



2020 CONFERENCE PAPER ABSTRACTS

(IN ORDER OF PRESENTATION)

THURSDAY FEBRUARY 27

"Pay That Bird!" – The Use (and Abuse) of Analogies in Training

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

"Treat". "Reward". "Reinforcer". "Pay". "Tidbit". Familiar to some, foreign to others, and frequently holding different meanings for different people. These labels (sometimes colloquialisms, sometimes scientific definitions), for the intended positive consequence that we hope will result in an animal maintaining or increasing a specific behavior, are many and varied. At best, their proper use is something for colleagues to argue about over a beer (or three) at training conferences. At worst, they're a confusing tangle of constructs that are intimidating to the novice and a point of contention to more experienced trainers. But is formal scientific accuracy always best, regardless of the situation? Can the use of analogies during day-to-day training dialogue actually increase conceptual comprehension and skill in the trainer? Exploring the use (and abuse) of training metaphors may assist trainers of all experience levels in their quest to increase their levels of skill, empathy, and flexibility during training sessions with their animals.

Amy Fennell hails from southern Ontario, where she spent most of her formative years watching, studying and eventually working with animals, initially at a veterinary clinic and eventually at the University of Guelph, where she got her start with both birds of prey and environmental education at the Wild Bird Clinic. Formerly the Raptor Centre Lead at Mountsberg Conservation Area, Amy worked with a variety of non-avian wildlife while in Canada, including native insectivorous bats and both native and non-native reptiles and amphibians. She was thrilled to move south and join the Natural Encounters, Inc team on a full-time basis in April 2014, and has been a part of a number of incredible and unforgettable free-flight projects with NEI since that time. Amy has been certified as a professional bird trainer (CPBT-KA) by the International Avian Trainers Certification Board (IATCB) and is always looking forward to the next great avian adventure!

Training our Birds: From Jesses to Complete Free Choice.

Saskia Verbruggen, Silke Kruk, Wendy Terpstra-Vlaming, Landgoed Hoenderdaell, The Netherlands.

Since the first hours off 'Landgoed Hoenderdaell', a small birds of prey show is part of the park. The show was performed in "old school" falconry style. All birds were wearing jesses and were tethered most of the day (except for free flying and training of course). But the public opinions changed over the years and the park decided it was time to make some radical changes. The show needed to change. More educational, more birds and most important all bird should be in aviaries outside the shows. Big aviaries! No more jesses! This decision led to the development of a completely new bird show area. And this automatically had an enormous impact on the daily care of the animals, the training of the animals but also on the staff! A nautilus shaped complex was build, with aviaries that were visible for the public on one side and opened up to the show area on the other. Many new birds were acquired, more staff hired, and the old birds trained in a new style. Step by step we started training all birds by using positive reinforcement training (P.R.T.). They now have more choice and control over their participation in training or show. First we put them in smaller aviaries (6x3x2m) and introduced them to the basics: the bridge, a station and the scale (for voluntary weighing). Once they mastered those basics, we moved them to the brand-new big aviaries (different sizes but all 7 meters high). Here we started the training to introduce them to the show area, to do different behaviors for the show and for basic husbandry training. Training our raptors using P.R.T. was new for us. It took some getting used to from our side but the animals responded very well to the new training. We noticed some great advantaged using this method:

- Due to more choice, birds started working better.
- Higher flying weights and healthier birds.
- More possibilities in behaviors to be trained.

"Animals once labelled 'slow, obstinate aggressive, un-trainable' and more now respond quickly to cues" ~ Steve Martin 2016

So true! For us it has been an incredible experience so far. We learned a lot! About training and, of course, about our birds. We now have about 55 birds of all sorts and sizes in big aviaries. We have Hawks, Kites, Owls, Vultures, Hornbills, Herons, Macaws and many more. They all participate in the show voluntary. Most of them enter and exit the show area on que trough a hatch or door. The change has improved the welfare of the birds and the public is offered a great educational experience.

