

Sacred Scarlets of the Desert Southwest

Kelley L.M. Taylor, Sacred Scarlets

Scarlet Macaws have a very long and mysterious presence in the American Desert Southwest although their nearest native habitat was 1500 miles to the south where they were represented in powerful societal and cosmological realms of the Maya and Aztecs. Evidence of nearly 200 Scarlet Macaws have been unearthed at various ancient sites once inhabited by early Native American cultures, the earliest dating to approximately 600AD at a site known today as Snaketown south of Phoenix, Arizona. Over the next 7 centuries their presence is observed in various forms including skeletal remains, exquisite feather artifacts, petroglyphs, iconography, and pottery. Archaeologists believe they were brought at a very young age by traders on foot, traveling for weeks over vast regions, rough terrain and dangerous territories to these various regions. Some have even speculated they were bred at two different cultural regions. In recent years Scarlet Macaws have become the subject of great interest in southwest archaeology. Did they represent trade or a deity as they did to the south? Did they represent a priest/king or possibly familial clans? Scarlet Macaws are held sacred by the descendants of these early cultures pointing to the important complex intricacies within their social and spiritual realms. Today the sight of these magnificent creatures amongst the ruins, Sacred Scarlets brings a connection to our past which is unique and rarely obtained by bringing together Scarlet Macaw conservation, archaeology and even veterinary science in a most colorful, fascinating and unique way.

BIO: Kelley Taylor has been a lifelong aviculturist and researcher. She is Founder and Director of Sacred Scarlets, a 501(c)(3) dedicated to the conservation of Scarlet Macaws and bring about awareness of their sacred history in the Desert Southwest. She has studied fine art, veterinary science, and archaeology. After years studying various disciplines, Taylor believes it is critical for researchers to look beyond their chosen

field for a more comprehensive spectrum of tools. Her work has helped bring about recent groundbreaking perspectives in Southwest archaeology. She is co-author of *Birds of the Sun: Macaws and People in the U.S. Southwest and Mexican Northwest* (University of Arizona Press) due out Spring 2022. She shares her home with and is a devoted servant to beautiful Scarlet Macaws Sedona Rose and Bonita.

Ever Upward – Aviary Edition

Susan Burchardt, Woodland Park Zoo

Woodland Park Zoo's Willawong Station aviary, an interactive Australian aviary housing primarily budgerigars and cockatiels fed by guests with millet seed sticks, was originally planned to operate for three years. Willawong entered its 17th year in 2021. Over the last three years, we have developed strategies to identify potential animal welfare issues and implement improvements. We reviewed a few previous years of necropsy data and identified the primary causes of death as avian gastric yeast, trauma and avian TB. Based on that information, our Exhibits team modified environmental factors like perching and floor resurfacing to reduce humidity, and we attempted to reduce pH in their digestive systems by adding a vinegar protocol to their water supply. To address the occurrence of trauma we updated our collection plan to phase out our declining population of budgerigars and concentrate more on cockatiels and a few other species. We moved our selected breeding birds into holding so that young birds could fledge safely, which had the added benefit of creating a strong shifting behavior in those birds as adults. We added lights for the live plants at the request of our Horticulture team and took advantage of the opportunity to install three UVA/UVB lamps that the birds preferentially use. Twice as many eggs were laid by the flock in the year following the installation of those lights. Next up is a revamp of the diet content and delivery to address an increase in BCS for the flock, likely a result of reduced exercise without guests coming through feeding seed sticks. The diet update will also reflect an attempt to address a long-standing problem with feather loss in the flock. In 2020 the zoo was closed for five months due to COVID-19, and although the zoo reopened, the aviary did not. At the time of writing, the aviary will likely remain closed to the public until spring 2022. At its advanced age, the building is scheduled for a new roof, an upgraded HVAC system, and appropriate holding to house the birds while those improvements are made. There are also ongoing concerns about avian TB and COVID-19. While there have been many challenges in this exhibit and the future of the guest experience is uncertain, we hope that sharing what we've learned can help others experiencing similar issues in their cockatiel and budgerigar exhibits.