Silke Kruk graduated at Clusius College in Animal and livestock husbandry. Soon she found that her main interest lay in Birds training. She started to working with a falconer and commenced in learning falconry skills. This was still based on the traditional way of falconry. In 2008, she started working as a bird trainer at Vogelbush Eureka on Texel (The Netherlands). In her spare time, she continued her traineeships to get het falconers-licence. It wasn't until 2011, when she came to work at Ecomare, (a seal and bird sanctuary on Texel) that she was introduced to positive reinforcement training. Here she worked with seals and harbour porpoises. At that moment she decided she wanted to use P.R.T. with birds of prey someday. After Ecomare she went to Fuerteventura to work as a senior trainer with birds of prey at the Oasis Park. Since May 2017 she is working at Landgoed Hoenderdaell as one of the trainers of the bird show. Here she can finally combine her passion for birds with her interest in positive reinforcement training.

Saskia Verbruggen started her career as a marine mammal trainer at the Dolfinarium in Harderwijk. This was her first real encounter with animal caretaking and positive reinforcement training. And she found her passion. She worked with pinnipeds (seals, sealions and walruses) for 8 years in the Dolfinarium. Saskia was always interested in training birds of prey. So after the Dolfinarium she worked with a private falconer. But due to financial problems that didn't last long. After this Saskia worked as a manager of a petting zoo, a trainer of seals and harbour

porpoises at Ecomare Texel, (this is where Saskia and Silke met) and a sealion trainer in Ouwehands Zoo. When Silke went to Fuerteventura, Saskia went with her and started to work at the parrot division of Oasis Park. Here she realised that parrots are really cool animals to work with and found a new passion: bird training. In April 2017 Saskia started her own company Roundeurope Animal Training. With this she hopes to get more people interested in P.R.T. and help animal caretakers (private and professional) to be better trainers. In September 2017 Saskia started at Landgoed Hoenderdaell. Here they started to train all birds with P.R.T.

Changing a Culture Without Authority: Shifting the Paradigm from a Coercive Animal Ambassador Training Strategy to an Animal-Choice Training Strategy...as a Volunteer

Balinda Strosnider, PhD, CPBT-KA and John Glitsos, CPBT-KA, Liberty Wildlife

Former GE CEO Jack Welch once said, “The soft stuff is the hard stuff.” Cultures are considered intangible and soft, yet changing the culture of an organization is a prodigious undertaking. Of course, any time you are dealing with “change”, you will have resistance. Resistance to change is natural. When that change is led by a person or persons of non-authority, the resistance is multiplied. It may be difficult, but driving change from a position of zero authority IS possible. Looking back, we now see that the obstacles we faced during our multi-year attempt to update the thoughts about the training methods of the animals in our care were very similar to a culture change endeavor at a typical large company. This paper will discuss how two volunteers rallied behind a Maya Angelou quote to inspire an organization to consider choice-based training after 36 years of history. Even though this paper was developed through an experience at a large wildlife rehabilitation facility, the psychology of change management is universal. Thus, the techniques in this paper are scalable. The goal of this paper is to take the reader through a journey of changing a culture from the bottom (with no authority) and offer suggestions based on business and psychological principles for dealing with typical resistance issues. This is an opportunity to learn from our successes and our mistakes. Changing a culture is challenging, so the best strategy is to set yourself up for success.

Balinda Strosnider, PhD, CPBT-KA and John Glitsos, CPBT-KA each have over 10 years of volunteer experience at Liberty Wildlife, the largest wildlife rescue organization in Arizona (the annual intake is approaching 10,000 animals). They are both part of the Education and Rescue teams and John is part of the Eagle team as well. Both John and Balinda head up the Free-flight program that uses operant conditioning to train their animals. This is in their spare time. John owns his own software company, Best Wave, that provides digital signage software to major corporations worldwide. John also developed Exploret!™, a guest engagement App for zoos and other outdoor venues. Balinda leads a group of Data Scientists that do amazing things throughout Honeywell and writes and publishes children’s books about wildlife. Both are members of a medal-winning international dragon boat racing team.

Making Connections Using the Power of Interpretive Signage

Kristin Dean and McKenna Schaffer, Carolina Raptor Center

The father of interpretation, Freeman Tilden, once said “Information is not interpretation. Interpretation is the revelation based on information.” When thinking about interpretation, many people automatically think about education programs, keeper talks, ranger walks, etc. Signage is often underappreciated and underutilized. In reality, if used correctly, signs are one of the most important uses of interpretation at an animal facility. Interpretive signs can substitute an in-person educator. When educators are not available, interpretive signs are a key tool to help educate and inspire visitors. At the Carolina Raptor Center, we are transitioning to a new facility and our goals are to become accessible to a wider range of visitors, create cohesive signs throughout our trails, and to draw visitors to our signs in order to connect them to our birds and inspire them to want to make a

difference. We are going to discuss how we plan to accomplish these goals and the hurdles we have had to overcome in order to upgrade and prioritize our signs.

Kristin Dean is the Avian Husbandry and Collection Manager at Carolina Raptor Center. As the Husbandry and Collection Manager, she oversees the care and management of over 100 birds of prey. She has been working with birds, primarily raptors for the last 15 years. For the last few years, Kristin has aided in the design of Carolina Raptor Center's new facility. Some of the major projects include enclosure design, trail organization, and acquisition of new species. Over the past year, Kristin formed a sign committee at Carolina Raptor Center and has taken a leading role in creating new interpretive signage for the new facility.

McKenna Schaffer has been the Program and Event Coordinator at Carolina Raptor Center for a little over a year. As one of the educators, she teams up with a variety of ambassador birds of prey to present education programs and shows. She has her own team of birds that she works and trains with on a daily basis. McKenna also plans and organizes the four major events hosted onsite; such as International Vulture Awareness Day and STEM on the Wing Day. Her latest project is joining the sign committee, where she is in charge of writing interpretive content for the trails at the new facility opening in spring of 2020.

Incredible Ibis

Karena Marrero, San Diego Zoo Safari Park

When visiting a bird show, ibis are a species that are not often represented. Here at the Safari Park, we are lucky enough to work with two different species in our collection. We have scarlet ibis and sacred ibis flying three different natural behaviors in our show. In addition, our ibis are trained for personal interactions with guests and for a multitude of voluntary medical procedures. Our goal for this paper is to show how adaptable ibis can be to husbandry training, show behaviors and helping encourage our guests to conserve different species of animals.

My name is **Karena Marrero**. I went to Santa Fe College and graduated with an Associate of Science in Zoo Animal Technology. I started my bird training career in Orlando, FL with Natural Encounters. After 5 years I decided to take my gained knowledge to California where I now work as a trainer at the San Diego Zoo Safari Park. I've been on this team for just over 2 years now, continuing to grow and educate guests through our bird show presentations.

Don't Forget the Small Stuff

Mike Simmons, A World of Wings, UK

It's sometimes human nature to enhance everything we create, increase the size of the creations we make, and focus on scaling up the things that we work with and live with. There is a level of ambition found in us all, some more than others, but this ambition can leave behind perfectly good productions of our creativity. My question is do we need to always think big? If so, then "don't forget the small stuff!" For eighteen years, I've felt the need to progress in my field of work, but whenever I look back at my achievements, I'm sometimes proudest of the smaller and sometimes unnoticed achievements. These milestones in my learning and way forward were small but vital, without them I wouldn't have journeyed to achieve any more. Sometimes I didn't need to carry on the journey at all, I could have concluded my productivity long before my plan. In thought the birds I choose to work with are certainly not ambitious in their way of life. They don't have high aspirations and seem to settle for very straight forward day to day operations. We know they don't think big for there are so many small conditioning stages to reach high levels of activity with us in show environments etc. It's my hope that I'm compassionate in every way possible in the husbandry and welfare of the birds under my care but also the ways in which they are utilized for their roles within my small company. It's for that reason I've spent lots of time searching for what works and

thinking outside of the box, thinking big, exploring new avenues... but always coming back to the “small stuff” that works so well! In show production, animal care and training birds for different roles I’d like to share the “small stuff” that I refused to forget, overlook and chose instead to keep small in order to stay on track with my company goals.

Mike Simmons: My professional animal training career is soon to leave its teens and, in these years, I've adopted my own compassionate ways of interacting with the animals that I live with, live for, work with, and work for! There have been large scale shows, small scale tantrums and lots of flighted bird adventures along the way! Working through the wonderful world of zoos to professional training services, I feel relieved my time keeping skills are useless and missing my interview to become a police officer was fate. My most recent project is working for the British Government. Conservation is my passion!

Easy, Inexpensive, Experiential Learning Expeditiously.