BIO: Susan Burchardt is an Animal Keeper at Woodland Park Zoo in Seattle, where she seeks to make each day interesting for the animals in her care. She currently cares for an Australian aviary, 5 owls, 2 eagles, 1 adorable porcupine, and a few wolves. After 18 years of flying birds in shows, in 2019 she moved to training exhibit animals. She's studying conservation biology and has been an active member of AAZK and P.E.O. as well as a long-time fan of IAATE. Favorite behaviors over her career include teaching a raven to put the Tupperware shape-o-ball together, flying a pinioned ground hornbill, convincing two very large eagles to come into subterranean holding spaces, and scale training everything. For fun she hikes, volunteers for Coastal Raptors and other wildlife projects that collaborate with WDFW, and provides a lap for her cat.

Designing for Conservation: Preventing Bird Building Collisions in the Built Environment

Judy Bowes, Birdphilic

On average, 599 million birds die each year in the United States due to bird building collisions, with estimates up to one billion (Loss et al., 2015). And an additional estimated 400 million birds are killed by colliding with infrastructure (Bowes, 2020). Along with climate change, habitat loss, and predation from outdoor cats, this enormous yearly loss is one of the top four anthropogenic threats facing North American bird populations (Rosenberg et al., 2019). Collisions with built structures are a critical conservation issue contributing to a 29% total net loss of bird populations in North America and a 50% decline in migrating species since 1970 (Rosenberg et al., 2019). While there are multiple products available to reduce collisions with built structures, designs to prevent bird building collisions lack systematic evaluation from architectural researchers and solutions based on landscape, species behaviors, and existing design features. This paper intends to introduce the reader to bird building collisions as an avian conservation issue and demonstrate how effective façade, lighting, and landscape designs are vital to protecting avian populations from further decline. Additionally, by providing avian educators with a foundation of knowledge about a multifaceted but widespread threat facing birds in every community, effective solutions can reach a broad interdisciplinary audience and encourage local action.

BIO: Judy is a Ph.D. student at the University of Washington in the College of the Built Environments, Sustainable Systems and Prototypes. Judy is also a bird protecting design consultant and founder of Birdphilic.

Teton Raptor Center's "Poo-Poo Project:" A Conservation & Education Project

Meghan Warren & Connor Hartnett (Presenter), Teton Raptor Center

Teton Raptor Center's "Poo-Poo Project" prevents cavity-nesting birds becoming entrapped in the 'basement' of vault toilets when they enter through the ventilation pipes seeking a place to roost or nest. Each year thousands of cavity-nesters, animals that prefer dark, narrow spaces for nesting and roosting, become entrapped and die in vertical open pipes such as mining claim stakes, ventilation pipes, dryer vents, fence posts, old irrigation pipes, and chimneys. Vault toilets, the self-contained restrooms found in many of America's wilderness areas, feature vertical ventilation pipes that mimic the natural cavities preferred by some species for nesting and roosting. Birds enter the vault toilet through the ventilation pipe and get stuck in the 'basement' of the vault toilet. In 2010, Teton Raptor Center (TRC) addressed this problem by initiating a pilot-project, installing 100 'rock' screens (from vault toilet manufacturers) on the ventilation pipes of toilets throughout Grand Teton National Park, as well as Bridger-Teton, Caribou-Targhee, and Shoshone National Forests. The rock screens were very expensive @ \$100/screen and snow and leaf litter restricted airflow. Following the success of the pilot-project, in 2013, TRC created the Port-o-Potty Owl Project or "Poo-Poo Project" and developed its own screen to prevent wildlife entrapment on a national scale. In the summer of 2019, TRC created a new and improved stainless steel screen, the Poo-Poo Screen 2.0. The Standard 12" stainless steel Poo-Poo Screens are durable, easy to install, provide

superior ventilation and are very affordable at only \$34.50/screen. Since 2013, TRC has distributed over 18,000 Poo-Poo Screens to more than 640 Poo-Poo Partners located in all 50 States, the US Virgin Islands, and Canada. TRC was awarded the “Wings Across the Americas Award for Habitat and Partnership” from the USDA Forest Service in recognition of the conservation impact and partnership of the Poo-Poo Project in 2014. Teton Raptor Center recognizes that education in the realm of reducing conflict with wildlife is critical to reducing avian injury and mortalities. In addition to distributing the screens, TRC takes every opportunity through public programming to also educate about how and why this project is important. The fun name, the direct impact, and the clear conservation, results in a project that resonates with anyone who learns about the Poo-Poo Project.

BIO: Connor grew up in northern Vermont as a part of a dairy farming community, spending a large portion of his childhood outside and surrounded by both wildlife and domesticated farm animals. Connor's love of wildlife and the outdoors began there and further grew when he was able to experience new environments and animals after moving to Colorado. He attended Colorado College for undergraduate school where he received a B.A in History. He moved to Jackson, Wyoming soon after and began volunteering at the Teton Raptor Center in raptor rehabilitation. After a year of volunteering, Connor was extremely excited to be offered the opportunity to join the TRC staff as an Avian Care Technician. In this position Connor splits his time between avian husbandry, rehabilitation and educational programming.

FREE FLYING PARROTS—A Different Perspective

Chris Shank, Cockatoo Downs

Prevailing advice recommends that parrots destined for free flight, whether as companion birds or as free flight show birds, be hand-raised making it easier to create a bond with their caretakers and trainers. This human-parrot bond, so the theory goes, is the foundation for achieving success with flying a parrot outdoors. Countering that theory is the success I have had training and flying parent-raised cockatoos. Hand raising parrots comes with a plethora of ethical and welfare concerns for the chicks and their parents. These concerns seem to be ignored or unrecognized by the parrot community. I will discuss those concerns as well as addressing the methods and motivation I provide in my training program that result in successful, well-adapted, confident, and trusting free flying, parent-raised parrots. Included will be a short description of how the cockatoo parents in this presentation teach their fledglings to free fly.

BIO: Chris Shank's love of parrots and knowledge of animal training began four decades ago. She earned a degree from the Exotic Animal Training and Management Program at Moorpark College in California which included an internship with Busch Gardens 'parrot show. She has worked with dolphins, sea lions, and equines. She keeps up to date in her animal training through online lectures and courses as well as attending in-person clinics and workshops. Her admiration and fascination of cockatoos came during a relocation to the Philippines. Once back in the United States, she established her aviary Cockatoo Downs, where she regularly offers education and mentorships for parrot owners and trainers. Chris has been free flying cockatoos for almost forty years.

A Corvid and a Crate: Finding Success Through Community

Abbey Holden, Naturalist, Carpenter St. Croix Valley Nature Center

In October of 2020, Carpenter Nature Center added a Common Raven to their Animal Ambassador program. Korppi was previously housed at another facility that had to restructure due to the pandemic. She quickly adjusted to some aspects of her move but met new challenges including, a minor wing injury, a bout of lice-induced feather plucking and mutilation as well as a previous aversion to her crate. While examining this case study, we will reflect on the ways Korppi and Abbey were set up for success while taking a detailed look at the challenges of plucking and crate training and ways to overcome them. Abbey is new to training Corvids and hopes that Korppi's success can bring success to others through her lessons learned. She found value in the 2021 IAATE conference, a network of connections and guidance, as well as new observations skills and the importance of detailed notes.

BIO: Abbey Holden is an Interpretive Naturalist with a 501(c)3 non-profit, Carpenter St. Croix Valley Nature Center in Hastings, Minnesota. Abbey graduated from the University of Wisconsin - River Falls with a Bachelor's of Science in Conservation and Restoration and a minor in Outdoor Education. Abbey's first experience with animal behavior and training was with her childhood hunting dogs. Carpenter's robust Animal Ambassador Program has allowed her to expand into many species such as raptors, mammals, herps, and most recently, corvids. In her free time, Abbey is an avid outdoorswoman who loves to hunt, fish and backpack. She has trekked across many different landscapes, including a thru-hike of Minnesota's 300-mile Superior Hiking Trail.