Francie Krawcke, Michigan Avian Experience

For the moments you have a complicated scientific concept (i.e. bioaccumulation, taxonomy, habitat loss) and only a few minutes with your audience, experiential, kinesthetic and constructive activities are a perfect solution to share your message. This paper highlights easy and inexpensive activities perfect for the roving interpreter to a classroom demonstration and lots of teachable moments in between. Spotlighted research in Experiential Learning and the Constructivism Theory provides a framework to garner support from decision-makers, funders, and co-workers alike.

Francie Krawcke: Francie's Dad once asked her what she wanted to do with her life. Be happy was her response. Little did he know at the time she was to embark on over a 20-year journey that would take her to 35 different states and 2 countries teaching with birds of prey. With a degree from Northern Michigan University and as a Certified Interpretative Guide from the National Association of Interpretation, Francie is specifically trained in theory and practice of interpretation and environmental education. She has presented at national and international conferences, teacher training workshops, developed environmental conservation curriculum and had loads of fun. As Executive Director of Michigan Avian Experience, she continues to share her work with others.

Raptors Out of the Box: Modifying Traditional Approaches to Fit Unique Situations

Joe Whitehead, Shaver's Creek Environmental Center & Josh Sanko, American Bald Eagle Foundation

Shaver's Creek Environmental Center and the American Bald Eagle Foundation are committed to continued growth and creative training in order to provide their teams of avian ambassadors the highest possible quality of life. Our facilities share our out-of-the-box training and chose a few behaviors to focus on and share with the community at large. The recent movement in the field towards free flight programming has proven to be an empowering experience to many flighted residents, however, this system is not typically applied to non-flighted individuals. At Shaver's Creek, allowing a non-flighted bird the opportunity to explore and freely interact with their trainers, as well as new environments, can not only be enriching for the bird but can help connect the audience with the ambassador. The ABEF has explored encouraging natural behaviors in an unconventional way as well as utilizing breezeway space to extend training area, creating enriching experiences for guests and ambassadors. Taking traditional training practices or ideas and modifying them to fit training programs or educational messages can be beneficial to ambassadors and programming. Our hope is to inspire similar creativity in other facilities.

Josh Sanko is the Program Coordinator at the American Bald Eagle Foundation. While studying Wildlife and Fisheries Science at Penn State University, Sanko got his start with raptors as part of the Animal Care team at Shaver's Creek Environmental Center. Following a summer internship with the Foundation in 2018, he became a

full-time staff member in January of 2019. His work at the Foundation includes husbandry, training, and educational programming with nine raptor ambassadors of varying size and skill.

Joe Whitehead is the Amphibian and Reptile Coordinator at Shaver's Creek Environmental Center. Initially a Shaver's Creek Animal Care volunteer, Joe spent 11 months as an educator with Point Defiance Zoo and Aquarium before returning to Shaver's Creek in January of 2019. While Joe's primary focus is on establishing training programs for the center's resident reptiles and amphibians, he is also the primary or assistant trainer for 11 of the center's 15 resident raptors.

What Makes a Raptor a Raptor? Redefining How we Teach About Birds of Prey.

Erin Katzner, The Peregrine Fund

At The Peregrine Fund we often start our education programs by defining the characteristics of birds of prey. Our staff and docents guide a roomful of children through a discussion about sharp talons, hooked beaks, and keen binocular vision. We then dress them up as raptors, placing goggles and a fake beak on their heads and fake talons on their feet. Everyone giggles and remembers the lesson...but what about the raptors that don't fit neatly into that definition? Are vultures and owls even raptors or do they fall into some other grouping? Are raptors and birds of prey even the same thing? How do scientists define the group of animals that make up birds of prey? This paper dissects the newly published definition for raptors – a term that actually had never formally been defined in the past – and begins to re-think how we teach about this incredible group of birds.

Erin Katzner is an 18-year IAATE member, has been on IAATE's Board of Directors for the past four years, currently serving as past-president. 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 Director of Global Engagement 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.