Crafting Conservation Education Messaging that Inspires Action.

Erin E. Katzner, The Peregrine Fund

The average American is exposed to around 4,000-10,000 advertisements each day. In the midst of all of this communication, how do we cut through the noise and ensure our conservation messages are heard? More importantly, how do we ensure that messaging inspires action once our audience goes back into the onslaught of marketing that they work so hard to ignore? Using marketing techniques and The Peregrine Fund's communications strategy as a case study, this presentation will provide guidance in how to construct conservation education messaging that rises above the din and inspires audiences to change their behavior for the betterment of our planet.

BIO: Erin is a 20-year IAATE member, has been on IAATE's Board of Directors for the past seven years, currently serving as secretary. Her career began at the Columbus Zoo and Aquarium where she developed her passion for training and education. She then worked at the National Aviary for nine years. After earning a master's in nonprofit management, she moved to Leadership Pittsburgh, Inc. to train business executives to become community leaders. After that, she co-founded the Avian Conservation Center of Appalachia while teaching Public Administration at West Virginia University. She is currently the Vice President of Marketing and Communications at The Peregrine Fund, where she is responsible for carrying out a portion of their strategic plan: to inspire everyone in the world to care about raptors.

WORKSHOPS OVERVIEW

Advanced Training Skills Workshop

Steve Martin, Natural Encounters, Inc.

These days everyone's training. But there are different levels of training competency that separate the average trainer from the expert trainer. This workshop goes far beyond the "bridge-reinforce" mentality to explore the fine details of some of the most important aspects of expert training. Attendees at this workshop will leave with an understanding of critical aspects of expert training, including, fading prompts, empowering animals with control, extraordinary antecedent arrangement, creating trusting relationships with animals (including the human animals on your team), and much more.

Making it Easy: Training Fundamentals

Amy Fennell, CPBT-KA, Natural Encounters, Inc.

Have you ever walked into a session ready with a training plan and then discovered that putting theory into practice is harder than it looks? You know exactly when to bridge, but you fumble the reinforcer on delivery. You know what approximations to make during crate training, but it's such an awkward set up in the environment you have available. You have exactly the same scale that you've seen at other centers, but your bird won't come anywhere near it. Why is everything so hard?

If this sounds familiar, you aren't alone. Come join us at a workshop designed to make the fundamentals easier for both you and your animals. Practice important mechanics, train your eye to seek out easy antecedent changes that improve comfort and efficiency, and help make sure the most important basic behaviors (stationing, recall, weighing, crating, etc.) are also the easiest ones --mentally and physically-- for you and your birds.

Behavioral Enrichment: Working Together for Better Welfare Through Enrichment

Christina O'Donnell, Philadelphia Zoo

Animal care is a team effort and as the saying goes "It takes a village." The same is true with designing, implementing, and evaluating behavioral enrichment for your collection. Behavioral enrichment is an important cog in the animal care machine and plays a part in all aspects of your animals' care, for example, in diet delivery, exhibit design, social groups, and training goals. The best way to increase our animals' welfare is to come together, share information, and make sure these animals are set up for behavioral success.

Our common goal is to make sure our animals are given opportunities to behave the way they were meant to behave, experience new things, and freedom to make choices. If you are looking to start an enrichment

program, re-vamp your program, come up with fresh enrichment ideas, or just have some fun making stuff then I encourage you to come to this behavioral enrichment workshop where we will work and grow together to better our birds' lives.

Flying Free

Arianna Bailey, Natural Encounters, Inc.

This workshop will focus on free-flying birds, with a solid foundation in safety and welfare. Beginning with prerequisites and skills needed before you ever step foot outside, we will discuss the steps it takes to set birds up for success. There is much to consider when flying birds in an outdoor environment, from understanding what success looks like and how to measure it, evaluating the individual bird, and the evaluation of trainer skill sets, to safety, consistency, and more. Add in a few more challenges when flying multiple birds outdoors at once! We will aim to cover as much as possible in this two-hour workshop with a focus on the challenges of free flight and lessons learned over years of experience.



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