FRIDAY FEBRUARY 28

Modified contact: Using Alternative Methods of Contact in a Free Flight World

Lacey Zeno, San Diego Zoo Safari Park

When it comes to protected contact methods of training, the mammal world has been implementing and perfecting safer methods to train animals for years. Working in a free flight bird environment makes many people think that protected contact isn't always possible. At the San Diego Zoo Safari Park bird show we have developed several different types of modified contact that have allowed us and the birds to be trained and cared for in a safer environment. We will explore different ways that we feed, train and fly birds using various degrees of protected contact that still allow our visitors, and our staff, to enjoy our animal ambassadors flying free over the tops of their heads.

Lacey Zeno: I began my career with animals working at dog kennels and vet hospitals. After recognizing my love for animal training I pursued a degree from Moorpark College and completed their exotic animal training and management course started my free flight bird show experiences working for Natural Encounters Inc. he amazing

group of trainers at NEI taught me how to become a better trainer. I currently am employed at the San Diego Zoo Safari Park where I have worked as an elephant trainer and am currently working as the Lead Trainer for the free flight bird show.

Enrichment for Parrots through Learning

Jennifer Cunha, Esq., My Reading Pets

Research demonstrates that parrots are capable of high-level cognitive processing, including inference-by-exclusion, counting, music preference, symbol use, and abstract concept processing. Yet captive parrots also have high levels of stereotypy. Researchers have suggested that enhanced enrichment can include non-traditional learning opportunities with varied learning, motor, attentional and sensory components by way of cognitive challenges that increase in difficulty upon mastery of tasks—as may be demanded in wild settings. While husbandry training remains an essential practice for avian care and welfare, here we explore the use of consent communication training, children’s book enrichment, and even the possibility of phonics and literacy skills as a way to challenge and engage captive parrots. Non-traditional enhanced enrichment opportunities may be a resource in addressing the ongoing cognitive enrichment needs of captive parrots.

Jennifer Cunha is an attorney who formerly taught inner-city children how to read. With that experience, she began teaching her cockatoos phonics and reading skills in 2016. Her parrots demonstrate mastery of grapheme-phoneme correspondence (reading words) and appear to have attained semantic processing (vocabulary development), three of the tasks required for literacy. Jennifer collaborated with University of Miami to investigate these reading skills, and their partnership has resulted in research that has been submitted for peer review and publication. Jennifer is also collaborating in avian research on a replication parrot literacy project, qualitative assessments of learning enrichment, semantic processing in parrots, and consent expression in animals.

Soaring: From Bird Shows to Medical Husbandry

Brenda Sanchez, Dallas Zoo

When starting at the Wildlife Show at the Dallas Zoo, my focus was learning how to train birds to do natural behaviors on stage. With free-flight behaviors, we hope to inspire guests to create a better world for animals. However, these last couple of years we started to train more behaviors for husbandry or medical purposes, giving the animals more choice and control of their environment. By training a variety of behaviors we are able to build a better relationship with the animals that we have the privilege of working with. I would like to focus on three separate behaviors that my team was able to train this year. One was a voluntary feather pluck that all nine of our macaws learned so that the feathers could be tested for bornavirus. The second behavior is a voluntary West Nile vaccine given to an Andean condor. The third is a hyacinth macaw receiving voluntary eye drops. Each situation is different, however they all began because the vet staff needed us to give or take something from the animal and it was our job to make sure we gave the animals as much choice as possible.

Brenda Sanchez started off her career in 2012 interning for the Birds of the World Show at the State Fair of Texas with Steve Martin and Natural Encounters, Inc. Eager to learn more about operant conditioning and presenting animals and their natural behaviors, she jumped at the opportunity to work at the SOAR Bird Show at the Dallas Zoo as a seasonal employee in 2013. Brenda has been so lucky to learn from so many great mentors, that she is now a supervisor of Animals Encounters at the Dallas Zoo, with a primary focus on the free flight bird experiences and the wildlife show. Brenda works with a variety of birds, training natural behaviors in order to inspire guests to want to create a better world for animals. Brenda became an active member of IAATE in 2015 and a professional member in 2018 and became a CPBT-KA in 2019.

Collaborative and Comprehensive Care for Injured Ambassador Harris Hawk

Krystin Maloney, Denver Zoological Foundation

Free flighted raptors are well known for their ability to inspire awe in any ambassador collection. Tucson, a male Harris hawk, has been doing just that for 16 years as part of the Denver Zoo's animal ambassador team. After suffering an injury, Tucson was left unable to fly. Denver Zoo is dedicated to providing the utmost care to every individual animal, and an interdepartmental effort began to help Tucson heal while undergoing the least amount of stress. Firstly, medical care was provided by our vet staff included daily laser therapy, bandage changes, and oral and topical medications. Secondly, physical therapy was performed through wing extensions and muscle massage. And lastly, husbandry training was used to maintain his trust and regain his ability to fly. This group effort was required for not only the physical well-being of the bird but also his mental well-being. Through choice-based training we were able to lessen stress and maintain our relationship while he underwent daily medical treatments. A number of husbandry behaviors were trained including voluntary hooding, wing manipulation, topical medication application, and flights. Tucson has made significant progress and has quickly returned to delighting guests, now with a unique and inspiring story.

Krystin Maloney is an ambassador zookeeper, animal trainer, and baseball fanatic. In her 5 years of zookeeping she has worked with a vast array of birds in Texas, as well as her current collection of educational ambassador animals in Denver, Colorado. Most of her work day consists of caring for a variety of reptiles, amphibians, mammals, and birds. Inspiring the masses with unique animals and their impressive, natural abilities is what connects Krystin's love for animals with her passion for environmental conservation. Krystin has a Bachelor of Science degree from the University of Missouri in Animal Science and a Master of Arts in Biology through the Advanced Inquiry Program from Miami University. She hopes to combine her educational background with her love for animal training to provide the most impactful demonstrations and leave guests feeling inspired and equipped with the tools to go out and conserve the natural world.

Fly Free: Creative Choice and Control Options

Justin Eckelberry: Zoo Atlanta

It is great to see the concept of allowing choice and control for the animals we care for and train, taking off in the animal care industry. So many people have gotten on board with pushing the limits in trying to give animals as much safe choice as possible. In many cases trainers are only limited by their own creativity. At Zoo Atlanta we have experimented with some options of giving control to our birds in situations that have previously limited such abilities. This paper goes through some of those ideas and how we got there, as well as comparisons to "older" methods. From complete glove training without the use of jesses, to medical procedures including full physicals, to finding new and creative ways to enrich our birds by letting them "just have fun" in novel open-air spaces, we hope even more trainers walk away appreciating the power of choice and control.

Justin Eckelberry: I am a Lead Keeper in Zoo Atlanta's Ambassador Animal Department managing the bird show. I have been professionally training a variety of animals since I was 14. It wasn't until I dove into the zoo world at Columbus Zoo and Aquarium that I started learning the science behind what I was doing. From Columbus, I returned home to Georgia, and shortly after began working for Zoo Atlanta. I have enjoyed the last five years here learning all I can about the science of behavior from all over.

Developing a Training Program in Large, Mixed-Species Aviaries.

Catherine Vine

Training birds in large, mixed species aviaries can be a daunting prospect. This paper will cover some techniques that can be used to simplify the process and will discuss useful behaviors to train that can facilitate husbandry and management of the aviary. It will also focus on the benefits to creating a training program with exhibit birds along with tips for gaining support from managers.

Catherine Vine has been working with birds in large aviaries for over seventeen years. She has worked with a large variety of species including parrots, passerines, shorebirds, pheasants, waterfowl and doves. She recently left her position as a bird keeper at the Philadelphia Zoo to pursue her dream of living in the Pacific Northwest and exploring the wilderness there.

The Care, Management and Training of a Large Flock of Homing Pigeons in a Las Vegas Show

Nancy Rouas, Petting Zoo 2 U & Wings Above

White homing pigeons fly across the stage during the show LeReve twice nightly inside Wynn Hotel/Casino in Las Vegas, NV. They fly five nights per week and approximately 500 shows per year. This paper will examine how to successfully care for a flock of over 130 pigeons while having them fly in a major show production. It will explore use of different training options and final implementation into the show setting. It will include the use of feed supplements, weekly body condition evaluation, rotational time off, vaccination schedule and bi-annual routine veterinary testing for zoonotic disease. It will outline the methods of maintaining higher flock numbers with improved vigor while reducing the number of 'fly offs' during the show. Load numbers for birds going to the show is affected by seasonal temperatures, amount fed the night before and sometimes by who is loading them. Sustained higher flock numbers is accomplished by providing a larger living quarters plus improved husbandry techniques. Maintaining the larger flock allows for a margin of error where contractual numbers are still met even when not all the birds go in to work. Healthy flock numbers are directly related to amount of living space and husbandry practices. 'Fly offs' are greatly reduced when allowing the birds to choose whether or not they want to go to work nightly. Larger trained flock allows for rotational time off and allows all birds to have some down time during the year thus improving overall health and fitness of the group.

Nancy Rouas: I graduated from Moorpark college EATM program in 1994. Then moved to Las Vegas and worked as a camel handler in a show at the Luxor Hotel/Casino in '94-'95. Continued working for Royal Productions at Excalibur's Tournament of Kings from '95-'09. Became an animal care specialist then curator for the Rainforest Cafe inside the MGM Grand '99-'04. Started my own business 'Petting Zoo 2 U' in 2002 and became the regular fill in for the previous contract holder of LeReve at Wynn Hotel/Casino in Sept 2009. The opportunity for me to take over the contract for myself arose in Jan 2013.

Compassion Fatigue – Focusing on Human Welfare as well as Animal Welfare

Kelli Inglis, Wildfowl and Wetlands Trust, UK

Most people will know that caring for animals isn't easy. There's a lot of physical work involved, nutrition is complicated and animal behavior is complex. However, what a lot of people coming into the industry aren't forewarned about are the other struggles that care givers take on... mental health. At some point in our careers most of us will struggle with our mental wellbeing, whether it be stress of the job, anxiety or even worse, compassion fatigue and burn out. Unfortunately, there is still a lot of stigma around mental health, but this shouldn't be the case. So what is compassion fatigue? It's fatigue, emotional distress, or apathy resulting from the constant demands of caring for others. It is also known as secondary traumatic stress disorder. Why am I talking

about compassion fatigue? I want to create awareness, help others identify with it, realize that it's okay to not be okay, and encourage people to talk more openly about mental health. At the end of the day talking about it is our first step towards improving our own welfare. How can we expect to provide care for others if we don't care for ourselves?

Kelli Inglis: I have been working as a zoo keeper and trainer for 7 years now. In that time I have worked at a few different facilities helping them work towards positive and voluntary husbandry care with their bird species. During my time at one collection, working with a fantastic trainer and mentor, we helped turn the bird training from food deprivation to positive reinforcement, changing the lives of the birds in our care. From then on husbandry training became a passion of mine and I started a business training pets for husbandry care. Since then I got offered a dream job to start up a free flight bird display from scratch for a well-known Wetland charity in the UK. Now I spend my days training unusual species, such as magpie geese, for free flight displays, as well as husbandry care.

The Future of Zoos

Steve Martin, President/CEO, Natural Encounters, Inc.

Walt Disney said, "First, think. Second, believe. Third, dream. And finally, dare." I *believe* dreaming is what made Walt Disney so successful, and what helps shape zoological facilities of the future. Dreams have inspired me toward many goals, some achieved and many still living in my imagination waiting for the right condition to take flight. I *dream* the zoological facility of the future will flourish in a safe zone where daring to act on dreams is supported and nurtured, and dreams that don't work out are seen as opportunities to start again with more information, rather than a failure to be punished through peer pressure or criticism. In future zoos, all animal care professionals will have a clear understanding of the science of behavior-change and be able to apply these principals at extraordinary levels with every animal at the facility instead of just the animals in their section. Through this exemplary training, animals experience optimal welfare and desirable behaviors will replace problem behaviors. I see animals in environments rich with behavioral opportunities, empowered with control, and motivated to use their senses and adaptations to "earn" a living, much like their wild counterparts. When animals do what nature built them to do, their behavior will convey insights and stories that inspire caring and conservation action in guests at our facilities.

Steve Martin is President/CEO of Natural Encounters, Inc. (NEI), a company of over 45 professional trainers who produce and present educational animal programs at zoological facilities in the US and internationally. He has served as an animal behavior and visitor experience consultant for over 100 zoological facilities around the world. Steve is an instructor at the AZA Animal Training School, a member of the AZA Welfare Committee and AZA Behavior Advisory Group. He is also a Trustee with the World Parrot Trust, Board Member of the International Association of Avian Trainers and Educators, and President of Natural Encounters Conservation Fund, Inc. a company dedicated to raising money for 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.